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EXECUTIVE SUMMARY

Introduction

Sri Lanka has a long history of multi modal transport development. However its current transport system is considered unsatisfactory and weak. Even though public transport provided the backbone of passenger transport services, continuing neglect has led to its gradual deterioration and lack of modernization. Motorization has rapidly increased with this decline, fuelled by income rises especially in urban areas.

Sri Lanka has an operational fleet of 2.2 million vehicles which make up around 20 billion vehicle km annually. The transport activity historically has been increasing at around 5 percent per annum, with an increase in per capita mobility of around 4 percent per annum. The road transport now accounts for 93% of passenger travel and 98 percent of freight transport. Buses carry 61 percent of the passengers, while para-transit in the form of three wheelers and taxis makes up another 6 percent. Transport activity is most dominant within the Colombo City and its environs with an estimated 220,000 vehicles entering the city daily carrying over 1 million passengers of which, 68% arrive by bus, whereas the railway carries another 5% with only 26% using the modes of private transport.

Overall the growth in passenger travel has kept pace with per capita incomes. For example, the fifty year growth rate of passenger km and per capita incomes have been about the same. This currently represents an average per capita mobility of over 4,000 passenger km per annum and a vehicle use of 1,000 km per annum per person. According to international norms, this is around 3 times the personal mobility observed for other countries having a per capita income of USD 2000. This high level of mobility has been observed for several decades starting with the rapid expansion of island wide bus services by the nationalized Ceylon Transport Board (CTB) in the 1960s where mobility rates increased by 7 to 8 percent per annum even though there was no corresponding increase in per capita incomes.

Growth

With the anticipated 6 to 8 percent growth in GDP, it is expected that the demand for passenger mobility will also increase at around 7 to 9 percent. Based on historical trends, for such a growth rate the demand for passenger mobility is expected to double between 8 to 10 years. If in addition to this, the current rate of shift from public to private transport continues at 1-2% per annum then this period will be reduced to 7 years. If public transport deteriorates further or if taxes on vehicles and fuel are reduced further this could reduce by a further 1-2% per annum, then the time for doubling road space would reduce to 6 years.

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1 Shafer, Andreas, Long-Term Trends in Global Passenger Mobility, UK, 2008
This will put enormous pressure on the transport infrastructure especially the road network in urban and suburban areas where the growth in economic activity is currently concentrated. Since it will not be possible to double the road capacity in these areas in such a short span of time, optional strategies would be to open up new urban areas or to rapidly improve quality of public transport.

As per capita incomes are expected to increase over USD 4000, most families would be able to afford a private vehicle. This situation has recently been reinforced with the Government announcing the reduction of duties by half on passenger cars and utility vehicles. It is possible that Sri Lanka will observe a slowdown in registration of two and three wheelers with more four wheeled vehicles being imported due to income increases, availability of low cost cars and the reduction of import duties. The deterioration of public transport will hasten this process.

Currently, vehicle ownership is over 100 vehicles per 1000 persons. Of this, around 2/3rd of the fleet is made up of two and three wheelers as well as goods vehicles including vans. Buses used for public transport make up around 24,000 representing 1% of the fleet, while all forms of goods vehicles including land vehicles make up around 300,000 vehicles.

**Main Issues**

Even though Sri Lanka has a high density of roads, especially at the rural level, the quality of roads is an issue with most heavily trafficked roads having out lived their design life. Even with numerous foreign funded rehabilitation programs, a large part of the road network continues to remain in an un-maintainable condition where road bases and sub-bases have deteriorated and design standards are inadequate as widening required land acquisition. Road speeds have not improved with many urban roads being congested during most of the day time. Road safety is also an issue with design requirements especially those required for vulnerable road users including non-motorized users being inadequate or in most cases non existent.

The railway though in continuous operation for nearly 150 years, requires re-engaging in the passenger and freight market it lost to road transport over the last several decades. With congestion imposing restrictions for continuous growth of road based transport, the railway requires more market oriented approaches as well as a strategy to develop its markets including improved integration with ports and airports as well as with multi modal logistics centers and multi modal passenger terminals inclusive of park and ride facilities. Failure to do so will result in the railway further falling behind in competing with road transport, especially after the challenges that will be posed with the completion of the expressway system that is being constructed. Issues in management of the railway also remain an obstacle to development and to improving both its technical and financial efficiency.

Domestic air transport even though beginning to become popular again, has been largely undeveloped especially due to the many restrictions were imposed on domestic flying during the period of conflict. Coupled with poor land transport speeds, air travel is a potential mode of internal transport for those with higher incomes and for foreign tourists especially to reach the more distance parts from Colombo such as the east coast resorts and the north.
More than 90% of the total goods carriage within Sri Lanka is handled by private sector road haulers. As in bus transport, there are very few large scale operators. Most owners can be categorized to Small and Medium Entrepreneurs (SMEs) having just one or a few trucks with only a handful of companies owning over 50 trucks.

Legal Provisions for Supply and Regulation

By virtue of the 13th Amendment to the Constitution, Provincial Councils are not vested with power to make statutes with respect to the functions set out in the Reserved List. Hence in addition to policy formulation and enactment, the implementation of any subject or function which has not been explicitly included in the Provincial Council List or Concurrent List can be enforced by the Government through Acts of Parliament such as the Railway Ordinance, Road Development Authority Act, Motor Traffic Act, Civil Aviation Authority Act, Maritime Act, Sri Lanka Ports Authority Act, National Transport Commission Act etc.

The Ministry of Transport on behalf of the Government of Sri Lanka is responsible for National Policy formulation and enactment on all matters pertaining transport within the National Boundaries of Sri Lanka, including

- Railways
- Highways declared by law as National Highways
- Carriage of passengers and goods by railway, land, sea or air or by national waterways in mechanically propelled vehicles

The agencies under which the Ministry of Transport discharges these functions are as follows:

- National Transport Commission
- Sri Lanka Transport Board
- Sri Lanka Railways
- Department of Motor Traffic
- National Transport Medical Institute

In addition, the National Council for Road Safety and its National Road Safety Secretariat function within the Ministry of Transport. The Road Development Authority is under the Ministry of Highway and Road Development. The institutional structure of organizations and their scope and performance have been detailed in Chapter 3.

Mahinda Chinthanaya

A study of the Government's Policy framework the Mahinda Chinthanaya (2005 and 2010) for the transport sector has been carried out in Chapter 4 of this report. It concludes that for the purpose of this review, that the MC should be considered mostly as a vision statement as opposed to a detailed policy proposal. All the projects and proposals that have been included have not been fully studied and therefore agencies are hesitant to include some of them for funding without further study. In some
Review of Sri Lanka Transport Sector

cases other projects have been included over and above what has been mentioned in MC, while those in the list have been delayed.

The policies in the Mahinda Chinthanaya are implemented mostly through the annual budget and the allocations that are provided for capital projects. Each Ministry is required to follow and report on the progress of the projects listed in the Mahinda Chinthanaya (MC) policy. Even though MC is a broad socioeconomic policy proclamation it contained projects the acceptability and priority of which seem to change from time to time.

There are statements made with respect to roads, railways, buses, aviation, maritime, rural transport, public transport, urban transport and three wheelers in these documents the details of which could be referred to in Chapter 4 of this report.

Transport Sector Policies

There are three specific policy proposals that have been formulated for land transport and for aviation and maritime transport by the respective ministries based on the Mahinda Chinthanaya policies set out in 2005. The National Policy on Land Transport has been formulated by the Ministry of Transport and approved by the Cabinet of Ministers in 2009. A fuller description of the land transport policy principles are set out in Section 5.1 of this report. The National Roads Master Plan (Section 5.2) and the Aviation Policy (Section 5.3) are also two such documents that set out the respective investment strategies.

Public Investment Plan

The Public Investment Plan for the period 2010-2015\(^2\) indicates that the transport sector inclusive of aviation and maritime sectors will receive an investment of Rs 160 bn for 2010 representing around 2.9% of the GDP as Government Capital Investment and a further Rs 27 billion as private capital investment, with most of it for land transport sector. This is to increase to Rs 263 bn as Government investment and Rs 119 bn from private sources, for land transport, ports and airport, making up to 3.6% of GDP.

The total investment for the six year period is Rs 1.88 trillion with nearly 60% of this expected from foreign sources almost all of which, other than Rs 82 billion for ports is expected as government borrowings. Domestic private investment is estimated at around Rs 367 bn (i.e. 19% of total for period) of which Rs 249 bn is for land transport indicating a substantial increase in road vehicles as no land transport infrastructure projects for the private sector have been identified as yet.

Currently all current road, rail, airport and seaport development projects are government funded. Presently transport sector investment is limited to rolling stock. In this case also approximately 1/3rd of bus transport and rail transport is government provided. The two main airlines are government

\(^2\) Ministry of Finance, National Budget Division, 2010
owned. As such, private sector investment is confined to mostly bus, para-transit and trucking mostly through the domestic SME sector, which makes up an estimated Rs 27 billion per annum in new vehicles alone. Compared to this the domestic corporate sector investment in transport infrastructure has been limited to a few instances of warehousing in logistics.

However, the Public Investment Plan envisages that there would be foreign private investment in the port sector which will match government foreign borrowings for investments by 2015, while in the domestic investment in the port sector the investment by the private sector is expected to match and exceed government domestic investments from 2012 onwards. In the aviation sector while no foreign private investments are planned for, domestic private investment is expected to overtake government domestic investment by 2011. It is also pertinent to note that the PIP expects that in the wider transport sector including roads, ports, aviation and land transport that by 2015 total private sector investment would increase from 0.5% of GDP currently to 1.1% of GDP by 2015.

In the analysis of spending by sector it is seen that 51% of the current Government investment is to roads compared with 20% for ports and aviation. The 28% for transport includes mostly the investment for government buses and railways. The plan shows some foreign investment for modernizing mass transit from 2010 onwards which is still not determined.

Traffic congestion costs in the Western Province alone in 2006 were estimated at Rs 32 billion, while accident costs are estimated at around Rs 20 billion per annum. The cost of avoidable delays, breakdown, waiting time in public transport are estimated to cost at least another Rs 30 billion to users, while losses in productivity due to issues of poor reliability, flooding, damages of goods in transit and other logistics related costs of the transport network is estimated at another Rs 40 million at least. The combined losses would thus amount to over Rs 120 billion per annum, more than the annual public investment allocation for roads in 2010. This cost translates to 1/6th of the total expenditure on the land transport sector by both government and private sectors. Thus the inefficiency may be termed at 1/6th which is considerably high.

The losses amounting from sub optimal investments and lost economic productivity, poor design and construction supervision, drainage damage and other losses cannot be accurately estimated, but is likely to be greater than this. These together almost always results in transport in all its forms and variations- be it public or private, passenger or freight, road or rail, urban or rural to be often among the most complained of public services deemed as being unsatisfactory by both private and corporate citizens.

It is however not clear from the Public Investment Plan if the proposed investments have sufficiently addressed the current issues of congestion and safety and if the external costs arising from these would be reduced. Current investment plans do not include specific transport demand management strategies, urban transport strategies or road safety strategies.

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**Regulation to Solicit Private Sector Participation**

In the transport sector provision of transport infrastructure is almost wholly in the hands of the government. On the other hand, provision of transport services in Sri Lanka is mostly in the hands of the private sector.

In providing passenger services, the state-owned SLTB and SLR handle only around 25% of the passenger market. The government share in the freight transport is around 3%. The government interventions in improving transport are still concentrated towards strengthening the state operations mainly the SLTB and SLR. As a result it often ignores the resource utilisation and financial inefficiencies these organisations possess.

Alternately very little attention has been given to policy directions on how the private sector could be improved or how public transport could be improved to a level that it provides a real alternative to private vehicle use.

Private sector in all these service provision areas remains informal and disaggregated. It still does not possess the capacity to drive change. For example, aggregation of private bus operators has been attempted since 1998 but has not been continuing to a plan. Even though some successes have been recorded there is no consistent policy that determines government action to ensure that such successes are built upon. Para transit has been largely unregulated and left ignored as has been the freight transport industry. No qualitative developments have happened in these sectors. There is a need to strengthen these SME operators to begin such processes internally without waiting for government intervention and regulations to be framed that compel such action.

While most state owned transport infrastructure and services still remain with the government, the policy interventions carried out in securing more private sector participation have in fact been reversed in most instances. The peoplisation of the state bus system was a failure and resulted in the re-establishment of the SLTB in 2005. The divesture of shares in the national airline was short lived and government has bought back shares in 2010. Even the attempt at making the SLR a government corporation in 2003 was reversed in 2004.

On the other hand, attempts at formalising the informal private sector now dominating transport service provision has also been a failure. The formation of bus companies has been dragging on from 1998. Attempts at regulating the three wheelers and other modes of para-transit have also been futile.

**Road Sector**

National Highways are presently managed by the Road Development Authority (RDA) which is a statutory body under the Ministry of Highways and Road Development. It is responsible for the maintenance and development of the National Highway Network, comprising of Trunk Roads (A Class- sub categorized as AA and AB) and Main roads (B Class). It is also responsible for the
planning, designing and construction of new highways, bridges and expressways to augment the existing network. The National Highway Network consists of 11,919\(^4\) km of roads and 4,200 bridges (span of more than 3 m) as at the end of 2009.

The RDA has a workforce of about 3,675 employees under the Shops and Office Act on permanent and contract basis comprising of engineering, technical, administrative, accounting and other support staff. In addition it has about 7,443 employees under the Wages Board of Engineering Services employed for routine maintenance work. However, RDA head office operates only with 415 employees approximately.\(^5\)

In the road sector there have been many unsuccessful attempts at attracting the private sector for construction of roads as private-public partnerships in Sri Lanka. There are currently no toll roads or collection of tolls. The only instances where private sector is involved is in the provision of manually operated ferry services on low trafficked roads across water bodies where bridges are yet to be.

Even though Sri Lanka has an impressive length of road network its performance in terms of speed and safety are not satisfactory. The TransPlan\(^6\) road database on the national road network shows that less than 2\% of the network has an IRI (roughness index) of less than 2 m/km. However, according to the roughness data collected in 2006 to 2008 approximately 33\% of the Core National Road Network is in good condition in terms of roughness measured as IRI less than 5.5m/km. About 19\% has 5.5 to 7.0 m/km roughness\(^7\). In fact about 9\% of the length of the network has an IRI of more than 10 m/km which is considered most unsatisfactory. With the national network in such poor standard, the provincial and local authority roads for which there are no measured indicators are bound to have worse conditions.

The primary issues facing the road sector have been identified. Among them is the sustainability of the level of expenditure\(^8\) required to maintain the required level of maintenance for the extensive road network in the country. The addition of the expressway network will be a new expenditure. Historically funding for maintenance as against new projects has been a low priority. Hence there are fears that unless an effective road fund is in place even the rehabilitation programs currently underway may not have adequate funds for even a minimum level of preventative maintenance.

There are also concerns regarding the poor design standards of existing roads particularly with respect to issues of both vertical and horizontal alignment. Correcting these in rehabilitation projects have been a problem due to issues in land acquisition. In fact some rehabilitation projects have not considered any re-aligned making improved roads less safe at bends and also at intersections, where facilities for pedestrians have not been provided. In fact in adequate attention on road safety issues in road sector projects has been a mounting problem. Moreover, changes required in geometric design of roads to provide priority space for public transport in urban areas is yet to be implemented even

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\(^4\) Database, Planning Division, RDA
\(^5\) Road Development Authority, Annual Report, 2008
\(^6\) University of Moratuwa, 2006
\(^7\) Planning Division, RDA, 2008
\(^8\) Kumarage, Amal S. ‘Roads Public Expenditure Review’, World Bank, June 2006
though policy statements have been made to this effect. The road construction industry also is rapidly depleting in human resources as well as in capacity for local research and development. The difficulties in the SME road construction sector is also another point often stressed as continuity of work has been highlighted as an obstacle for the steady growth of the sector.

The highway strategies are centered on the main six areas identified in the National Road Sector Masterplan (2007-2017) which are:

- Construction of expressways and highways
- Widening of highways (rehabilitation)
- Reduction of traffic congestion
- Road maintenance and rehabilitation
- Bridge rehabilitation and reconstruction
- Land acquisition and resettlement

Descriptions of these are found in Chapter 6.1 of the report.

**Rail Sector**

Railway operations in Sri Lanka from its inception have been in the hands of the government. Private sector participation is limited and restricted to non-core functions. Passenger use has increased even though growth has been somewhat erratic. The freight carriage has increased steadily. But neither has been significant enough to make a serious shift in modal share to the railways.

It is also noted that the year 2008 was treated as the base year for long-term development of Railways. A capital provision of Rs.16, 984 mn was allocated for this purpose. Of this, nearly Rs 10 bn was utilized. The total financial recovery of operational costs was around 42%, while the recovery on total cost in 2008 was 20%.

One which limits the development of the railway is the difficulties in improving management of its 17,000 strong work force and to introduce modernization. Modernisation itself includes signals and communication systems, ICT systems, improved stations and warehouses and new track in several areas. Most of the rolling stock is considered obsolete and needs replacement. The lack of administrative flexibility provided to a government department has also been cited as the reason for the inability of implementing changes required for the railway to be translated to a commercially viable institution.

Operational issues such as safety at road rail crossings have also become a sensitive topic. With the opening up of the north and east, plans are underway to relay tracks to the north and to restore services. These services were the most rewarding for the railways in previous times. The longer distances are ideal for long distance passengers as well as goods transport. The increased port activity
and hubbing operations planned for Sri Lanka also open up opportunities for the railways to increase its goods transport volumes for which it needs a more commercial approach. Some new lines and links are also planned.

The strategies for increasing the modal share of the passenger and freight sectors from the present 6% to 10% and from 2% to 5% respectively by 2016 have been discussed in Section 6.2.2.

**Bus Transport**

There are an estimated 23,228 buses operating public transport services in Sri Lanka. Of these 4,758 are government owned Sri Lanka Transport Board buses while the balance is privately owned. Of the privately owned buses, 3,058 are issued inter-provincial permits by the National Transport Commission, while the others are issued permits for intra-provincial transport services by the relevant provincial authorities.

While the state operator the SLTB, is the one time monopoly operator whose market share is now around 27%, it provides services throughout the country and is contracted for a number of socially necessary services such as school buses, rural services and night services. Its primary role is to provide stability in the market and to prevent monopolistic behavior on the part of the private operators.

Several attempts since 2005 to improve management at depot level have not been entirely successful. However centralized management control has resulted in greater discipline and operational output even though financial profitability is still not reached partly due to a sizeable excess staff in certain categories as well as inability to increase revenues with more operations. It was estimated in 2008 that around 8,000 of the work force of 36,000 was excessive for the current level of operations and technology used. More automation and use of IT in accounting and in operations could reduce this by a further 10,000.

The operational cost per bus km for SLTB in 2008 is reported as Rs 57.65. The earned revenue is accounted for around 74% of this cost which includes the earned subsidies but excludes the wage subsidies granted by Treasury on Cabinet approvals. The operating cost is generally on par with that of the private sector, but unlike the private sector its revenue shortfalls makes it continue to depend on general subsidies. This is partly due to management inefficiencies, lost revenue due to operating routes and times that are unprofitable and are yet to be included in the approved subsidy program and lack of commercial orientation. However this gap has reduced from the 41 percent shortfall in 2005 when the SLTB was re-established.

It should also be noted that the SLTB has gone through a full cycle of decentralization, peoplisation, aggregation and now centralization. It has also gone from nationalization to various forms of attempted privatizations and back again as a State Enterprise. The organization with all its operational inefficiencies is still considered by a significant majority of users, as necessary to counter the private sector cartels and the abandonment of services during lean periods and under patronized areas. However it lacks the caliber of management required for it to provide a top tier service. Management is often in the hands of trade union leaders and favored members. Decision making is often for non-
commercial consideration and aptitude for operational efficiency is absent in most instances. An influx of competent managers, training of middle level managers and revamping operating, procurement and human resource management procedures are a priority if the SLTB is to become financially viable.

On the other hand the private buses are operated by individuals most of who own just one or two buses. There are very few fleet operators with no one owning more than 50 buses in a total fleet of over 18,000.

It is the stated intention of the Government in the Land Transport Policy (2009) to streamline the bus industry with a number of policy level interventions that will essentially convert the private bus industry from its present condition of individual entrepreneurs who are loosely regulated, to one that is regulated through an institutional mechanism.

Improved network planning, reducing transfers, introducing better quality buses. Facilitating multi modal transfers. Improving timetabling and scheduling, safety, restoration of neglected rural services, introduction of ICT based services, improvements to physical facilities at terminals and bus shelters and improving human resources in bus sector management and regulation have been identified as key issues that need to be addressed. Fuller description of these strategies are found in Section 6.3.2.

**Para Transit**

Para-transit, which is predominantly made up of over 300,000 three wheelers, also includes a wide cross section of other services ranging from school services to rural vehicles, all of which are also fully deregulated. The high rate of accidents, low productivity and collusive behavior are reasons why some degree of regulatory control may be required for these sectors.

There have been some recent efforts to organize this sector. Some taxi companies have continued successful operations Call Centre operations in Colombo. This is now being extended to the three wheeler industry as well. However, there is a strong preference both from passengers as well as suppliers to continue with the informal and unregulated industry.

The foremost issue is the apparent over supply of the market and the corresponding under utilization which has driven up fares due to cartelized operations. While it appears likely that fares could be regulated as in the bus sector, the only way in which prices would become reasonable is when the alternative opportunities for the youth that look to employment in this sector are found and the number of TWs in the market reduces thereby increasing utilization which will hopefully lead to fares also being reduced or at least held constant.

Safety regulation is a critical feature with many reports that a significant proportion of drivers are unlicensed and that three wheelers are involved in traffic violations, accidents and even crime. The Land Transport Policy has announced a policy initiative to formulate these around a Registered Operator with fare, contact number and other information displayed for passengers.
Aviation

Sri Lanka's Aviation sector consists of one International Airport and 12 domestic airports. Bandaranaike International Airport (BIA) is the only international airport in the country while Ratmalana and Palalli are the main domestic airports operating at present. The BIA operates around 80-100 aircraft a day with a turnout of over 4 million passengers per year and 150 tonnes of freight.

All airports in Sri Lanka are State owned and managed. Funds for their development are found either through foreign loans or through Treasury Funding or a combination of both. While the study of a 2nd runway is in progress, there have been discussions regarding the construction of a 2nd international airport in Sri Lanka, there have been preliminary studies in for different locations in the southern part of Sri Lanka.

A new location in Udamattala between Hambantota and Thanamalwila has being investigated and construction has commenced at present.

Government investment will focus on improvement of traffic control, capacity, safety and security in the Bandaranaike International Airport. Private sector involvement are to be confined to the provision of landside services such as international and domestic aircraft services, food and beverage concessions, duty free shopping complex, taxi services, parking and hotels facilities near by airport. These strategies are described in Section 6.4. It is stated that public and private partnership will be promoted to develop new airports, and improvement of selected infrastructure in the existing airports.

Sri Lanka has signed Open Skies agreements with six countries. Sri Lanka intends to focus specially on obtaining Open Skies agreements with countries which are potential providers of tourism, trade and investment into the island.

The need for developing the domestic airports has also been highlighted particularly to cope with the renewed demand for tourism. The integration of all airports and in particular the BIA with other modes of land transport and the use of waterdromes and other airdromes for developing recreational and educational activities has also been identified as opportunities.

The current Srilankan Airlines is the business successor to Air Lanka and previously Air Ceylon both of which were fully owned by the government. With Emirates buying over 40 percent of the shares of Srilankan Airlines in 1998, they were appointed as the Strategic Management Partner for the airline. However the deal was debated through out, on charges that even though the airline was showing a profit this was a poor deal for the country. In 2008, the Government terminated the management agreement and has in 2010 re-purchased the shares from Emirates. This experience of divesture and attempts at restoring government management is something that needs to be studied and lessons learned there from.

Mihin Lanka is the State-owned low cost provider. In 2005 six private companies were invited to begin low cost operations. However these services did not get final approval and only Mihin Air a State-owned airline provides services. This airline too recently only resumed services after suspending operations due to financial problems. The Air Force too has entered the domestic air passenger transport services.
In aviation services, private sector entry has been limited due to difficulties in raising adequate capital as well as finding trained professionals in aviation. Getting the relevant approvals has also been cited as a barrier.

**Land Bridge to India**

The Government’s plan to construct, 400 km of high mobility roads required to support the island’s growing economy could become a part of an Asian Highway system in the future if a land bridge were to be built between India and Sri Lanka. At present the Asian Highway is identified to be extended to Sri Lanka. There is need to undertake a feasibility study for the purpose of a 32 km land bridge. The approval of the respective Governments would have to follow subsequent to establishing technical, economic, social, environmental feasibility and a sound investment plan as well.

As a forerunner, the rail-ferry service which operated till the mid 1980s is to begin operations between (a) Colombo and Tuticorin and (b) Colombo and Cochin. The proposal for the service between Colombo and Cochin was approved by both countries in principle in June 2009 in Colombo.

**Logistics**

The freight transport operation is deregulated. Around 97% of freight movements are handled by the road transport. The freight market share of the Sri Lanka Railway has come down to 2% in the recent past, from 32% in 1979 showing a drastic decline in the efficiency and competitiveness of SLR in handling freight. All three commercial ports had been connected by railway lines. However, no trains operate at present to or from the Colombo Port.

It is evident that more than 30% of the agriculture produces go waste before reaching the consumer. Marked differences between farm gate prices and retail prices prove the inefficiency in perishable produce transportation. This highlights the problems of high transport costs in most sectors of the economy, indication greater investment in the development of the logistics for goods transport and the supply chain. Strategies which include a policy intervention for government to undertake in planning and regulation have been discussed in detail in Section 6.6.

**Safety**

In order to improve the road safety situation in Sri Lanka, the Ministry of Transport and Highways in 1996 established a National Road Safety Secretariat (NRSS). In 1999, the National Council for Road Safety (NCRS) was established as per Motor Traffic (Amendments) Act No. 05 of 1998. However at present NRCS has only confined to two main activities;

- Paying compensation to hit and run accident victims
- Road safety awareness programs in educational institute level
Other Transport Issues

Other areas that have been discussed in the report include

- Rural and Plantation areas transport (Section 6.7)
- Human Resource Development (Section 6.8)
- Energy efficiency (Section 6.9)
- Planning & Coordination (Section 6.12)
- Research & Development (Section 6.13)

Provinces

Certain aspects of transport are presently devolved to the Provincial Councils (PCs) through the 13th Amendment to the Constitution affected in 1989 as per Provincial Council List, which are specifically:

- Regulation of road passenger and goods transport services by motor vehicles within a province
- Provision of road transport services within a province

With the advent of the Provincial Councils, and the Provincial Council Act No. 42 of 1987 and the Provincial Council (Consequential Provisions) Act No. 12 of 1989 which established legislative and executive powers at the provincial level allows a Provincial Council to make statues pertaining to the regulation and provision of road transport services within the province provided they are in conformity with the National Policy and Acts of Parliament. Currently there are three agencies in each province that executes these functions in each province. These are:

- Provincial road development agencies
- Provincial road passenger transport agencies
- Provincial Commissioner of Motor Traffic

The report studies the situation in five of the provinces.

Southern Province

In the Southern Province, there are a number of developmental projects which are in progress currently. These include the:

- Southern Transport Development Project (STDP)
- Hambantota Sea Port
• Southern Highway Extension Project
• Second International Airport in Udamattala
• Extension of Railway line from Matara to Kataragama

However to-date, there is no multi-modal transport study undertaken for the mega development projects being planned for Hambantota. These major projects, all of which are transport projects namely a port project, an airport project, a highway project and a railway project are planned independent of each other. There is a very significant development potential arising from each of these. However the combined synergies have not been studied by any agency. The duplications that may arise have also not been identified.

Moreover the other development requirements to ensure the best returns for these investments in terms of supporting transport infrastructure and services such as bus and trucking services as well as railway services and logistics provides, hubs etc. have not been discussed yet. This includes identifying the different agencies responsible for provision of the infrastructure or services. This is particularly important since transport is provided at all three levels of government and identifying what each levels and what each agency under each level of government should undertake, needs to be planned and coordinated.

Northern Province

Soon after ending the humanitarian operations in the north last year, the Government appointed a 19-member Presidential Task Force to handle the “Uthuru Wasanthaya” Program which aims to implement a set of short-term and long term provincial development programs aimed at rapid resettlement and re-development. The Ministry of Highways and the Ministry of Provincial Councils and Local Government have identified several roads in the national and provincial networks to develop under the Uthuru Wasanthaya program for which foreign funding sources have been identified. Most of these projects are presently nearing completion of design with construction expected to begin shortly.

Another project, the Uturu Mituru program to restore the railway line to Jaffna has commenced with local donations and Indian assistance. It is envisaged that with the restoration of rail track the once popular rail travel between Colombo and Jaffna would once again be restored especially since travel time is expected to reduce to 6 to 7 hours by intercity express. Steps are also being taken to restore the connection to Mannar from Medawachchiya.

With the rapid development of infrastructure there is a need for an integrated transport plan to be in place that would determine the most optimal manner in which the transport needs that would arise as a result of the development could be met. Presently there is attention on building the infrastructure such as roads, bridges and railways. However, with the opening up of the Ports at Kankesanthurai and Point Pedro as well as the Palallli airport there is need to determine the manner in which both goods and passenger transport should be organized within the province. This should take into account the need for long-distance travel as well as local travel. The potential for heavy economic activity in
Jaffna and Vavuniya is expected to give rise to the need for sound urban transport planning in these areas.

The area also holds potential for popularization of non motorized travel. Rural-urban linkages, school transport, goods transport, setting up of logistics centers and warehouses, multi modal centers are all aspects that need to be urgently studied.

**Eastern Province**

There are in the Eastern Province a total of 17 on-going and firmly committed national road projects estimated at Rs. 24.6 billion and a further 7 on-going and committed bridge and road projects estimated at Rs 6 billion which are expected to be completed in 2010. In addition to this, there are a number of road projects that have been proposed under the Negenahira Navodaya (NN) program which will provide a significant improvement to road based connectivity in the Eastern Province.

Since many of the towns in EP are more than 7 hours from Colombo or from the BIA at Katunayake, it is important to develop air travel to the EP. In this respect development of airports in and around urban centres as well as tourism spots would be advantageous. As such developing both Batticaloa and China Bay airports as well as Amparai would be strategic for transport sector development for EP.

**Western Province**

Western Province has seen an explosion of transport activity caused by the concentration of economic activities in the province. This too is considered a result of the deficiency of the national transport network which does not provide fast connections between the key economic generators such as the port and airport and other provinces.

One of the strategies that have been pursued has been to build expressways between Colombo and the provinces from Colombo. As such the Colombo-Katunayake Expressway would run north of the city, while the Southern Highway would run south and the Colombo-Kandy Highway would run due north-east with radial connections identified as the Outer Circular Highway and the Baseline Road as the Inner Circular Highway.

While expressways are expected to improve mobility between the city and the provinces, travel within the province is expected to further deteriorate with more transport activity passing through the province and entering Colombo where more congestion is expected. A possible solution would come from a north-south by pass link at the periphery of the WP so that traffic is kept away from the WP altogether without making such places too far for commuting from within the WP or have trading links within the province.

Potential has been identified for such a road to start from Alawwa and extend to Waskaduwa using existing roads developed to 2 or 4 lane standard via Mirigama, Kirindiwela, Meepe and Bandaragama. Such a road maybe called the Periphery Road for WP. This project if coupled with a land use integrated development wherein important traffic generators and employment generators are located at strategic locations could have a big impact on reducing the transport load within the province as
well as splitting the demand direction of traffic thus ensuring better utilisation of resources and greater profitability for transport services.

In a situation such as this, where building new roads or expressways within the city itself is impossible and widening of existing roads is also difficult, the only solution comes from improving public transport and making it attractive as a transport mode by choice. The current status of bus and railway is inadequate to provide this type of attraction to people when their incomes increase. As such a strategic Masterplan plan should be developed how the public passenger market share within the WP can be retained.

Traffic management and road safety becomes a vital aspect in CMR since it consists of a number of highly populated urban areas in the country. Especially the Colombo city is now becoming congested all throughout the day even in the late evening.

Uva Province

The constraints and issues for transport within UP are summarized as follows:

- Poor connectivity to port and airport as well as major trading centres
- Poor access to places of natural attraction for developing tourism
- Poor connectivity between agricultural centers and markets such as Dambulla
- Lack of connectivity to developed tourism locations such as in the southern coastal areas and cultural triangle or eastern beaches.
- Poor supply chain processes for most agricultural products of the province leading to major losses in transport and handling leading to poorer returns for farmers.
- Supply chain for tea has not improved over the years.

Transport in Urban Areas

The report in Chapter 8 discusses the problems of transport in urban areas. In this respect the following four urban areas have been studied:

- Colombo
- Avissawella
- Moratuwa
- Vavuniya

This chapter shows the many problems facing provision of acceptable transport services in Colombo City as well as in smaller urban centres. The lack of a professional approach is the foremost deficiency. Overall strategic transport or for that matter development plans are absent.
Studies done from time to time as in the case of Colombo and Avissawella have by and largely not been implemented expect for randomly selected projects which would have happened even without such a plan. As a result transport provision is inefficient and unsatisfactory. It is technologically backwards, unsafe and expensive in terms of losses that the user has to bear.

The lack of capacity and ability for even the Colombo Municipal Council to implement its own proposals and the parallel disinterest of national level organizations to develop municipal areas are the reasons for this situation. Smaller urban centres have mostly traffic management issues which make such cities crowded and unpleasant. Most urban local authorities have never had any investment in traffic and transport management either in terms of physical infrastructure or human resources development for on going management.

Selection of Projects

Chapter 9 provides a long list of over 150 projects that have been identified for completion in the different transport sectors. These have been identified under roads (9.1); railways (9.2); bus transport (9.3); aviation (9.4); multi modalism (9.5) and other modes of transport (9.6); vehicle administration & safety (9.7); provincial transport (9.8); transport in urban areas (9.9) and capacity development for improving transport sector (9.10).

Chapter 10 provides a short list of 20 projects that are considered for short listing based on their subscription to the issues raised in this report. Chapter 11 provides a project proposal for each of these projects with Chapter 12 concluding with the ranking of the selected projects.
1 TRANSPORT SECTOR IN SRI LANKA

This chapter provides a brief country profile of Sri Lanka followed by a description of the early development of the different modes of transport dealt within this assignment. The objectives of this chapter are (a) to provide the reader with the background information to the economic and social conditions of Sri Lanka and how transport activities have developed accordingly and (b) to obtain a reasonable forecast of the future demand for transport and its supply in the context of the changing economic status of the population.

1.1 Country Profile and Context

Sri Lanka has a population of 20 million that is growing at around 1.2 percent per annum. The land area is 65,610 sq km with a population density of 310 persons per sq km. During the last five decades its economy grew by an annual average rate of 4.4%, but this has been insufficient to elevate the country to a high growth path due to deep rooted deficiencies in growth promotion factors. In 2008, the nominal GDP of Sri Lanka was estimated to have reached about $40 billion and GDP per capita was Rs 218,161 (approximately USD 2,000).⁹

1.1.1 Geography

The island nation of Sri Lanka lies in the Indian Ocean just north of the equator and south of India. It is separated from Tamil Nadu State of India by the Palk Strait, which at its narrowest point is only 32 km wide. The country occupies a strategic position near the main sea lanes between Europe and Asia, a factor which allowed Colombo to develop very early as an international port city and then subsequently as a trans-shipment point for cargo originating or destined for the Indian sub-continent.

The maximum length of the island (from north to south) is 435 km while the maximum width (east to west) is 240 km. Sri Lanka has a coastline measuring about 1,600 km. Despite its small size, Sri Lanka has a great deal of geographic and climatic diversity within the island divided into wet, dry and intermediate climatic zones, diversity of agricultural produce, distribution of the forest species, rainfall, topography and soils. Sri Lanka has an abundance of scenic beaches that along with its historical sites have become a major tourist attraction over the last couple of decades. The capital Colombo, with its well developed seaport, is located on the western coast. Another major port is being developed in the southern city of Hambantota.

1.1.2 Employment & Population Profile

The labour force in 2006/7 was estimated at 8.0 million with a Labour Force Participation Rate of 51.7 percent and an unemployment rate of 7.2 percent. The employment is distributed among

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⁹ Annual Report, Central Bank of Sri Lanka, 2009
Review of Sri Lanka Transport Sector

agriculture (37.4%), industry (22.0%) and services (40.6%). Government employment is 1.2 million. Life Expectation at Birth is 69 years for males and 77 for females. The overall literacy rate is 92.5% with males at 94.5% and females at 90.6%. The Human Development Index is 0.76 ranking Sri Lanka as 102nd among 182 countries. The Human Poverty Index is 16.8% and ranked 67th among 135 countries. Poverty at an income less than US $1 per day is 6.6% of the population. The Gini coefficient of Household Incomes is 0.48.

1.1.3 Economy

The growth of the economy over the last decade at 1996 prices is given in Table 1.1. Despite the prolonged civil conflict in the country, the growth performance of the economy has been relatively good and is seen as evidence that the policy reforms associated with the restructuring and liberalization of the economy, which commenced in the 1990’s, are working. Nevertheless, the country has not lived up to its growth potential and economic performance still lags well behind East and Southeast Asia.

The Government now seeks to attain greater stability and has adopted higher GDP growth targets. Achievement of these targets will depend crucially on the application of more radical reforms, now that there has been a settlement of the long running conflict in the country’s northeast. The development of the economic infrastructure needed for faster growth is to be accelerated through continued policy, market, institutional and infrastructure reforms. Amidst agitation from some sectors of the public, social and physical infrastructure reforms that could create a sufficiently high level of human capital are also being implemented.

13 National Planning Department, Mahinda Chinthanaya- Ten Year Development Framework 2006-2016
14 Mahinda Chinthanaya, 2010
Table 1-1: Sri Lankan GDP (1996-2008)\textsuperscript{15}

<table>
<thead>
<tr>
<th>Year</th>
<th>at 1996 Factor Cost Prices</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>695,934</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>739,763</td>
<td>6.3</td>
</tr>
<tr>
<td>1998</td>
<td>774,796</td>
<td>4.7</td>
</tr>
<tr>
<td>1999</td>
<td>808,340</td>
<td>4.3</td>
</tr>
<tr>
<td>2000</td>
<td>857,035</td>
<td>6.0</td>
</tr>
<tr>
<td>2001</td>
<td>843,794</td>
<td>-1.5</td>
</tr>
<tr>
<td>2002</td>
<td>877,160</td>
<td>4.0</td>
</tr>
<tr>
<td>2003</td>
<td>930,057</td>
<td>6.0</td>
</tr>
<tr>
<td>2004</td>
<td>979,925</td>
<td>5.4</td>
</tr>
<tr>
<td>2005</td>
<td>1,048,502</td>
<td>7.0</td>
</tr>
<tr>
<td>2006</td>
<td>1,123,496</td>
<td>7.2</td>
</tr>
<tr>
<td>2007</td>
<td>1,205,489</td>
<td>7.3</td>
</tr>
<tr>
<td>2008</td>
<td>1,277,370</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Average Annual Growth Rate 5.2

\textit{Source: Annual Report, Central Bank 2009}

1.2 Early Development of Transport\textsuperscript{16}

Sri Lanka’s earliest known records of transport activity dates back to the 1\textsuperscript{st} century BC when a road network connected the then capital of Anuradhapura to the ports in the northeast, north and east of the country. These roads were dominant in the dry zone of the country, especially around the areas of rice production and connected places of worship and the seats of the different kingdoms up to the 10\textsuperscript{th} century. Roads opened up and closed with the rise and fall of various kingdoms. The roads in the coastal belt were added after the 11\textsuperscript{th} century with the migration of people to these areas. Roads to the up-country areas were only built after the arrival of the Europeans in the coastal area.

1.2.1 Inland Waterways

The arrival of the Dutch in the 18\textsuperscript{th} century saw the development of a canal network or waterways in the Western Province that extended from Kalutara to Puttalam along the coast with a total length of over 175 km. These were effective in navigating the large rivers, as well as the marshy areas in the Wet Zone, and were used by barges to access the coconut and spice plantation areas and connect them to the port in Colombo for export. It was the waterways that provided the catalyst to begin the growth of Colombo and its suburbs now known as the Western Province as the country’s economic and social hub, which has continued until today even though the waterway itself now lies unused being for the most part covered with water hyacinth and with many sections being non-navigable.

\textsuperscript{15} Central Bank of Sri Lanka, Annual Report, 2009

\textsuperscript{16} Amal S. Kumarage, Lecture Notes on History of Transport in Sri Lanka, University of Moratuwa,
The growth of import-export activities following the opening of the Suez Canal led to the Port of Colombo becoming a focal point for inland transport. With Colombo being increasingly used by successive colonial ruling powers as the administrative capital, it evolved as the most important hub for an inland transport network.

1.2.2 Railway Transport

In the year 1845, a company was formed to introduce steam locomotives to the country. This company was dissolved in 1861 and the Ceylon Government Railways known today as the Sri Lanka Government Railways (SLR) was formed instead. However, construction work on a broad gauge (5’ 6’’) had commenced in 1858 and on 27th December 1864, the first train operated from Colombo to Ambepussa, a distance of 34.5 miles.

The desire for more reliability and speed led to the completion of the line to Kandy from Colombo in 1867. The period up to 1894 saw the extension of lines up to Matale, Bandarawela, Kurunegala and Galle. By this time the railway had evolved as the primary means of passenger and goods travel and by the year 1924 it had further expanded to 1,520 km covering all the provincial capitals.

On the failure of the coffee plantation, tea was grown as a plantation crop from 1867 onwards. Tea plantations opened up in Nuwara Eliya and Badulla areas and by 1899, the railway had reached Bandarawela. The final length of the Main Line to Badulla was completed in 1924. Meanwhile, coconut and rubber, which were mostly low country products, were finding their place as export crops. The coastal line to Matara was completed in 1895. By the year 1928, the railway had reached Puttalam, Kankesanthurai, Badulla, Talaimannar, Batticaloa and Trincomalee. The narrow gauge Kelani Valley line had been completed by 1919. The duplication of the track up to Rambukkana took place around 1926 and on the coastal line up to Panadura in 1933. The full extent of the railway was in 1923 when it had 1540 km. Since then except for a few new links, and double tracking, line has been retracted and abandoned in several areas, reducing the line to 1,447 km currently with 172 stations and 161 sub-stations. It has around 140 locomotives and power sets in active service with around 550 passenger carriages and 900 freight wagons in operating condition.

The railway requires engaging in the passenger and freight market it lost to road transport over the last several decades. With road based congestion imposing restrictions, railway requires more market oriented approaches as well as a strategy to develop its markets including access to ports and airports as well as multi modal logistics centers and multi modal passenger terminals inclusive of park and ride facilities in order to compete with improved road transport including the challenges that will be posed by the new expressway system.

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1.2.3 Road Network

The construction of most sections of the present day road network dates to the period immediately following the subjugation by the British of the entire country and the subsequent Kandyan Convention in 1815. Initially, roads were constructed mostly for political and military consideration. The first of these was the road from Colombo to Kandy begun in 1821. Because of the monsoonal rains and the need for permanent roads, it is said that the construction of roads preceded motor vehicles.

However, with the promotion of coffee cultivation after 1830, road building was considered a priority for reasons of economy and trade. By 1867, 71 roads totaling 3,750 km were reported completed. The shift to tea production from 1880 further expanded this to 6,024 km by the year 1905. Most of these roads were built in areas of economic advantage to export trade and as such, the Central, Sabaragamuwa and Uva provinces were the beneficiaries, albeit at the expense of the negligence of indigenous agriculture.

But even by the year 1902 when the first passenger car was imported to the country, the road system was virtually non-existent, except for a system of main roads connecting principal cities. With the arrival of the motor bus/lorry in 1907, the British ventured at developing the road network as means of transporting goods. Colombo was the principal port and the hub of the national road system.

Since independence, a noteworthy shift in road building was seen with emphasis on access roads, particularly to rural villages. This has today, increased to an estimated 80,000 km. On the other hand, additions to the national road network have been comparatively less significant, with the majority being upgrades from provincial roads. The most notable contribution of new roads is from agricultural and irrigation projects, especially the 467 km added under the Mahaweli Diversion Program.

The road network in Sri Lanka is made up of several types of roads classified according to their functionality and management. As there is no formal classification system for Sri Lankan roads the following classification will be followed in this report:

- National Roads
- Provincial Roads
- Urban Roads
- Rural Roads

This classification is based on the different tiers of government in Sri Lanka i.e; national, provincial and local. The local governments are further identified as urban and rural local authorities. While the National Roads are managed by the Central Government through the Road Development Authority, the provincial road network is managed by the respective Provincial Councils (PC).
Table 1-2: Development of Road Network

<table>
<thead>
<tr>
<th>Year</th>
<th>RDA</th>
<th>Provincial</th>
<th>Access Urban</th>
<th>Access Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Cent. BC</td>
<td>Road Network based on connectivity of Anuradhapura to ports in the North and East and connection between the different kingdoms and places of worship mostly in the dry zone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11th Century</td>
<td>Coastal roads in the southwest after migration of people</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1815</td>
<td>Commencement of Road Building by British</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1905</td>
<td>6,024</td>
<td></td>
<td></td>
<td>6,024</td>
<td></td>
</tr>
<tr>
<td>1959</td>
<td>7,034</td>
<td>12,070</td>
<td></td>
<td>19,104</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>10,447</td>
<td>14,916</td>
<td>2,791</td>
<td>66,054</td>
<td>94,208</td>
</tr>
<tr>
<td>2002</td>
<td>11,760</td>
<td>15,743</td>
<td>5,200</td>
<td>77,800</td>
<td>110,503</td>
</tr>
<tr>
<td>2009</td>
<td>11,919</td>
<td>16,000</td>
<td>5,300</td>
<td>80,000</td>
<td>113,219</td>
</tr>
</tbody>
</table>

Roads in urban areas have not been modernized or developed to overcome issues of traffic congestion or increasing accidents.

1.2.4 Motor Vehicles

Motor transport by road commenced in 1903. By end of 2007, the total number of vehicles that had been registered exceeded 3.6 million of which approximately 2.2 million vehicles can be estimated to be in actual operation in the country as shown in Table 1.3. Of these around one half are two wheelers, while three wheelers and other low horse powered vehicles such as three wheelers constitute another one-quarter and only around one-quarter of the fleet is four or six wheeler vehicles. Buses used for public transport make up around 24,000 representing 1% of the fleet, while all forms of goods vehicles including land vehicles make up around 300,000 vehicles.

Table 1-3: Composition of road transport vehicles operating-2007

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>No. of Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omnibuses</td>
<td>15,819</td>
</tr>
<tr>
<td>Private Coaches</td>
<td>25,107</td>
</tr>
<tr>
<td>Dual Purpose Vehicles</td>
<td>180,923</td>
</tr>
<tr>
<td>Private Cars</td>
<td>252,027</td>
</tr>
<tr>
<td>Land Vehicles</td>
<td>92,028</td>
</tr>
<tr>
<td>Goods Transport Vehicles</td>
<td>182,045</td>
</tr>
<tr>
<td>Motor Cycles</td>
<td>1,126,831</td>
</tr>
<tr>
<td>Three wheelers</td>
<td>342,286</td>
</tr>
<tr>
<td>Others</td>
<td>5,737</td>
</tr>
</tbody>
</table>

18 National Roads, Based on RDA Planning Division Database, others based on assumed growth rates

19 Central Bank, Annual Report 2009
The growth rate of the vehicular traffic is poised to increase further with an observed shift of around 1-2% of passengers from public modes to private modes every year. As per capita incomes are expected to increase over USD 4000, most families would be able to afford a private vehicle. Currently, vehicle ownership is over 100 vehicles per 1000 persons. Of this, around 2/3rd of the fleet is made up of two and three wheelers as well as goods vehicles including vans which are categorized as dual purpose- all of which are taxed at modest import duties when compared to the 300 to 400 percent combined duties that were levied on importation of passenger cars which only make up around 10 percent of the fleet.

This situation has recently been changed with the Government announcing the reduction of duties by half on passenger cars and utility vehicles. With this concession vehicle ownership is likely to increase in the short term and thereafter keep pace with economic growth. It is possible that Sri Lanka will observe a slowdown in registration of two and three wheelers with more four wheeled vehicles being imported due to income increases, availability of low cost cars and the reduction of import duties. The deterioration of public transport will hasten this process.

1.2.5 Bus Transport

Bus transport began in 1907 with private sector initiatives. After the government failed to regulate these services effectively, they were nationalized in 1958 with the creation of the Ceylon Transport Board. This was later decentralized and restructured beginning 1978. Private sector operators were reintroduced from 1979. Presently there are 18,480 permits issued for private buses and a fleet of over 5,000 State owned buses of the Sri Lanka Transport Board (SLTB). Most of the private buses are individually owned and operated. There are over 5,000 bus routes scattered island-wide and buses serve almost all rural and remote areas from any part of the country. Most long-distance routes and main commuter routes supply around the clock services with rural and urban feeder routes providing 14 to 16 hour services. There are subsidized services provided for school children as well as to remote rural areas and at night in suburban areas.

Buses at present carry over 50 billion passenger km annually making 61 percent of the market, with the SLTB carrying round 1/3rd share. However the overall bus market share is rapidly decreasing due to the continuing increase in ownership of two and three wheelers and the slow progress in modernizing public transport.

The bus industry in Sri Lanka has undergone several metamorphic changes in ownership and management over the last 100 years which can be categorized into ownership and operations as follows:

- Exclusively Private Sector: 1907 to 1957 (50 years)
- Exclusively Public Sector: 1958 to 1978 (20 years)
- Private & Public Sector: 1978 to date (32 years)
Figure 1-1: Market Share between State (SLTB) Operator vs Private Bus Operators (1980-2007)

Figure 1-1 shows the gradual decline of the market share of the State Operator over the last three decades. The increasing competitiveness and the inability of the SLTB to provide good management leadership has led to the gradual decline of its market share by around 1 to 2 percent per year. Within each of these periods, a number of significant structural changes in management have taken place.

The reasons for these changes and the lessons that may be learned from them are summarized as follows

Figure 1-2: Chronology of Bus Transport in Sri Lanka

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1907</td>
<td>First recorded omnibus operation by TW Colette from Colombo to Chilaw.</td>
</tr>
<tr>
<td>1916</td>
<td>Vehicle and driver licensing introduced through Vehicle Ordinance Act No. 4 of 1916.</td>
</tr>
<tr>
<td>1927</td>
<td>Creation of the Department of Motor Vehicles through Ordinance No 20 of 1927.</td>
</tr>
<tr>
<td>1937</td>
<td>Hammond Commission appointed to investigate complaints of thuggery and cut-throat competition.</td>
</tr>
<tr>
<td>1938</td>
<td>Appointment of the Commissioner of Motor Transport through Motor Car Ordinance No. 45 of 1938.</td>
</tr>
<tr>
<td>1940</td>
<td>CMT fixed minimum fares on all routes and made it an offence to charge below this fare. Introduction of the Omnibus Service Licensing Ordinance No. 47 of 1942, following the report of Mr. Nelson who was appointed to examine the re-organization of the bus services, which were suffering from intense rivalry among operators, poor productivity, and unsatisfactory passenger services. This resulted in the formation of limited liability companies, issue of Road Service Licenses, and standardization of buses.</td>
</tr>
<tr>
<td>1951</td>
<td>Introduction of the Motor Traffic Act No. 14 of 1951, after the review by Mr. Rutnam on methods to improve co-ordination and eliminate wasteful competition. The legislation provided for private bus companies to form public limited liability companies.</td>
</tr>
<tr>
<td>1954</td>
<td>The Sansoni Commission was appointed to report on the fare structure and on means of introducing a public transport service. It recommended amendments to the Motor Traffic Act and the formation of a joint private-public sector Transport Board.</td>
</tr>
<tr>
<td>1956</td>
<td>A new government came to power pledging nationalization of the bus industry. It appointed three committees to produce plans for nationalization of the 2,500 buses that were then operated by around 80 companies on a territorial basis.</td>
</tr>
</tbody>
</table>
1958 The Ceylon Transport Board (CTB) commenced operations island-wide having been set up under Act 48 of 1957 using buses taken over from the private companies. The CTB enjoyed monopoly status for 20 years.

1968 The CTB expanded its route network, provided worker welfare, increased fleet productivity, and in some years was able to procure new buses from revenue surpluses.

1978 The CTB was decentralized by Act No. 19 of 1978 to nine Regional Transport Boards (RTBs) and the Sri Lanka Central Transport Board (SLCTB). This was due to increasing political intervention in non-policy matters, a lack of financial reimbursement for low fares set by successive governments, and an inability to procure sufficient new buses resulting in poor performance, over-loading and numerous trade union related problems.

1979 The government allowed private bus transport on selected routes. By 1980, there were around 5,000 private buses in operation. They were allowed to operate on the routes of their choice, which were invariably the profitable ones, and came into conflict with the cash strapped RTB operations, which were unable to cope.

1984 Creation of the Ministry of Private Omnibus Transport through the Private Omnibus Services Act No. 44 of 1983, and issue of route permits, following the Ameer Committee Report.

1985 Private Omnibus Operators Associations were created in all 25 districts in 1985. They collected membership and stand fees from private bus operators, all of whom were required to be members of an association.

1989 The Private Omnibus Operators Associations were dissolved following evidence of large scale corruption involving the ‘sale’ of lucrative routes and time slots and the inability of the Ministry and the Department of Private Omnibus Transport to adequately supervise these associations.

1990 Conversion of the RTB’s to Peoplised Transport Companies (PTS) under Act No. 23 of 1987. In an effort to make State bus operations more viable, employees were given 50% of the shares with the balance held by Treasury. This was carried out under a World Bank/IMF Structural Adjustment Loan to Sri Lanka, with which public sector companies were ‘restructured’, partly through early retirement schemes to retrench excessive staff. This also led to the winding up of SLCTB, although in practice it continued as a monitoring and co-ordinating body directly under the MoTH.

1991 The National Transport Commission Act No. 37 of 1991 repealed the Private Omnibus Services Act and set up the NTC to regulate inter-provincial bus transport and to advise the government on policy matters. The Private Omnibus Associations were also made defunct. Following Constitutional changes through the 13th Amendment, intra-provincial transport became a subject for the provincial governments (as determined through a judgment of the Supreme Court), and provincial transport authorities were created in most provinces to regulate intra-provincial bus operations.

1998 In an attempt to make the PTSs financially viable, they were clustered into Regional Transport Companies (RTCs) under NTC Act No. 30 of 1996. Eleven Companies was formed under the Companies Act No. 17 of 1982. The position of the SLCTB has been re-strengthened again, although its legal status is not quite certain.

2004 Above legislation repealed and steps taken to plan for formation of management companies. Cabinet approval.

2005 Cabinet Approval for Tendering of Inter-provincial routes. Integrated Timetabling Commencement of Sisu Sariya, Gami Sariya and Nisi Sariya concessionary subsidy schemes extended to both State and private operators.

2008 Cabinet approval for long-distance integrated time tables including both State and private operators.

2009 City Liner Premium Bus Service and Park and Ride concept launched. Under Cabinet decision NTC handed over management of Bastian Mawatha bus terminal as central long distance bus terminal for private buses.

1.2.6 Air transport

Of the older airports built and used during World War II, Ratmalana and then Katunayake were used for international flights. Currently, only the Katunayake airport is used for international flights. This was built in 1958 named the Bandaranaike International Airport (BIA) and is located at Katunayake, a distance of 32 km north of Colombo. Due to the security situation that prevailed in recent times, there were restrictions in most of the 13 domestic airports limiting them only for military use. Katunayake has a runway that is 3,350 metres in length and handled around 35,000 flights in 2008. The annual passenger throughput was around 4.6 million, while the cargo tonnage handled was over 150,000
metric tonnes. There are presently over 30 different air carriers, including 8 cargo carriers that use the airport, providing flights to around 45 destinations.

### 1.3 Transport Map

A map showing the location of major transport infrastructure within Sri Lanka is shown in Figure 1.3.

### 1.4 Transport Modal Shares

Sri Lanka has an operational fleet of 2.2 million vehicles which make up around 20 billion vehicle km annually. Based on estimates computed by the University of Moratuwa, the transport activity since independence has been increasing at 5 percent per annum, with a per capita increase of around 4 percent per annum. The road transport now accounts for 93 percent of passenger travel and 98 percent of freight transport. Buses carry 61 percent of the passengers, while para-transit in the form of three wheelers and taxis makes up another 6 percent. Transport activity is most dominant within the Colombo City and its environs with an estimated 220,000 vehicles entering the city daily carrying over 1 million passengers. In 2005 68% of this arrived by bus, whereas the railway carried another 5% with only 26% using all the other modes of private transport. The summary of the transport modal shares for 2007 is given in Table 1-4.

<table>
<thead>
<tr>
<th></th>
<th>Vehicle km (mn.)</th>
<th>%</th>
<th>Passenger km (mn.)</th>
<th>%</th>
<th>Ton km (mn.)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>1,326</td>
<td>6.9</td>
<td>46,396</td>
<td>61.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railways</td>
<td>8</td>
<td>0.0</td>
<td>4,767</td>
<td>6.3</td>
<td>134.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Private Vehicles</td>
<td>11,972</td>
<td>62.6</td>
<td>18,536</td>
<td>24.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para-Transit</td>
<td>2,123</td>
<td>11.1</td>
<td>4,492</td>
<td>6.3</td>
<td>6,436</td>
<td>97.5</td>
</tr>
<tr>
<td>Goods/Land Vehicles</td>
<td>3,678</td>
<td>19.2</td>
<td>1,839</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Transport</td>
<td>3</td>
<td>0.0</td>
<td></td>
<td></td>
<td>32</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td><strong>19,109</strong></td>
<td><strong>100.0</strong></td>
<td><strong>76,031</strong></td>
<td><strong>100.0</strong></td>
<td><strong>6,603</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

At present there is an estimated demand for around 80 billion passenger km annually by all modes of motorized transport. This has been growing at around 5% per annum, while vehicle km has grown at a higher rate of 7 to 8 per cent per annum, with goods movements increasing by around 3 to 4 percent per annum.

This represents an average per capita mobility of 4,000 passenger km per annum and a vehicle use of 1,000 km per annum. According to international norms, this is around 3 times the mobility observed

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20 Civil Aviation Authority, Annual Report 2009

for other countries having a per capita income of USD 2000\textsuperscript{22}. This high level of mobility has been observed for several decades starting with the provision of island wide bus services by the state operated Ceylon Transport Board (CTB) in the 1960s.

\textbf{Figure 1-3: Transport Map of Sri Lanka}

\textsuperscript{22} Shaefer, Andreas, \textit{Long-Term Trends in Global Passenger Mobility}, UK, 2008
Apart from the railway and the SLTB which together carry around 22% of the passenger market in Sri Lanka, the balance transport needs are satisfied by the private sector. Chief among these is the private bus industry which meets around 45% of the total demand, while three wheelers, taxis and other forms of para-transit which are exclusively private sector owned contribute around 6%. The others are made on private modes of transport. In the goods transport and logistics, the government’s contribution is mostly in the railway which carries 2% of all goods movements. In addition, several Government institutions, such as the Food Department, Ceylon Petroleum Corporation, Department of Agrarian services which are government agencies have large fleets of trucks. However it can be safely asserted that over 90% of the total goods carriage within Sri Lanka is handled by the private sector. In this instance also, there are very few large scale truckers. Most owners have just a few trucks and there are just a very few companies who own over 100 trucks.

### 1.5 Summary of Income & Expenditure in Transport

#### 1.5.1 Agencies under Ministry of Transport

The financial performance of the agencies under the Ministry of Transport disaggregated in terms of Capital/Recurrent expenditure is given in Table 1-5.

<table>
<thead>
<tr>
<th>Institute</th>
<th>Actual Allocation</th>
<th>Estimated Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
<td>2005</td>
</tr>
<tr>
<td>RMV</td>
<td>Recurrent</td>
<td>408.3</td>
</tr>
<tr>
<td></td>
<td>Capital</td>
<td>69.1</td>
</tr>
<tr>
<td>SLTB</td>
<td>Recurrent</td>
<td>3065.6</td>
</tr>
<tr>
<td></td>
<td>Capital</td>
<td>3008.6</td>
</tr>
<tr>
<td>SLR</td>
<td>Recurrent</td>
<td>2553.0</td>
</tr>
<tr>
<td></td>
<td>Capital</td>
<td>1383.0</td>
</tr>
<tr>
<td>NTC</td>
<td>Recurrent</td>
<td>13.1</td>
</tr>
<tr>
<td></td>
<td>Capital</td>
<td>12.5</td>
</tr>
</tbody>
</table>

The summary of income and expenditure for the different Government agencies are given in Table 1-6.

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23 *National Budget Department*

24 *Allocation/Expenditure shown in 2004 are for Sri Lanka Railway Authority*
Table 1-6: Summary of Income and Expenditure by Agency (2004-2009)

<table>
<thead>
<tr>
<th>Institute</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDA</td>
<td>Revenue</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>26,047</td>
<td>45,870</td>
<td>47,681</td>
<td>52,018</td>
</tr>
<tr>
<td>RMV(^{25})</td>
<td>Revenue</td>
<td>1,218.9</td>
<td>2,338.8</td>
<td>1,890.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>527.7</td>
<td>618.2</td>
<td>875.4(^{26})</td>
<td></td>
</tr>
<tr>
<td>SLR</td>
<td>Revenue</td>
<td>1678</td>
<td>1957.4</td>
<td>2491</td>
<td>2999</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>6657.4</td>
<td>8423</td>
<td>10042.6</td>
<td>13252</td>
</tr>
<tr>
<td>NTC</td>
<td>Revenue</td>
<td>25.6</td>
<td>141.6</td>
<td>190.9</td>
<td>269.1</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLTB</td>
<td>Revenue</td>
<td>8,999.2</td>
<td>10,007.3</td>
<td>12,668.3</td>
<td>15,441.1</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>10,128.7</td>
<td>11,533.5</td>
<td>13,650.3</td>
<td>15,806.9</td>
</tr>
<tr>
<td>NTMI(^{27})</td>
<td>Revenue</td>
<td>97.5</td>
<td>130.3</td>
<td>155.7</td>
<td></td>
</tr>
<tr>
<td>CAA</td>
<td>Income</td>
<td>132.9</td>
<td>159.9</td>
<td>155.9</td>
<td>120.6</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>67.0</td>
<td>88.6</td>
<td>105.8</td>
<td>117.9</td>
</tr>
<tr>
<td>AASL</td>
<td>Revenue</td>
<td>2,402</td>
<td>2,619</td>
<td>4,454</td>
<td>5,340</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>1,846</td>
<td>1,949</td>
<td>2,434</td>
<td>2,871</td>
</tr>
<tr>
<td>Sri Lankan Airline</td>
<td>Revenue</td>
<td>45,397.5</td>
<td>53,808.8</td>
<td>61,160.1</td>
<td>67,963.8</td>
</tr>
<tr>
<td>Limited</td>
<td>Expenditure</td>
<td>39,441.8</td>
<td>54,145.2</td>
<td>60,720.3</td>
<td>69,406.7</td>
</tr>
<tr>
<td>All PRDAs(^{28})</td>
<td>Revenue</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>1615.6</td>
<td>2438.9</td>
<td>2706.0</td>
<td>2150.7</td>
</tr>
<tr>
<td>All RPTAs(^{29})</td>
<td>Revenue</td>
<td>15.4</td>
<td>35.3</td>
<td>64.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>57</td>
<td>93</td>
<td>133</td>
<td></td>
</tr>
<tr>
<td>All provincial CMT(^{30})</td>
<td>Revenue</td>
<td>2256.0</td>
<td>2587.8</td>
<td>1684.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

\(^{25}\) Estimated from expenditure for first 9 months  
\(^{26}\) Estimated from expenditure for first 9 months  
\(^{27}\) Ibid  
\(^{28}\) Estimated by using the data collected from NP, EP, WP, Uva and NCP  
\(^{29}\) RPTAs Revenue taken as the Fees collected through private Omni-bus act as per the Financial Review of M/LG & PC and Expenditures as per the 2007 National Budget  
\(^{30}\) CMTs Revenue taken as the Vehicle license fee and fee collected under motor traffic act by PC- Financial Review of M/LG & PC
1.5.2 Private Transport Providers

In addition to the cost incurred by these agencies, private investments costs should also be considered. In this respect there is no record of investments and the following estimate for commercial transport services provided by the private sector is based on secondary information.

- **Railways**: No significant investment by private sector.

- **Bus Transport**: Investment in buses, repair facilities etc. There is no record of this, but it can be assumed that around 1,500 to 2,000 buses are replaced in the industry annually. The fleet growth has slowed down over the last several years due to earlier excess capacity and loss of modal share to private modes. The investment value could be estimated at between Rs 4,000 million to Rs 6,000 million per annum during the last five years. The revenue from private bus operations could also be estimated at Rs 51,035 million for year 2007 based on an estimated annual km operated at 1,021 mn km.

- **Trucking**: An estimated 15,000 new goods vehicles are registered annually. The investment value of this which is almost entirely made by the private sector may be estimated at around Rs 15,000 mn while the operational cost/revenue estimate could be made at Rs 146,750 mn for year 2007 for an estimated 3,669 million goods vehicle km operated that year.

- **Three Wheelers**: The average annual investment could be estimated at around Rs 500 mn to Rs 700 mn for around 15,000 to 25,000 new vehicles. The revenue for hires made during the year 2007 is estimated for an annual 1,711 mn vehicle km which translates to approximately Rs 25.7 million.

1.6 Demand for Transport

Overall the growth in passenger travel has kept pace with per capita incomes. For example, the fifty year growth rate of passenger km and per capita incomes have been about the same. In a country which has a positive population growth, it could then be concluded that the passenger demand growth will be marginally higher than the growth in GDP.
This represents an average per capita mobility of over 4,000 passenger km per annum and a vehicle use of 1,000 km per annum. According to international norms, this is around 3 times the personal mobility observed for other countries having a per capita income of USD 2000$^{31}$, This high level of mobility has been observed for several decades starting with the rapid expansion of island wide bus services by the nationalized Ceylon Transport Board (CTB) in the 1960s where mobility rates increased by 7 to 8 percent per annum even though there was no corresponding increase in per capita incomes.

\[\text{Figure 1-4: Growth of Passenger Traffic in Sri Lanka 1958-2007}\]

\[\text{Comparison of Total Passenger kms Vs. Per Capita Income (1958-2007)}\]

\[\text{Shaefer, Andreas, Long-Term Trends in Global Passenger Mobility, UK, 2008}\]
1.7 Issues in Coping with Growth in Transport Demand for Next Decade

With the anticipated 6 to 8 percent growth in GDP, it is expected that the demand for passenger mobility will also increase at around 7 to 9 percent. Based on historical trends, for such a growth rate the demand for passenger mobility is expected to double between 8 to 10 years. If in addition to this, the current rate of shift from public to private transport continues at 1-2%, then this period will be reduced to 7 years. If public transport deteriorates further or if taxes on vehicles and fuel are reduced further this could reduce a further 1-2%, then the time for doubling road space would reduce to 6 years.

While this will put enormous pressure on the transport infrastructure especially the road network, especially in urban and suburban areas where the growth in economic activity will concentrate. Since it will not be possible to double the road capacity in these areas in such a short span of time, option al strategies would be to open up new urban areas or to rapidly improve quality of public transport.

Figure 1-5: Global Passenger Mobility and per capita Incomes
1.8 Strategies to Cope with Demand

This will require a strategic approach that should essentially look at three complementary approaches:

- Reducing demand for road space – by improving public transport.
- Increasing supply – by redesigning existing road space and new roads.
- Diverting demand to new areas – by starting new growth poles to attract economic growth.

In the first instance urban areas should target a reversal of public transport modal shift and look at a growth rate of around 1% p.a. in the market share, which is quite attainable over the next decade. This must be by providing quality public transport at the higher income levels where current private vehicle users and potential users are provided with choices that make public transport more appealing. This would mean quality vehicles, high end services, multi modal terminals, auxiliary facilities such as park and ride, better terminals and stations, modernization of facilities and technology, electronic ticketing and seamless travel.

Increasing capacity of the road system would require improved traffic management, improved control of intersections in urban areas, provision of priority for high occupancy vehicles. It is expected that 25 to 35 percent of capacity can be recovered by such relatively low cost measures.

In the third strategy, new urban growth poles such as Hambantota should be promoted to attract new commercial and industrial activities as well as to divert existing activities by attracting them with better infrastructure and services. The transport network for such development endeavours should also be given priority.

1.9 Public Investment Plan for Transport Sector

The Public Investment Plan for the period 2010-2015 indicates that the transport sector inclusive of aviation and maritime sectors will receive an investment of Rs 160 bn for 2010 representing around 2.9% of the GDP as Government Capital Investment and a further Rs 27 billion as private capital investment, with most of it for land transport sector. This is to increase to Rs 263 bn as Government investment and Rs 119 bn from private sources, for land transport, ports and airport, making up to 3.6% of GDP.

The total investment for the six year period is Rs 1.9 trillion with over 50% expected from foreign sources almost all of which other than for ports is expected as government investments.

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32 Ministry of Finance, National Budget Division, 2010
domestic private investment is around Rs 360 bn from private sources of which Rs 260 bn is for land transport. As this should correspond mainly to motor vehicles, this should represent at least one million more motor vehicles on our roads, whereby the current fleet may be expected to increase to around 3 million operating units.
### Table 1-7: Public Investment Plan for Transport Sector (2010-2015)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>TOTAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign</td>
<td>58,900</td>
<td>38,200</td>
<td>41,000</td>
<td>45,000</td>
<td>47,000</td>
<td>49,000</td>
<td>280,000</td>
<td>37%</td>
</tr>
<tr>
<td>Domestic</td>
<td>8,050</td>
<td>1,500</td>
<td>2,000</td>
<td>2,000</td>
<td>2,300</td>
<td>2,500</td>
<td>74,800</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>1.8%</td>
<td>0.02%</td>
<td>0.7%</td>
<td>0.03%</td>
<td>1.5%</td>
<td>1.3%</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Foreign</td>
<td>25,100</td>
<td>2,000</td>
<td>13,000</td>
<td>23,000</td>
<td>23,000</td>
<td>19,500</td>
<td>63%</td>
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</tr>
<tr>
<td>Domestic</td>
<td>2,300</td>
<td>6,000</td>
<td>12,000</td>
<td>13,000</td>
<td>14,000</td>
<td>18,000</td>
<td>120,000</td>
<td>120,000</td>
</tr>
<tr>
<td></td>
<td>0.5%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Foreign</td>
<td>7,300</td>
<td>8,500</td>
<td>10,500</td>
<td>11,500</td>
<td>12,500</td>
<td>59,800</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Domestic</td>
<td>800</td>
<td>4,000</td>
<td>6,000</td>
<td>8,000</td>
<td>10,000</td>
<td>15,000</td>
<td>42,570</td>
<td>42,570</td>
</tr>
<tr>
<td></td>
<td>0.1%</td>
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<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
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</tr>
<tr>
<td>Foreign</td>
<td>23,021</td>
<td>28,000</td>
<td>40,000</td>
<td>68,000</td>
<td>64,000</td>
<td>283,021</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Domestic</td>
<td>12,494</td>
<td>30,000</td>
<td>37,000</td>
<td>45,000</td>
<td>52,500</td>
<td>249,200</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Foreign</td>
<td>114,321</td>
<td>136,300</td>
<td>183,500</td>
<td>182,500</td>
<td>181,000</td>
<td>1,031,221</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Domestic</td>
<td>63,394</td>
<td>39,800</td>
<td>93,000</td>
<td>96,000</td>
<td>95,000</td>
<td>849,264</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2.9%</td>
<td>0.7%</td>
<td>3.2%</td>
<td>3.2%</td>
<td>3.2%</td>
<td>2.9%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>GDP</td>
<td>6,081,559</td>
<td>6,081,559</td>
<td>8,660,272</td>
<td>9,712,828</td>
<td>10,878,368</td>
<td>1,880,485</td>
<td>76%</td>
<td>76%</td>
</tr>
</tbody>
</table>

33 Ministry of Finance, National Budget Department, 2010
**Figure 1-6: Analysis of Investment in each Sector**

- **% of Foreign Investment**
  - Roads: 62.6%
  - Ports: 65.6%
  - Aviation: 43.1%
  - Transport: 42.7%

- **% of Domestic Investment**
  - Roads: 56.9%
  - Ports: 34.4%
  - Aviation: 57.3%
  - Transport: 37.4%

*Source: Ministry of Finance, National Budget Department, 2010*
Review of Sri Lanka Transport Sector

Chapter: Transport Sector in Sri Lanka

Government Investment by Sector %

- Roads: 51%
- Ports: 13%
- Aviation: 7%
- Transport: 28%

Private Investment by Sector %

- Roads: 51%
- Ports: 13%
- Aviation: 7%
- Transport: 28%

Figure 1-7: Analysis of Investment by Sector

Source: Ministry of Finance, National Budget Department, 2010

35 Source: Ministry of Finance, National Budget Department, 2010
1.10 Transport Sector Inefficiencies

The current land transport and its logistics system cannot be termed as being efficient. Public sector expenditure in land transport is in the order of Rs 120 billion per annum, while private investments in terms of purchase of road transport vehicles and their operational costs are estimated to be approximately five fold, at a staggering Rs 600 billion per year of which over Rs 200 mn is for commercially provided transport services namely buses, trucks and para-transit services and the balance for private modes of motorized transport.

However, the inefficiencies of the land transport system are many. Traffic congestion costs in the Western Province alone in 2006 were estimated at Rs 32 billion, while accident costs are estimated at around Rs 20 billion per annum\(^{36}\). The cost of avoidable delays, breakdown, waiting time in public transport are estimated to cost at least another Rs 30 billion to users, while losses in productivity due to issues of poor reliability, flooding, damages of goods in transit and other logistics related costs of the transport network may be estimated at another Rs 40 million at least. The combined losses would thus amount to over Rs 120 billion per annum, the equivalent of the annual public investment allocation for roads in 2010. This cost translates to \(\frac{1}{6}\) of the total expenditure on the land transport sector by both government and private sectors. Thus the inefficiency may be termed at \(\frac{1}{6}\) which is considerably high.

The losses amounting from sub optimal investments and lost economic productivity, poor design and construction supervision, drainage damage and other losses cannot be accurately estimated, but is likely to be greater than this. These together almost always results in transport in all its forms and variations- be it public or private, passenger or freight, road or rail, urban or rural to be often among the most complained of public services deemed as being unsatisfactory by both private and corporate citizens.

2 STATUS QUO OF TRANSPORT IN SRI LANKA

This chapter deals with the existing situation in the transport sector. In this respect the sector will be examined in terms of the performance of each of the modes of transport, their modal shares, infrastructure and rolling stock, ownership and operational structures. This chapter will also identify the problems and issues in each mode of transport and assess the bottlenecks and constraints that exist at present. It will identify the roles played by the government and the private sector in the provision of infrastructure and services.

Each section will also include an assessment of the particular mode of transport and a summary of the lessons learned from past interventions and investments made. Sections will also compare historical investments and utilizations thereof as well as staffing levels.

2.1 Highways

The present road network comprises about 11,671 km of national highways that are categorized as Class A and B roads administered by the Road Development Authority, the highest categories in Sri Lanka's road hierarchy; 15,500 km of provincial roads managed by the respective Provincial administrations, classified as Classes C, D, and E; 65,000 km of local authority roads; and 24,000 km of roads owned or controlled by irrigation, wildlife, and other authorities totaling over 116,000 km of road in the country, which returns a road density of over 1.7 km per sq km.

Moreover, Sri Lanka does not have modern highways that are engineered as expressways. Hence, the Government of Sri Lanka has decided to implement a policy to develop a network of new Expressways/Limited Access Roads to supplement the existing road capacity which have been identified as follows.

- Outer Circular Highway (in design stage)
- Colombo-Kandy Alternate Highway (in design stage)
- Colombo-Katunayake Expressway (in construction stage)
- Southern Expressway (in construction stage)
- Extension of Southern Expressway (in planning stage)
- Northern Expressway (in feasibility study stage)

2.1.1 Regulation, Ownership and Management

Roads were earlier managed by a government department- the Public Works Department or PWD. After forming into a Highways Department, it was made further autonomous as statutory agencies under the central and provincial governments.
• **National Highways:** These are roads that are presently managed by the Road Development Authority (RDA) and constitute the roads classified as A & B Class. Such roads are considered as part of the national road network or provide access to places of national importance etc. Roads that belong to the provincial authorities as well as agencies such as the Mahaweli Authority, Municipal Councils are periodically gazetted and added to the national network. These roads are maintained by the RDA, with the exception of around 80 km within Colombo city which is maintained by the Colombo Municipal Council.

• **Provincial Roads:** These are roads that were classified as C, D and E class when the Provincial Councils were established in 1989 under the 13th amendment to the Constitution. Usually, these are roads on which a bus service operates and where such road is situated entirely within the province. There has been no physical verification carried out to determine the exact length of provincial roads. Its extent was estimated at 14,016 km in 2009 with 73% of the length being paved roads. These roads are managed by the respective Provincial Councils which have a statutory body commonly referred to as the Provincial Road Development Authority (PRDA) or a Roads Department through which it manages the road network.

• **Urban Roads:** Roads that are not classified as national roads or provincial rods but are within Municipal or Urban Council areas (MCs and UCs respectively) are identified in this report as urban roads. These roads are maintained by local governments- i.e. MCs or UCs. Some urban roads such as in Colombo and Kandy are used by heavy traffic and in a functional sense is part of the national highway network. The Dehiwala-Mt Lavinia MC has 594 km of roads, while Colombo MC has 480 km of road. Other municipal councils have road lengths that are between 30 km to 200 km, while the urban councils have 10 to 50 km in each case. There are 18 Municipal Councils and 48 Urban Councils managing between them 5,176 km of road. Around 1/4th of this road length may be considered as gravel or earth roads. Only a length of around 80 km in Colombo and 8 km in Galle are two lane or wider, other being single lane residential roads.

• **Rural Roads:** These are roads in rural areas maintained by rural local authorities called Pradeshiya Sabhas (Village Councils earlier). The length of these roads was estimated in 2002 as 75,424 km. Unlike the other roads described earlier, most of these roads are earth or gravel roads.

• **Roads maintained by other Institutions:** There are yet other roads which do not belong to or are maintained by any of the agencies specifically charged with road maintenance. These agencies include the Mahaweli Development Authority, Irrigation Department, Forest Department, Wild Life Conservation Department, Agrarian Services Department and Plantation Companies. The length of these roads has also never been properly
assessed, but is estimated at 4,500 km by the Road Sector Master Plan. Though these roads have not been gazetted as public roads, public funds are used for their maintenance as these roads in most cases are used as public thoroughfares and accessed by the rural population.

- **Roads not maintained by any Institution:** There is also an unspecified length of road in each province, which has not been included in the road inventory of any government institution. These are usually roads serving a collection of houses or very small villages, which have been constructed through self help schemes (Shramadana) or funded by the decentralized votes of parliamentarians or provincial councilors, but have not been officially handed over to the Pradeshiya Sabha. The extent of such road length is not known.

In addition, there are quite a significant number of rural roads which have not been inventoried. Moreover, this does not include all the roads managed by other government institutes such as Irrigation Department, Wild Life Department, Forest Department and so on, which are also used as thoroughfares, but are not listed under a road agency.

There have been many unsuccessful attempts at attracting the private sector for construction of roads as private-public partnerships in Sri Lanka. As such all roads at present are owned and managed by the respective institutions under the different levels of government. There are currently no toll roads or collection of tolls. The only instances where private sector is involved is in the provision of manually operated ferry services on low trafficked roads across water bodies where bridges are yet to be built.

### 2.1.2 Operational Performance and Benchmarks

Even though Sri Lanka has an impressive length of road network its performance in terms of speed and safety are not satisfactory. The TransPlan\textsuperscript{37} road database on the national road network shows that less than 2% of the network has an IRI (roughness index) of less than 2 m/km. However, according to the roughness data collected in 2006 to 2008 approximately 33% of the Core National Road Network is in good condition in terms of roughness measured as IRI less than 5.5m/km. About 19% has 5.5 to 7.0 m/km roughness\textsuperscript{38}. In fact about 9% of the length of the network has an IRI of more than 10 m/km which is considered most unsatisfactory. With the national network in such poor standard, the provincial and local authority roads for which there are no measured indicators are bound to have worse conditions. The poor maintenance is

\textsuperscript{37} University of Moratuwa, 2006  
\textsuperscript{38} Planning Division, RDA, 2008
Review of Sri Lanka Transport Sector

contributing to the congestion costs estimated at Rs 32 billion per annum, accident costs at Rs 12 billion per annum and lost economic opportunities at Rs 270 billion per annum.\(^\text{39}\)

The high density has been at the cost of inadequate quality in maintenance at all levels as well as mobility at the higher levels. Average speeds of the network are still low for the anticipated economic growth and may be summarized as follows:

- Colombo and suburbs: 10 to 20 km/hr
- National Highways (Western Province): 15 to 30 km/hr
- National Highways (Wet Zone & Upcountry): 20 to 40 km/hr
- National Highways (Up country): 20 to 40 km/hr
- Provincial Roads: 10 to 40 km/hr
- Urban Roads: 10 to 20 km/hr

2.1.3 Problems & Issues

2.1.3.1 Sustainability of Road Expenditure\(^\text{40}\)

Given that adequate funds are available and that projects are properly planned to achieve optimum returns where projects are well implemented and funds fully utilized, there would still be a question of sustainability of these infrastructure in the future. In other words, can adequate funds be provided to ensure that these roads remain at an acceptable quality and able to provide the outcomes that were intended of them? This is particularly pertinent in Sri Lanka where the bulk of the road work is still awaiting rehabilitation and as such, increasing level of maintenance funds will be needed in parallel with investments to bring the road network to maintainable standard. Therefore, any rehabilitation has to be supported by a source of sustained funding to keep it in optimum condition. Currently maintenance cost provided in the allocation to the RDA is around 5%. Given the fact that the majority of the network has life expired and maintenance is an expensive exercise, the Government is in a quandary between capital expenditure to rehabilitate the roads as opposed to recurrent expenditure in keeping them motorable even though the cost is relatively higher.

2.1.3.2 Priority for Maintenance

Experience has shown that when the urgency for rehabilitation becomes apparent it is the maintenance funds that are often reduced to accommodate such spending. Thus, maintenance has always been under provided. This of course leads to shorter life spans of even the new roads as

\(^{39}\) Source: Kumarage, Amal S. LBO, May 2006

\(^{40}\) Kumarage, Amal S. ‘Roads Public Expenditure Review’, World Bank, June 2006
well as the rehabilitated roads and in most cases, the desired socioeconomic benefits never be achieved in the long-term. As such factories open and close, employment increases and then falls away, even social services are abandoned due to deteriorating access. This in addition causes withdrawal of public transport services which affects access not only to economic opportunities but also to social services. As such the segment of the population that does not have sufficient income to own and use private vehicles will suffer the most.

Even foreign funded road projects carried out at the provincial and local authority level are also presently suffering from this same problem. For example, the urban road & bridge development projects implemented under the UDLIHP program are also not being maintained as adequate resources are not available with the urban and municipal councils. A similar situation exists on provincial roads where maintenance contracts which were signed at time of contract have been terminated due to various problems, especially after the intense flood damages that many of the rehabilitated roads suffered in 2003.

GoSL has made progress recently by implementing an interim road maintenance trust fund (known as the RMTF) so that continuous and adequate flow of funds is available and to avoid funds required for maintenance competing with the more popular spending on new roads. The Road Maintenance Trust Fund is now operative, but presently is confined only for national roads.

2.1.3.3 Poor Design Standards

More than 33% of the National Roads have been rehabilitated or are in the process of being rehabilitated (ongoing projects) and another 1,730 km have been committed for rehabilitation within the next few years. The majority of the balance roads are presently in unsatisfactory condition or lacking the required capacity or proper geometric standards thus contributing to unnecessary delays and accidents. Even roads that have been funded by donor agencies have become vulnerable to this problem. With cost escalations, often road width is reduced in favour of more km in length. As such key aspects of ensuring better speeds and safer roads are often neglected.

2.1.3.4 Difficulties in Acquisition of Land

Although, new land acquisition and resettlement procedures have been introduced in the recent past to expedite the land acquisition matters, there are still difficulties in dealing with these procedures.

There are separate units operated under many rehabilitation projects and major new construction projects to expedite the land acquisition matters. However, there are delays in settling compensation to respective people due to lack of funds. Government has introduced new mechanism of issuing treasury bonds for some of the affected people in lieu of paying cash. It is popular among many people considering its value as an investment. Difficulties in land
acquisition have a two-fold impact. Firstly it slows down or prevents new links or widening of existing roads. Secondly it reduces the width available for providing safe carriage for the different road users thus impeding their safety. As such realignment of roads on which carriageway is widened or riding surface is improved is a major problem. Many funding agencies preclude acquisition since it slows down project implementation. This creates unsafe roads where the accidents involving pedestrians and cyclists in particular have increased.

2.1.3.5 **Lack of attention on Traffic Management and promotion of Public Transport**

Unsustainable increase in private *vehicle use* in urban areas has created several problems in increased traffic congestion, road accidents and air pollution in the city centers.

However road projects have not given adequate attention to issues of traffic management in urban areas as well as in promoting public transport as the long-term solution in urban areas. Since the roads on which bus services operate are owned by agencies such as the RDA and PRDA there should be a greater interest from these agencies to promote facilities for bus transport.

However in general road agencies do not consider it as their direct responsibility and currently do not have any expenditure heads for such investments even for insignificant things such as to erect a bus stop or to concrete a heavily used bus stop or to provide a shelter for bus passengers. Even foreign funded projects have in general failed to provide such funding.

2.1.3.6 **Lack of Priority for Road Safety**

Road projects also do not always practice minimum safety standards in road works. This needs intervention from planning to implementation stages. In the planning and design stage it is required to ensure that curvatures on roads that are being improved subscribe to the increased speeds generated by improved surfacing and widening. Moreover, the requirement for pedestrian facilities on shoulder and of pedestrian crossings needs to be incorporated. The general tendency is that roads that have been rehabilitated lead to higher accidents and increase in intensity of accidents as well.

2.1.3.7 **Human Resources Development**

Presently, road sector agencies have very little provisions for training of personnel. Even most road engineers have never taken highway construction or traffic courses as some of the universities teach these only as optional subjects. Moreover, a significant proportion of those who become engineers through continuing professional development also may not have followed such courses of study.
In addition, middle grades such as clerical, technical officers lack basic computer and communication skills. It would be most useful for a sector that has to undergo rapid development to invest in its personnel especially in the next few years.

2.1.3.8  **Research & Development**

The Land Transport Policy (2009) recommends that an allocation of 0.05% (1/2000th) of the funds allocated as capital expenditure to the highway sector be allocated to research funding organizations such as the National Science Foundation or National Research Council as grants for disbursement to reputed research organizations for research and development programs on provincial, urban and rural roads. The cost of this would be around Rs 40 million per annum. This will assist in improving construction methods, utilization of indigenous material, human resource management, development of computing techniques, mapping and other information systems, planning methods etc.

2.1.3.9  **SME Road Contractors Capacity**

Most road construction work is carried out through contractors. In the provinces the maintenance is also on contract, as was in the RDA up to a few years ago. The low capacity of contractors working on local authority roads and even on provincial roads is a stated reason for the low utilization for allocated funds. In this respect, it will be necessary to conduct regular programs to develop the management and technical capacities of such contractors. This may be a program that could be funded by a donor agency to begin with and made in to a self financing program afterwards.

2.2  **Railway Transport**

Due to continued neglect of all forms of public transport for several decades, the quality and service of public transport have not kept pace in terms of modernization and passenger comfort. This and rising per capita incomes have resulted in the gradual decrease of share of public transport over the last three decades, even though the number of passenger carried has continued to increase.

2.2.1  **Regulation, Ownership and Management**

Railway operations in Sri Lanka from its inception have been in the hands of the government. Private sector participation is limited and restricted to non-core functions. The Railway Ordinance under which the railway operated does not allow outsource of its operational activities. In 2003 the government proposed to make the railways a statutory agency. However there was trade union opposition and the new government coming in to office in 2004, reverted it back to a
department. In terms of operational activities, only a section of track north of Puttalam has been provided to access a cement factory for a goods train.

The Strategic Enterprise Management Agency under the Presidential Secretariat is assisting the railways to develop its business and management areas.

The commitment and competency of railway staff in rehabilitation and repair of track has been demonstrated in several instances particularly in the restoration of damages following the tsunami and the restoration of track and building damaged due to conflict in the north and east.

The delays in train operations have reduced with the arrival of new rolling stock. This shows that the railway service can improve with investment. However, management plans to ensure higher productivity and better commercial practices are weak and need to be strengthened on a priority basis.

### 2.2.2 Operational Performance & Benchmark

The past few years have seen a renewed interest in government investment in public transport. Consequently, both quantity and quality of service are beginning to show some improvements after many years of continuing decreases in patronage. A summary of the railway operating details is given in Table 2-1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Train KM Mn</th>
<th>No of passenger Mn.</th>
<th>Passenger km Mn.</th>
<th>Freight Ton Mn</th>
<th>Freight Ton km Mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>8.50</td>
<td>84.2</td>
<td>3207.5</td>
<td>1.20</td>
<td>88.4</td>
</tr>
<tr>
<td>2001</td>
<td>8.86</td>
<td>95.6</td>
<td>3979</td>
<td>1.26</td>
<td>106.5</td>
</tr>
<tr>
<td>2002</td>
<td>8.47</td>
<td>106.3</td>
<td>4079.3</td>
<td>1.45</td>
<td>130.5</td>
</tr>
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<td>2003</td>
<td>8.08</td>
<td>113.1</td>
<td>4606.2</td>
<td>1.50</td>
<td>128.6</td>
</tr>
<tr>
<td>2004</td>
<td>7.93</td>
<td>114.6</td>
<td>4684.2</td>
<td>1.60</td>
<td>134.2</td>
</tr>
<tr>
<td>2005</td>
<td>7.87</td>
<td>114.4</td>
<td>4357.6</td>
<td>1.50</td>
<td>134.8</td>
</tr>
<tr>
<td>2006</td>
<td>8.07</td>
<td>105.6</td>
<td>4311.8</td>
<td>1.65</td>
<td>138.2</td>
</tr>
<tr>
<td>2007</td>
<td>8.34</td>
<td>110.3</td>
<td>4766.9</td>
<td>1.70</td>
<td>134.8</td>
</tr>
<tr>
<td>2008</td>
<td>8.96</td>
<td>96.4</td>
<td>4668.6</td>
<td>1.69</td>
<td>120.7</td>
</tr>
</tbody>
</table>

Passengers use has increased even though growth has been somewhat erratic. The freight carriage has increased steadily. But neither has been significant enough to make a serious shift in modal share to the railways.

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41 *Sri Lanka Railways, Planning Division*
Of the network length of 1,447 km only 1,200 km are currently in operation. Total network consist about 800 speed restrictions. There were around 110,000/year trains in operation in recent years. Train operations were increased during last two years by introducing new compartments and engines. A total of 100 carriages were procured from China in 2009 and are now in operation. Furthermore 15 Diesel Multiple Units (DMUs) also from China were procured in 2009 and are now in operation. Cost per unit was about Rs 200 mn.

### Table 2-2: Summary of Annual Railway Operational Details

<table>
<thead>
<tr>
<th>Annual Operations</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of trains Scheduled</td>
<td>116,051</td>
<td>116,024</td>
<td>115,281</td>
<td>122,132</td>
</tr>
<tr>
<td>Total number of trains operated</td>
<td>107,216</td>
<td>106,074</td>
<td>107,055</td>
<td>112,956</td>
</tr>
<tr>
<td>Number of cancellations</td>
<td>8,835</td>
<td>9,950</td>
<td>8,226</td>
<td>9,176</td>
</tr>
<tr>
<td>Train km Scheduled Mn</td>
<td>8.64</td>
<td>8.73</td>
<td>8.76</td>
<td>10.0</td>
</tr>
<tr>
<td>Train km operated Mn</td>
<td>7.63</td>
<td>7.57</td>
<td>8.11</td>
<td>8.3</td>
</tr>
<tr>
<td>On-time arrivals +/- 5 min at destination</td>
<td>44,259</td>
<td>40,171</td>
<td>39,469</td>
<td>35,456</td>
</tr>
</tbody>
</table>

### 2.2.3 Problems & Issues

The major problems and issues identified in the Railway Development Plan and by the consultants are summarized as follows:

#### 2.2.3.1 Modernization of Assets

- The depleted assets base, obsolete signal and communication system and aging rolling stock fleet severely constrain delivering quality service to the travelling public & goods shippers.

- New technological changes in the industry have not been appropriately adapted in to the SLR activities; owing to very little attention that has been paid to research and development function over the years.

- Signaling system is 40-45 years old while most carriages are 25 years old whereas life time is given as 20 years. Because of this annually 7-8% of scheduled trains are cancelled. Deficiencies in the signaling system, results in on-time arrivals dropping to only 30%. Also no rational mechanism has been established for scheduling time tables.

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42Sri Lanka Railways, Planning Division- Includes both passenger and freight trains
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- Existing bridges can carry only about 16.5-18 tons. There is a need to develop the bridges in the network. Five bridges were rehabilitated under Austrian Credit Line in recent years.

- Generally there are 55 engine failures per month in the network. With the intention of minimizing the frequency of failures, the running shed has been re-developed at a cost of Rs. 110-115 mn.

2.2.3.2 Management

Another point of discussion is the fact that the railways have over 17,000 workers. It is considered that it does not require all these workers if required modernization can be effected. Hence, this remains as an area where some degree of future reforms can be undertaken, provided that the concerns of workers are also addressed simultaneously. However, the large number of trade unions most with political affiliations, make changes difficult.

2.2.3.3 Safety at Road Rail Crossing

There are also approximately there are about 1,000 railway road crossings in the network. 200 such crossings have been protected. Annually the SLR protects 3 or 4 crossings depending on the availability of funds.

2.2.3.4 Restoration of Track and other assets damaged due to conflict

The railway lines in the north and east are in need of restoration of damages due to conflict. While the work in the east is nearing completion, the Northern Line and the Talaimannar Line are to be restored in the next few years.

2.2.3.5 Improving the Goods Transport Services

Goods transport which was the primary service which caused the construction of the railways is continually being lost to the road transport. With that the railway also loses avenues for profitability. The entire goods transport facility remains abandoned for the most part with the railway concentrating on the transport of a few commodities such as fuel, flour and cement. A concerted effort is required to revive the goods transport service especially in the longer distance routes to Jaffna, Mannar, Vavuniya, Anuradhapura, Polonnaruwa, Batticaloa, Trincomalee, Badulla and Matara. Connections to the Port of Colombo and to free trade zones and other places that will have direct shipments should also be a part of this plan. Since the current revenues from
goods transport are very small, it would be useful to enter in to a PPP or Joint Venture with a private road haulage company for improving this service.

The current initiative to setup an Inland Container Depot has been supported by the Asian Development Bank.

2.2.3.6  *New Lines and Track*

Feasibility studies are being carried out for new railways tracks. While capital investment may be justified on grounds of better connectivity and political value, the financial sustainability would require some degree of commercial commitment possibly by entering in to MOUs with ports, free trade zones etc that would benefit from such connectivity. The SLR would require some guidance on how such ventures may be initiated.

2.3  *Bus Transport*

Bus Transport has provided the backbone of passenger mobility since Independence. There are 23,228 public transport buses in use in Sri Lanka at the end of 2008. These can be tabulated as follows:

- Sri Lanka Transport Board – 4,758
- Inter-Provincial Private Buses (Administered by NTC) – 3,058
- Intra-provincial Private Buses (Administered by relevant provincial councils) – 15,412

A number of institutional, structural and operational issues have prevailed for a considerable period of time, thus denying the individual and corporate citizens of Sri Lanka a satisfactory inter provincial bus transport service. As the national regulator for bus transport, the National Transport Commission has over the last few years, taken several steps to improve the quality and quantity of bus transport.

2.3.1  *Regulation, Ownership and Management*

The sector is partitioned to State owned operations by the SLTB and the private operations. The latter is yet again regulated by the different agencies. The inter-provincial long distance routes are regulated by the NTC, while the local and provincial services are regulated by the respective provincial road passenger transport authorities (RPTAs).
While the state operator is the one time monopoly operator whose market share is now around 27%. It provides services throughout the country and is contracted for a number of socially necessary services such as school buses, rural services and night services. On the other hand the private buses are operated by individuals most of who own just one or two buses. There are very few fleet operators with no one owning more than 50 buses in a total fleet of over 18,000.

It is the stated intention of the Government in the Land Transport Policy (2009) to streamline the bus industry with the following policy level interventions:

1. Continuity of omnibus operations by State and private sector.

2. All services to be provided on basis of a rotated integrated timetable which will include both State and private operators and ensure equitable opportunities for each bus owner.

3. Imposition of Standards for Vehicles to be used as Omnibuses which will improve in keeping with the increasing personal incomes of the population so that a desired environment within which the trips is made and its comfort is maintained.

4. Imposition of a Registration, training and monitoring system for bus crews and Minimum Qualifications and training for entrants.

5. Changing present conditions for the issue and renewal of individual Route Permits to Private Sector to Route-based Omnibus Service Contracts.

These steps will essentially convert the private bus industry from its present condition of individual entrepreneurs who are loosely regulated, to one that is regulated through an institutional mechanism. This is expected to solve many of the existing problems while bringing it alongside more advanced forms of regulation practiced in the world today. It will also envisage bringing both the private and public operators under the same policy framework.

No general operating subsidies are to be provided except in the case of cushioning rapid increases in fuel prices, which cause fares to increase above a maximum stipulated under the Fares Policy for which a mechanism and procedure would be set in place by the NTC. In addition to these, the Government will offer targeted subsidies for specific purposes for the concessionary travel for the following persons:

- Students of Schools, Technical Colleges and Universities
- Senior Citizens registered with the Department of Social Services
- Persons with special needs
2.3.1.1 **Private Buses**

The bus sector was deregulated with an almost unfettered entry of new private operators in 1979. The concept of a market driven industry with little or no regulation was mooted at that time by international donor agencies, citing the financial losses made by the State operators. This led to unbridled growth of the industry which did not have any regulatory mechanisms in place to improve quality of services or ensure passenger rights. It has taken 30 years to even begin to change the tide and for regulators to enforce quality controls including basic parameters such as time tables and standards for bus crews.

Arising from a policy change, regulations were created in 2004 for the formation of companies that would own and operate at least 50 buses. However, the anticipated conversion did not take place due to reluctance by operators. Currently the NTC is piloting a program in forming public limited liability companies on a route basis. As individual owners are small time entrepreneurs, much awareness and training is required to ensure they understand and are able to work within a corporate structure.

2.3.1.2 **State Buses (SLCTB)**

The SLTB is the fully government owned bus operator. Its primary role is to provide stability in the market and to prevent monopolistic behavior on the part of the private operators. It will also aim at providing leadership in benchmarking professionalism, technological innovation and modernization in the sector. Therefore it will meet the minimum standards set out for the private operators and attempt at all times to exceed them.

In order to facilitate this, the SLTB is offered the right of first refusal for 40% of the scheduled capacity on any route or service or group of routes, wherein such percentage does not exist at present. The State Owned SLTB delivers their island-wide passenger transportation services with an inventory bus fleet of 9,300 and a schedule for 7,100 buses. In 2008, the average scheduled km per day was 1,657,977 but only 857,033 km (approximately 50%) of the schedule was operated. It currently carries around 27% of the bus passenger traffic.

<table>
<thead>
<tr>
<th>Buses And Employees</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet (Average)</td>
<td>8,436</td>
<td>8,455</td>
<td>8,852</td>
<td>9,018</td>
<td>9,326</td>
</tr>
</tbody>
</table>

43 *Sri Lanka Transport Board, Planning Division*
The Transport Policy (2010) sets out the intent of the Government to form corporate entities. Some Pilot companies are functioning already. The NTC is set to implement this for inter-provincial routes using Treasury funding allocated for this purpose. While there are requests from provincial authorities and intra-provincial bus operators, there are no committed funds for this purpose for assisting the new companies and for training the RPTAs accordingly.

The SLTB on the other hand does not have the adequate management competencies to professionally manage and operate a fleet of 5,000 buses. This includes the competencies of most of the staff at all levels of management from Head Office to Depot level and also include the technical, administrative, financial, and operational managers. In the face of competition from the private sector, it is imperative for the SLTB to develop a commercial competency to introduce new services and to expand its customer base by offering a better and more attractive new service especially to niche markets.

### 2.3.2 Operational Performance and Benchmarks

When compared to bus services of developed countries, buses do not operate adequate km due to poor regulatory controls and poor planning. Private bus crews work long hours which are illegal. The accident rate of private buses is unacceptably high. Passenger overcrowding at peak periods is unacceptably high. However, these buses operate at a profit while charging an average fare as low as around Rs 1 per km. (US 9 cents).

On the other hand Sri Lanka possesses one of the better bus transport systems in all of South Asia with bus use per capita being the highest in the region while fares are kept affordable to most income deciles in society.

The SLTB maintains its own garages and carry out repair works of engines and body kits. The number of employees may be considered as being high at 8 per bus even though on average a SLTB bus provides more service km per day than a private bus.

The SLTB provides a number of socially obligatory services as determined by the government for which subsidies are paid but the extent of actual operating losses in providing such services have not been assessed as yet. Some of these are:

### T.T.R (Average) ($\bar{x}$)

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>T.T.R (Average)</td>
<td>6,750</td>
<td>6,764</td>
<td>6,946</td>
<td>7,064</td>
<td>7,112</td>
</tr>
<tr>
<td>Ave: Buses Made Ava: a Day</td>
<td>4,450</td>
<td>3,929</td>
<td>4,077</td>
<td>4,661</td>
<td>4,770</td>
</tr>
<tr>
<td>Ave: Buses Operated a Day</td>
<td>4,133</td>
<td>3,673</td>
<td>3,776</td>
<td>4,129</td>
<td>4,246</td>
</tr>
<tr>
<td>Ave: Scheduled Km: a Day</td>
<td>1,648,577</td>
<td>1,643,345</td>
<td>1,679,041</td>
<td>1,658,393</td>
<td>1,657,977</td>
</tr>
<tr>
<td>Ave: Km Operated: a day</td>
<td>779,729</td>
<td>679,092</td>
<td>713,753</td>
<td>835,313</td>
<td>857,033</td>
</tr>
<tr>
<td>No of Employees</td>
<td>36,229</td>
<td>35,329</td>
<td>34,993</td>
<td>34,672</td>
<td>34,074</td>
</tr>
</tbody>
</table>
• School children are issued season tickets with 35% discount after recovering from them just 10% of the full fare. The balance 55% of the fare has to be reimbursed by the Education Department.
• The armed Forces and the Police are issued travel passes with 35% discount. The balance 65% of the full fare has to be reimbursed by the Armed Forces and the Police. Reimbursements often get delayed.
• Season tickets for students of universities and/technical colleges are issued with 35% discount of the full fares and the balance 65% has to be reimbursed by the Education Department.
• Transport of newspapers and transport of mails for postal department, additional transport services to the Armed Forces are also undertaken but the payments for such services are considered inadequate.
• Senior citizens over 70 years are issued with coupons to facilitate travel by SLTB buses paying half the fare of the journey. The SLTB undertake this mission as a national duty.
• Financial loss in operation of early morning and late night trips are not compensated so-far except in few services under the NTC sponsored Nisi Seriya program.
• Variable cost of uneconomic rural services is compensated through Gami Saeriya Project.

2.3.3 Problems & Issues

The consultants have identified the following problems and issues in the bus sector.

2.3.3.1 Management

The large number of bus operators makes the industry difficult to regulate especially in terms of improving quality of services. Even though there is a demand for investment by small scale entrepreneurs drawn by the myth of high profits, what the industry needs now is for scale to meet rising problems and issues facing bus operators especially in terms of high degree of over supply and inability to meet customer demands.

Attempts at offering Voluntary Retirement Scheme for SLTB employees in 1999 has had only a limited impact as hiring has taken place without corresponding increase in outputs. Several attempts since 2005 to improve management at depot level have not been entirely successful. However centralized management control has resulted in greater discipline and operational output even though financial profitability is still not reached partly due to a sizeable excess staff in certain categories as well as inability to increase revenues with more operations. It was estimated in 2008, that around 8,000 of the work force of 35,000 was excessive for the current level of operations and technology used. More automation and use of IT in accounting and in operations could reduce this by a further 10,000.
2.3.3.2 Integrated Network Planning

There is a lack of network planning to facilitate easier transfers and hubbing operations of buses at different locations. Integration between private and SLTB services as well as inter-provincial as well as intra-provincial services is required to implement such an endeavour.

2.3.3.3 Multi-Modalism

Buses are not providing adequate access to other modes of transport such as the railway stations and airport. These require investment in better multi-modal terminals as well as better understanding between the different transport operators and a greater degree of initiatives by the regulators.

2.3.3.4 Quality Improvements

Buses have deteriorated in quality of services in terms of (a) quality of vehicles used; (b) conduct of crew; (c) value added services; (d) reliability; (e) comfort. The NTC has adopted a Quality Assurance program to benchmark quality of buses and to improve them periodically, as well as to train bus crews, formulate time tables; implement maximum loads etc. There is also a need to penetrate the choice market where those who have the economic strength to own and use operate a private vehicle want to use it by choice if the quality of service is attractive.

In case of the Provincial Road Passenger Transport Authorities mostly perform permit renewals and issue functions and management of bus terminals. Other than in the Southern Province, very few service development initiatives have been noted.

2.3.3.5 Loss of Patronage in Urban areas

Due to poor performance of the public transport sector especially in urban areas coupled with rising incomes, the modal share of bus passengers seems to be reducing yearly. This will badly affect the mobility in urban areas and will become a growing problem in future years. Higher quality urban bus transport on the lines of the CityLiner service commenced by the NTC is an initiative that needs to be pursued quickly.

2.3.3.6 Timetables

Several initiatives have been taken since 2003 to implement time tables on bus routes. However only the Southern RPTA and the NTC have been partially successful in this project due to the resistance from those operators who have monopolized fixed times. Currently the Government Policy determines that all time table should integrate both SLTB and private buses and that individual private operators should be placed on a roster system in allocating slots on the time table.
2.3.3.7 **Safety**

One of the problems of deregulation has been the sharp rise in accidents caused by inability to enforce standards of bus services due to weak regulatory structures. Accidents involving buses claim over 300 lives annually. Some reduction has been achieved over the last 3 years due to implementation of time tables, bus crew training and better enforcement.

2.3.3.8 **Restoration of Neglected Routes and Services**

The NTC as well as the RPTAs have not had regular passenger demand studies carried out. This has resulted in an entirely supply driven market. As such school services, rural services etc. that are unprofitable to commence or to sustain have been abandoned. Currently there is a backlog of school services as well as rural services to restore. Even though over 1,000 such services have been commenced over the last 3 years, another 1,000 services are estimated as being required for the next 3 years, judging by the requests that have already been received.

2.3.3.9 **ICT led Modernization**

One of the most outstanding deficiencies the transport system is the lack of modernization across the entire transport system. Even though Sri Lanka had one of Asia’s best transport systems up to the 1960s, there has been neglect in introduction of modernization for efficiency, comfort and value addition. At present there is hardly any use of modern ICT based applications or computer based...
applications in the planning, operations or in the public information dissemination within the sector.

Even within the SLTB which is a large bus operator there is much inefficiency due to poor controls and reporting systems within the organization. The SLTB is currently developing MIS capabilities in house. However attracting and retaining IT competent staff is an issue as is the adoption of such systems by the rank and file of the organization.

2.3.3.10 \textbf{Passenger Facility Development \& Management}

Another area where standards have deteriorated is in bus terminals and stops. Even though the last few years have seen some investment for the development of bus terminals in different parts of the country there is no program of funding for this purpose. Besides this design standards for such infrastructure needs to be formulated together with sustainable business models.

Many recently developed bus terminals, some even with foreign funds have faced problems due to (a) inclusion of large amounts of commercial space within terminal areas; (b) reliance on revenues from buses; (c) poor designs leading to some dysfunctional areas and facilities and (d) breakdown of cleaning and maintenance services.

2.3.3.11 \textbf{Lack of Professionalism}

However, the most critical short coming is the lack of professionalism in the sector. With the disbanding of the Central Transport Board and the formation of private bus operators, the organizational requirements for people with professional qualifications for transport operations were also lost. This has been further exacerbated with the formation of the NTC and followed by provincial regulators where the stipulations for building up professionals in regulation and planning have been minimal.

While regulations have been enacted through the provincial statutes, their interpretation and implementation has been ad hoc and constantly changing with changing leadership. Most RTPTAs do not have staff that is qualified in transport operations, planning, regulation or enforcement. Such a program of institutional capacity building is urgently required. Moreover, the RPTA’s are closely linked with the provincial political authorities and the independence required of a regulator is often compromised.

2.3.3.12 \textbf{Facilities for differently-abled persons}

There are very few facilities at present for the differently-abled persons to access and use public transport. Facilities in public transport, transport terminals or in terms of specialized transport services are also non-existent.
2.3.3.13 **Performance and Benchmarks**

SLTB as a State-owned bus operator has by end of 2008 achieved around 60% recovery of total costs - both capital and recurrent. By comparisons with many bus operators in developed countries this is an acceptable level of service. By comparison with state-owned bus operations in India again this is acceptable as very few operators have achieved financial break even. The comparison with the private sector shows that the SLTB can achieve financial break if it gets key management issues sorted out and its costing and reimbursement schemes rationalized. It can use its scope as the only bus corporate bus operator to benefit from scale as well.

2.3.3.14 **Lessons Learned from Past Interventions**

The SLTB has gone through a full cycle of decentralization, peoplisation, aggregation and now centralization. It has also gone from nationalization to various forms of attempted privatizations and back again as a State Enterprise. The organization with all its operational inefficiencies is still considered by a significant majority of users, as necessary to counter the private sector cartels and the abandonment of services during lean periods and under patronized areas.  

2.4 **Para Transit**

Para-Transit or Hiring Passenger transport includes any vehicle which carries passengers for fee or rewards other than an omnibus, train or any other mode of public passenger transport. Presently such transport in Sri Lanka includes:

- Three Wheeler taxis
- Taxis offered through Call Centers
- School Transport Services
- Office Transport Services
- Chartered transport services
- Other forms of informal transport services found especially in some rural areas.

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44 A fuller description can be obtained from paper published at Thredbo 10, conference in 2007 in Hamilton, Australia titled ‘100 Years of Management & Regulation of Bus Transport in Sri Lanka, Amal S. Kumarage’. [http://www.sciencedirect.com/science](http://www.sciencedirect.com/science)
Para-transit, which is predominantly made up of over 300,000 three wheelers, also includes a wide cross section of other services ranging from school services to rural vehicles, all of which are also fully deregulated. The high rate of accidents, low productivity and collusive behavior are reasons why some degree of regulatory control may be required for these sectors.

There have been some recent efforts to organize this sector. Some taxi companies have continued successful operations Call Centre operations in Colombo. This is now being extended to the three wheeler industry as well. However, there is a strong preference both from passengers as well as suppliers to continue with the informal and unregulated industry.

### 2.4.1 Regulation, Ownership and Management

Three Wheel Taxis (TWs) used in Sri Lanka, fall within the definition of individual motorized IPTs. Sri Lanka’s TW fleet comprises of an estimated 342,286\(^{45}\) vehicles accounting for around 15% of the active motor vehicle fleet and 6% of the passenger km. It has been growing at around 20% per annum but has recently dropped due to the high price of fuel, economic slow down and in some instances the oversupply in the market.

TWs are becoming a popular mode of para-transport due to their ready availability, provision of door to door service, ease in contacting and having a perception of being “affordable”\(^{46}\). Since TWs are mostly unregulated, this has led to the entry of large numbers of individual operators to the market. The TW operation in Sri Lanka demonstrates characteristics of a cartelized service provision featuring oligopolistic market behaviour. TW drivers are seen as a unified sub-cultural unit of the mass culture demonstrated by their own fashion, vehicle design, music selections and speech.

Over 74% of TW operators are registered at a particular TW park having an informal unionized operation. Majority claim that there are barriers to enter a particular parking place even though there are technically no government regulations preventing the deployment of a TW for hire at a locality.

At present three-wheelers are completely unregulated by any level of government. Fares are negotiated for each trip, although there have been some discussions regarding the implementation of the meters, but previous attempts have failed. This has resulted in the number of three-wheelers in Sri Lanka expanding rapidly. Three–wheeler growth continues because they serve a need in urban and rural areas as an para-transit service since the bus and rail systems are failing to

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\(^{45}\) Central Bank of Sri Lanka, 2008

meet riders’ needs. They are a source of employment for many, a cheap mode of transport, and at this time, impose very little burden on the government as opposed to buses and trains which require subsidies and oversight.

A key feature that would assist the large number of Three Wheeler and other private hiring vehicle operators as well as passengers is the improvement in the management that could be anticipated by the registration of Hiring Vehicle Operators as stipulated by the Land Transport Policy (2010).

Government intervention in the form of policy regarding hiring vehicles is proposed as follows:

- Imposition of Standards for Vehicles to be used as Hiring Vehicles
- Standards for Registered Hiring Vehicle Operators.
- Imposition of standards for registrations and cancellations for Hiring Vehicle Operators
- Imposition of Standards for Managers of Registered Hiring Vehicle Operators
- Imposition of Standards for Hiring Vehicle Drivers and Other Employees
- Imposition of Standards for Members and Employees of the Regulatory Authority

2.4.2 Operational Performance and Benchmarks

In general most TW drivers enter the industry 2 to 3 years after sitting their GCE (O/L) examination and after they have been unsuccessful in finding more permanent jobs. They find that driving a TW is, relative to other employment options, an ‘Easy Job’. Overall, 69% of TW drivers are satisfied with their job.

Even though 43% of operators have pre-determined fares, there is a significant influence from the local unions in this regard. The present fare for the first km is approximately seven (7) times the bus fare for the same distance and around two (2) times the financial cost of running a passenger car. The average fare of each additional km is also high. This is due to low kilometerage operated, high proportion of empty runs, high informal cost of parking stands etc. Additionally there is high variation in fares for the same trip where occasional users, out of town users etc are more likely to pay twice or thrice the fare charged from regular passengers. TWs operators usually increase fares at night time, when raining, when there are no other TWs available or when the passenger requests mid journey stops.

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There is a predominance of using TWs for shopping, getting to work, as access to bus or railway or when public transport is unavailable. However, there is no evidence that many passengers use TWs on a daily basis. 48% of the TW users indicated that they had access to a private vehicle. The popularity of mobile phones use seems to be a newer form of communicating with known drivers. All considered, 67% of the TW passengers are satisfied with the overall service of the TWs in the Moratuwa division and the others stated that they are unhappy with the TWs due to various reasons. It could be concluded that at least 40% of users would not use TWs if there was better public transport.

2.4.3 Problems & Issues

Hence it could be concluded that the foremost issue at the present is the apparent over supply of the market and the corresponding under utilization which has driven up fares due to cartelized operations. While it appears likely that fares could be regulated as in the bus sector, the only way in which prices would become reasonable is when the alternative opportunities for these youth are found and the number of TWs in the market reduces thereby increasing utilization which will hopefully lead to fares also being reduced or at least held constant.

Safety regulation is a critical feature with many reports that a significant proportion of drivers are unlicensed and that three wheelers are involved in traffic violations, accidents and even crime. The Land Transport Policy has announced a policy initiative to formulate these around a Registered Operator with fare, contact number and other information displayed for passengers.

Many TW operators complain that they are not provided with physical facilities for parking while awaiting hires. This concept of stands which is quite successful for operators who congregate around passenger attractors and thereby also provide a virtual door to door service to the passenger causes many problems of traffic congestion by depleting capacity at already congested bottlenecks. However, the modern trend to use mobile phone and call up systems has reduced the demand for stands somewhat.

2.5 Aviation

Sri Lanka's Aviation sector consists of one International Airport and 12 domestic airports. Bandaranaike International Airport (BIA) is the only international airport in the country while Ratmalana and Palalli are the main domestic airports operating at present.

Operation of international air transport services is mainly based on bilateral air services agreements. Sri Lanka has signed 59 bilateral agreements with 59 countries. At present, 26 such agreements

\[48 \text{ Ibid}\]
agreements are operational. Having followed worldwide trends, Sri Lanka has also moved towards Open Skies air services agreements. BIA operates around 80-100 aircraft per day. Sri Lanka has signed Open Skies agreements with six countries. Sri Lanka intends to focus specially on obtaining Open Skies agreements with countries which are potential providers of tourism, trade and investment into the island.

2.5.1 Airports

Bandaranaike International Airport (BIA) is operational 24 hours per day and is managed by the State-Owned Airport and Aviation Services (Sri Lanka) Ltd. (AASL). With regard to airport infrastructure, there have been several phased development programmes within a Master Plan originally formulated in 1981. These developments have been funded by the Overseas Economic Cooperation Fund (OECF) of Japan. The Phase II is presently in progress, with the Stage 1 that consists of improvements to the passenger terminals, addition of cargo terminal space, rehabilitation of runways and the construction of a passenger pier and air bridges having been concluded in November 2005. A feasibility study was funded by the OECF for Stage 2 of the Phase II Master Plan. This study envisages the development of BIA with a second runway as well, as expansion of passenger terminals, as some of the present facilities will become inadequate by 2010.

While the study of a 2nd runway is in progress, there have been discussions regarding the construction of a 2nd international airport in Sri Lanka, there have been preliminary studies in for different locations in the southern part of Sri Lanka. A new location in Udamattala between Hambantota and Thanamalwila has being investigated and construction has commenced at present.

2.5.1.1 Regulation, Ownership and Management

All airports in Sri Lanka are State owned and managed. Funds for their development are found either through foreign loans or through Treasury Funding or a combination of both. Government investment will focus on improvement of traffic control, capacity, safety and security in the Bandaranaike International Airport. Private sector involvement are to be confined to the provision of landside services such as international and domestic aircraft services, food and beverage concessions, duty free shopping complex, taxi services, parking and hotels facilities near by airport.

However it is stated that public and private partnership will be promoted to develop new airports, and improvement of selected infrastructure in the existing airports.
2.5.1.2 Problems & Issues

The aviation sector should be at international competitive level and be able to face with new challenges consequent to development such as the emergence of a new hub in air navigation in the region. The constraints to achieve this as identified in the Aviation Policy are:

- Local airports need to be speedily developed to cater to the needs of domestic air travel particularly to cope with the renewed demand for tourism.

- BIA requires a domestic terminal which facilitates speedy transition of passenger and cargo between international flights and domestic flights. It should accommodate domestic civil flights including helicopters and floatplanes so that tourists and business community can make use of them.

- A Business Plan to promote the BIA as a stopover airport by marketing shopping, sightseeing, get-away holidays centered around the airport on the lines of airports such as Dubai and Singapore.

- All airports need to be integrated to other modes of land transport namely the road network, railway and bus routes for providing choices among modes for access to these airports.

- In addition to developing domestic airports for use of small and medium size aircraft, all inland water bodies should be made available for the use of floatplane operations after conducting a feasibility surveys.

- Infrastructure needed for recreational aviation activities should be made available at domestic and key water aerodromes so that enthusiasts can make use of them.

- Use of aviation for recreational and educational activities needs to be promoted.

- Potential passenger demand for domestic aviation services is low due to small extent of coverage.

- Letting Sri Lanka Air Force operating civil passenger air services for hire or reward without conforming to the existing civil requirements which other airlines have to conform to, creates double standards letting the regulatory exercise for enhanced safety, efficiency and regularity to be viewed of futile in public eyes.

- Sudden changes proposed to existing provisions in the Bilateral Air Services Agreements between Sri Lanka and other States have adversely affected bilateral aeronautical relationships.
• Shortage of local professionals in aviation industry

2.5.2 Airlines

2.5.2.1 Regulation, Ownership and Management

There are bilateral agreements for provision of air services between Sri Lanka and other countries with Open Skies Agreements with six countries. More Open Skies agreements are being sought out. Currently however, the only two international carriers registered in Sri Lanka are both State-owned. Sri Lanka’s Aviation Policy stipulates that multiple local carriers are to be promoted for international air services.

There are several operators registered for domestic services, but currently services are only to a few destinations due to the security situation that prevailed till recently. Services are expected to develop significantly this year.

The current Srilankan Airlines is the business successor to Air Lanka and previously Air Ceylon both of which were fully owned by the government. With Emirates buying over 40 percent of the shares of Srilankan Airlines in 1998, they were appointed as the Strategic Management Partner for the airline. However the deal was debated through out, on charges that even though the airline was showing a profit this was a poor deal for the country. In 2008, the Government terminated the management agreement and has in 2010 repurchased the shares from Emirates. This experience of divesture and attempts at restoring government management is something that needs to be studied and lessons learned there from.

Mihin Lanka is the State-owned low cost provider. In 2005 six private companies were invited to begin low cost operations. However these services did not get final approval and only Mihin Air a State-owned airline provides services. This airline too recently only resumed services after suspending operations due to financial problems. The Air Force too has entered the domestic air passenger transport services.

2.5.2.2 Performance and Benchmarks

Srilankan Airlines was showing reasonable profits over the last few years especially since it was able to maintain high load factors on key routes to Middle East and south India. However, it is argued that most of the profitability came in fact from the airport services that were given as a monopoly to the Strategic Management Partner- Emirates Airlines. The Government decided to terminate this arrangement in 2008. The corresponding loss in profitability in services in 2009 cannot be solely attributed to this management change as most airlines in the region have become loss making due to the impact of the global economic downturn on air travel and due to payments having to be made on aircraft purchases made prior to take over.
2.5.2.3 Problems & Issues

The following problems and issues have been highlighted in the Aviation Policy:

- The required capital investment in air transport is considered high and private sector participation is still minimal in the development of this sector. It is necessary to explore alternative source of finance for the development of aviation. Domestic air services did not expand in the past few decades due to the unsatisfactory security situation in the country and lack of clear policy in regard to their future. Sri Lanka can learn a good lesson from India as to how private sector could be encouraged to invest in the development of aviation section which is capital intensive, high risk, excessively competitive oligopolistic market.

- An opportunity exists for providing training in Sri Lanka for pilots, flight engineers, air traffic controllers etc. While private sector funding is available, facilities at airports need to be made more freely available.

- Lack of technical and financial capacities of domestic investors in the sector has become a barrier to improve the quality of domestic services. Moreover, domestic airline companies do not enjoy tax concessions compared with the SriLankan Airlines and Mihin Lanka Ltd which have received tax concessions in regard to purchasing of aircraft spare parts. They are not provided with aviation fuel at concessionary prices and are subject to various taxes, which have resulted in high prices for domestic air travel.

- Fleet expansion of domestic airlines to respond to market demands are faced with severe restrictions and delays for having to undergo tedious process in getting governmental approvals which exceeds the scope of Civil Aviation Authority of Sri Lanka, which in most cases is uncertain until approval is received.

- Price set for passenger flights operated by Sri Lanka Air Force have imbalanced the level playing environment in regard to market competitions of private operators as Air Force operating expenses are covered by treasury funds. Also the Air Force does not pay taxes or any of the charges levied at airports.

2.6 Regional (South Asian) Transport

Regional Transport in Sri Lanka’s context refers to its connectivity to the South Asia region referred to as the SAARC region. Currently passenger movement out of Sri Lanka is confined to air travel, while goods transport is mostly through maritime transport and to a small extent, air.

There is a bi-lateral agreement to connect the Sri Lanka railway at Talaimannar with the Indian Railways at Rameshwaran, by means of a ferry service. This was abandoned in the mid 1980s due to civil strife in the northern areas of Sri Lanka. In 1984, this service was carrying around 120,000 passengers per annum even though it was closed for around 6 months of the year due to the
monsoon period. The channel that was used is considered very shallow and navigation of modern day vessels is doubtful, even if the services were to be resumed.

2.6.1 Land Bridge

As Sri Lanka is an island and as there is no land bridge across the Palk Strait, there are no international intra-regional roads or railways at present. One of the railway lines from Colombo, north bound to Talaimannar Pier on the north-western coast of Sri Lanka is opposite Rameshwaran, located across the Palk Strait in Tamil Nadu State of India. On both sides the railway lines have been designated as links in the Trans-Asian Railway (TAR).

The Sri Lanka Railways has a relatively small and mainly broad gauge (1,676 mm) railway, with a route network length of about 1,640 track km comprising several lines. If such a land bridge were to be constructed it would connect to the Trans Asian Railway (TAR) via the Indian Railway network which is also now being converted to broad gauge.

The Government’s plan to construct, 400 km of high mobility roads required to support the island’s growing economy could become a part of an Asian Highway system in the future if a land bridge were to be built between India and Sri Lanka. At present the Asian Highway is identified to be extended to Sri Lanka

There is need to undertake a feasibility study for the purpose of a land bridge. The approval of the respective Governments would have to follow subsequent to establishing technical, economic, social, environmental feasibility and a sound investment plan as well.

2.6.2 Ferry Services

More recently two other proposals have been made for the re-connection of Sri Lanka and southern India by direct shipping services. These are proposals for ferry services between (a) Colombo and Tuticorin and (b) Colombo and Cochin. The proposal for the service between Colombo and Cochin was approved by both countries in principle in June 2009 in Colombo.

2.7 Logistics & Freight Transport

The freight transport operation is deregulated. Around 97% of freight movements are handled by the road transport. The freight market share of the Sri Lanka Railway has come down to 2% in the recent past, from 32% in 1979 showing a drastic decline in the efficiency and competitiveness of SLR in handling freight.

All three commercial ports had been connected by railway lines. However, no trains operate at present to or from the Colombo Port.
It is evident that more than 30% of the agriculture produces go waste before reaching the consumer. Marked differences between farm gate prices and retail prices prove the inefficiency in perishable produce transportation. This highlights the problems of high transport costs in most sectors of the economy, indication greater investment in the development of the logistics for goods transport and the supply chain.

2.8 Inter-Modalism and Multi Modal Terminals

There is no agency responsible for inter-modal transport. In this respect up until the deregulation of the bus sector in 1979, the Ministry of Transport provided this role since both the railway and bus service were State operated monopolies. Local Authorities were responsible for providing bus terminals while in most cities the bus terminal was set up adjacent to the railway terminal.

However with the (a) deregulation of bus services and (b) devolution of intra-provincial transport regulation to the provincial councils, institutional mechanisms required for such activities broke down. As a result presently no such coordination mechanism exist other than ad hoc and informal arrangements.

Currently there are hardly any properly designed multi modal terminals. A case in point is the lack of suitable public transport to the international airport at Katunayake. There is a need to design such integrated facilities for seamless travel. This requires for airports to have multi modal access while railway terminals should be provided with bus and road passenger vehicle access and parking. Moreover,

- The NTC Amendment Act proposes recognizing the NTC as the focal point for coordinating such inter-modal matters in transport. This requires institutional support in terms of training of suitable staff.

- There is a need to develop some models of multimodal terminals across the country as a demonstration of this subscribing to international standards. The proposed Bastian Mawatha Multi Modal Terminal in Pettah is one such project that could be developed accordingly, however a project of this nature would require a private public partnership based on a sound business plan.

- Systems such as park and ride are yet to be developed. Promotion of park and ride facilities at selected railway stations is one such opportunity. Developing a typical Business Model for the private sector to develop such facilities without railway loosing ownership of its land is one such initiative that needs to be pursued.
2.9 Other Issues

Transport, especially commercial transport that is unregulated or poorly regulated typically tends to result in heavy external impacts that harm lives, society, health and the environment we live in. In Sri Lanka too, transport in general has led to a number of negative impacts in terms of road traffic accidents, pollution and over development.

2.9.1 Safety

While, traffic laws are prevalent to enforce road discipline, there has been a general breakdown of compliance with respect to traffic rules. This has led to poor road discipline, waste of road space as well as accidents and stress for road users. The Traffic Police have not been able to cope with the rapid increase in vehicles and licensed drivers and riders on the roads and standards have deteriorated.

The number of road accidents and fatalities has increased over the years. Presently there are around 2,300 road traffic fatalities and a further 4,000 or more serious injuries per year. Major causes for these are poor condition of infrastructure, traffic congestion in the urban areas, undisciplined behavior of road users including drivers, riders, passengers and pedestrians. Facilities available for pedestrians and other non-motorized transport modes being minimal thus making them the most vulnerable road users.

In addition there is a significantly number of rail and water transport related accidents as well. Some success appears to have been made in regulatory interventions such as implementation of timetables, crew registration and inquiry into complaints in the bus sector where annual fatalities have reduced by over 30% over 3 years.

A major problem in the arrest of traffic accidents has been the lack of political attention given to the problem. Over the years much investment have been made on infrastructure but very little has been invested in safety to make a significant change. The only such intervention was with respect to the project funded by ADB under the Southern Transport Corridor Project and under NORAD funding.

Safety aspects on driver awareness training, publications and publicity have not been considered over the years. Moreover, attention on checking of motor vehicles road worthiness has also remained at a primitive level. Lack of adequate levels of safety features incorporated in road projects especially in rehabilitation projects where facilities for pedestrians and non-motorized vehicle users have not been adequately provided for.
2.9.2 Environment

At present Sri Lanka have a set of regulations on environmental impact assessments on transport infrastructure. Any new transport or highway project that is anticipated to cause a significant impact has to submit an Environmental Impact Assessment report for approval. But regulation of noise standards for vehicles is yet to be fully implemented.

The Central Environmental Authority (CEA) has by Gazette No 1137/35 of 2000 specified the motor vehicle emission standards for Sri Lanka. Under the Clean Air 2000 program several noteworthy achievements have been gained such as elimination of leaded petrol, ban on importation of older vehicles, and most recently the Vehicle Emission Testing (VET) Program under which all vehicles have to obtain an emission compliance certificate in order to obtain a revenue license for the following year.
This chapter identifies each of the key institutions within the transport sector and those that play a facilitation role from outside and the legal provisions under which they have been set up as well as their functions, goals and objectives. The chapter will also examine the expenditure incurred in each sector along with the investments and revenues that have been generated. Such analysis will include both government and private sector investments in each sector. It will also review the critical issues and constraints in each sector and identify bottlenecks which require interventions in terms of policy, regulatory or institutional reforms or investment. The issues of multi modalism or the lack of it in each sector and the disadvantages such constraints impose will also be discussed.

3.1 Transport as a Devolved Function

By virtue of Section 154G (7) of the 13th Amendment to the Constitution, Provincial Councils are not vested with power to make statues with respect to the functions set out in the Reserved List. Hence in addition to policy formulation and enactment, the implementation of any subject or function which has not been explicitly included in the Provincial Council List or Concurrent List can be enforced by the Government through Acts of Parliament such as the Railway Ordinance, Road Development Authority Act, Motor Traffic Act, Civil Aviation Authority Act, Maritime Act, Sri Lanka Ports Authority Act, National Transport Commission Act etc.

Following the devolution to the Provincial Councils of certain functions, the agencies coming under the Ministry of Transport which are mentioned below, have performed a number of key functions in implementing these policy objectives.

- Formulation of National Policies on Transport and implementation of programs and Projects based on such policies.
- Development of an integrated National Transport System.
- Supervisory control of all Institutions under the Ministry including the Co-ordination and Monitoring of all Programmes and Projects of the Ministry and its Institutions.
- Initiate changes to legislation as may be required by Policy or practice from time to time and strengthening the legal framework required performing the functions of the Ministry and its Institutions.

3.2 Ministry of Transport

The Ministry of Transport on behalf of the Government of Sri Lanka is responsible for National Policy formulation and enactment on all matters pertaining transport within the
National Boundaries of Sri Lanka, including

- Railways
- Highways declared by law as National Highways
- Carriage of passengers and goods by railway, land, sea or air or by national waterways in mechanically propelled vehicles

**Figure 3-1: Transport Sector Organization**

The agencies under which the Ministry of Transport discharges these functions shown in Figure 3.1 are as follows:

- National Transport Commission
- Sri Lanka Transport Board
- Sri Lanka Railways
- Department of Motor Traffic
- National Transport Medical Institute
In addition, the National Council for Road Safety and its National Road Safety Secretariat function within the Ministry of Transport.

3.2.1 National Transport Commission

The National Transport Commission (NTC) has been set up under the NTC Act No 37 of 1991. The functions of the Commission are to advise the Government on the national policy relating to passenger transport services by omnibuses, and having regard to such policy:

- To monitor the availability of omnibus services of an acceptable quality to meet the passenger transport needs of the public and to determine the minimum levels at which such services shall be maintained;
- To specify the conditions subject to which an Authorized Person may issue or renew a passenger service permit authorizing the use of an omnibus for the carriage of passengers at separate fares;
- To monitor and enforce subject to the provisions of any written law, the compliance by permit holders with the conditions of passenger service;
- To specify the documents relating to vehicle fitness, passenger carrying capacity and driver fitness and other evidence that shall be produced to an Authorized Person by an applicant for a passenger service permit;
- To require holders of passenger service permits issued by an Authorized Person to furnish to the Commission such returns and information as may be necessary for the Commission to exercise and discharge its powers and
- To liaise with Government departments, institutions and Authorized Persons, in respect of omnibus services required by them including:
  - The carriage of a mail and
  - The provision of school services on concessionary rates, for school children and for students of Universities, Technical Institutions and other similar Institution.
- To grant passenger service permits for omnibus services in the specified area;
- To ensure the provision of omnibus services on un-remunerative routes, by entering, after the consideration of competing bids, into contracts with persons for the provision of those services and where necessary, providing financial support to persons providing such services and to specify the fares that may be charged by such persons having regard to the nature of the services provided;
- To enter into agreements with any person for the provision of inter-provincial omnibus services and to issue passenger carriage permits in respect thereof;
- To provide managerial expertise and assistance to Authorized Persons, and any other assistance or advise that may be required by Authorized Persons for the proper discharge of their functions relating to the provision of omnibus services and
- To arrange for the carriage of goods on omnibuses.
3.2.1.1 **Administrative Structure and Staffing**

The National Transport Commission comprises a Chairman and six members. The administrative functions are delegated to the Director General and implemented through four departments headed by Directors. The total staff strength is around 140 persons. The NTC has its Head Office in Colombo and one other office at its Bastian Mawatha Bus Terminal in Pettah.

3.2.1.2 **Revenues and Expenditure**

The National Transport Commission meets its operational expenditure from Treasury allocations. Annual permit fees and other charges for services provided lead to recovery of around 40% of this cost. However, since 2007 the NTC has been awarding new permits by competitive tender and revenues have risen sharply. It is expected that the NTC will cover its total recurrent cost in 2010.

As shown in Figure 3.2, the capital funds for the NTC have increased steadily since 2004. These include greater provision for regulatory development and for bus reforms. It also includes the provision of subsidies supervised by NTC for school buses, rural services and night services all of which are identified as un-remunerative but socially necessary services.

![Figure 3-2 : Capital fund allocations for NTC (2004-2009)](image)

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49 National Transport Commission, Corporate Plan 2009
3.2.1.3 **Institutional Constraints & Issues**

- The proposed National Transport Commission (Amendment) Act is required for institutional strengthening to expand its scope in regulation, planning and enforcement activities. While physical facilities in terms of a new building for this purpose have been made available, its supporting IT services in terms of hardware and software are being developed in 2010. It lacks middle and senior management expertise in regulatory and planning functions.

- The different interpretation by some provincial authorities of the powers devolved by the 13th Amendment to the Constitution has led to difficulties in enforcing regulatory regimes across provinces such as the national policy on implementation of integrated time tables, formation of management companies of private bus operators etc.

- The NTC is currently dependent on Treasury funding for its capital programs. The surplus regulatory revenues which have hitherto not been tapped are now being utilized for this purpose through competitive tendering. This has to be further strengthened with the full implementation of the provisions of the proposed NTC Amendment Act.

- The current regulatory regime of managing individual bus operators is currently being transformed into a corporate structure having the same operators as share holders. This is a difficult and often ineffective manner of regulation. This has to be fully transformed to corporate structure with the full implementation of the provisions of the proposed NTC Amendment Act.

3.2.2 **Sri Lanka Transport Board**

SLTB was reconstituted by Sri Lanka Transport Board Act No 25 of 2005 and is the successor to the Ceylon Transport Board (1958-1978), Sri Lanka Central Transport Board and Regional Boards (1978-2005), Peoplized Transport Service (1990-1997) and the Regional Transport Companies (1997-2005). Its functions are:

- To provide an efficient passenger service by bus throughout the country, while competing with the private sector under regulated market conditions.

- To provide bus services for services of a socially necessary service for which specific subsides are provided by the regulator

- To become the market leader in the provision of qualitative bus transport services by improving in reliability and safety, customer care.

- To maintain designated bus terminals and to improve the services at such terminals for passenger benefit.
• To become financially efficient and independent to compete with private sector in the long term.

• To be available for deployment in emergency situations.

3.2.2.1 Administrative Structure and Staffing

The SLTB was reconstituted by Sri Lanka Transport Board Act No 27 of 2005 and is the successor to the Ceylon Transport Board (1958-1978), Sri Lanka Central Transport Board and Regional Boards (1978-2005), Peopleized Transport Service (1990-1997) and the Regional Transport Companies (1997-2005). SLTB comes under the Ministry of Transport of the Central Government and it is headed by a Chairman and supported by a General Manager. Regional Managers have been appointed for the 12 regional companies to administer the regional depots. Total number of the employees of SLTB is 36,773.

3.2.2.2 Revenues and Expenditure

The recurrent expenditure of SLTB for service delivery and management cost of SLTB is given below:

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Variable Cost</td>
<td>5,545</td>
<td>6,303</td>
<td>7,282</td>
<td>9,327</td>
<td>12,447</td>
</tr>
<tr>
<td>Total Semi Variable Cost</td>
<td>189</td>
<td>174</td>
<td>175</td>
<td>201</td>
<td>284</td>
</tr>
<tr>
<td>Total Fixed Cost</td>
<td>4,395</td>
<td>5,057</td>
<td>6,193</td>
<td>6,279</td>
<td>6,621</td>
</tr>
<tr>
<td>Total Recurrent Cost</td>
<td>10,129</td>
<td>11,534</td>
<td>13,650</td>
<td>15,807</td>
<td>19,351</td>
</tr>
</tbody>
</table>

• The SLTB’s recurrent expenditure is facilitated through their own earned revenue and Government allocation. SLTB earns revenue mainly through their passenger transportation. In addition, revenue through special hires, advertising, season tickets, and subsidy payments for rural and school services accounts for 30% of total revenue. Cost of fuel, wages, spare parts and repairing of buses including rehabilitation is funded through the recurrent expenditure. Depreciation or capital costs are not included in this operational cost.

• The operational cost per bus km for SLTB in 2008 is reported as Rs 57.65 (Table 3.2). The earned revenue is accounted for around 74% of this cost which includes the earned subsidies but excludes the wage subsidies granted by Treasury on Cabinet approvals. The operating

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50 SLTB Planning Division
cost is generally on par with that of the private sector, but unlike the private sector its revenue shortfalls makes it continue to depend on general subsidies. This is partly due to management inefficiencies, lost revenue due to operating routes and times that are unprofitable and are yet to be included in the approved subsidy program and lack of commercial orientation. However this gap has reduced from the 41 percent shortfall in 2005 when the SLTB was re-established.

Table 3-2: SLTB Operating Costs and Revenue Rs. Per year (2005-8) 51

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>Per Km.</td>
<td>Rs/. Km.</td>
<td>P. Km.</td>
</tr>
<tr>
<td>Km, Operated</td>
<td>247,868,440</td>
<td>260,519,895</td>
<td>304,889,179</td>
<td>313,674,120</td>
</tr>
<tr>
<td>Waybill</td>
<td>6,416,986,740</td>
<td>7,917,292,095</td>
<td>10,694,751,144</td>
<td>12,973,222,543</td>
</tr>
<tr>
<td>Season Ticket Sales</td>
<td>284,834,198</td>
<td>198,833,241</td>
<td>359,316,816</td>
<td>528,218,172</td>
</tr>
<tr>
<td>Special Hires</td>
<td>137,566,723</td>
<td>150,008,363</td>
<td>233,021,654</td>
<td>326,522,725</td>
</tr>
<tr>
<td>Advertising</td>
<td>3,934,279</td>
<td>8,864,502</td>
<td>3,372,960</td>
<td>0.01</td>
</tr>
<tr>
<td>Season Ticket Reim.</td>
<td>225,998,414</td>
<td>227,332,944</td>
<td>472,917,534</td>
<td>574,891,368</td>
</tr>
<tr>
<td>Uneconomic R. Sub.</td>
<td>174,703,788</td>
<td>196,807,311</td>
<td>281,154,036</td>
<td>357,519,156</td>
</tr>
<tr>
<td>Salary Increase Sub.</td>
<td>2,512,572,965</td>
<td>3,546,917,908</td>
<td>3,050,993,850</td>
<td>2,819,679,440</td>
</tr>
<tr>
<td>Others</td>
<td>250,732,917</td>
<td>422,221,587</td>
<td>345,590,572</td>
<td>503,115,103</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>10,007,350,024</td>
<td>12,688,277,951</td>
<td>15,441,118,566</td>
<td>18,083,168,507</td>
</tr>
<tr>
<td>Profit/Loss</td>
<td>-2,723,416,660</td>
<td>-1,882,473,717</td>
<td>-1,587,974,914</td>
<td>-2,535,716,247</td>
</tr>
</tbody>
</table>

- The Government from time to time provides Capital Expenditure for purchasing of new buses, engines, tyres and for other capital works such as buildings. The capital expenditure as compared to the shortfall in recurrent expenditure is given as follows:

Table 3-3: Shortfall in Recurrent Expenditure 52

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrent</td>
<td>3,065.6</td>
<td>1,333.6</td>
<td>4,976.2</td>
<td>3,653.9</td>
<td>5,034.7</td>
<td>3,530.0</td>
</tr>
<tr>
<td>Capital</td>
<td>3,008.6</td>
<td>3,993.3</td>
<td>3,984.5</td>
<td>2,611.7</td>
<td>2,765.6</td>
<td>2,234.1</td>
</tr>
</tbody>
</table>

3.2.2.3 Institutional Constraints & Issues

The following issues and constraints are identified:

- SLTB requires professional management that will ensure the services are discharged efficiently and the organization is built up as a leading transport provider.

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51 SLTB, Planning Division
52 Year 2008 and 2009 is based on allocations made while other years on actuals
Costing of services is required in order to ensure profitability of services and receipt of reasonable cost re-imbursements for socially necessary services operated as per Government Policy.

Requires continuous training programs for middle and senior level officers in SLTB’s management, operational and technical fields especially to adopt new technologies, management principles and commercial orientation.

Inadequacy of bus fleet and management capacity to operate the targeted time table.

Poor quality of infrastructure facility such as depots, bus terminals and garages leads to poor utilization of resources, poor reliability of services and increased costs of operations.

Resistance to change due to trade unions that are poorly informed or have other motives for opposing development that requires change from status quo.

3.2.3 Sri Lanka Railways

Sri Lanka Railways operates as a government department under the provisions of the Railway Ordinance as a Government Department which are generally quite restrictive when compared to an Authority or similar Statutory agency. Its primary functions are:

- To acquire and maintain assets related to rail track, bridges, buildings and other structures
- To acquire and maintain assets related to a fleet of rolling stock consist of locomotives, Diesel Multiple Units, Passenger Carriages and Freight Wagons
- To acquire and maintain assets related to Signaling and Telecommunication System
- To provide train service for the movement of people and goods on the railway network i.e.:
  - Commuter services
  - Long distance passenger services
  - Intercity express services
  - Local passenger services
  - Freight services
- To maintain ancillary supporting services for the management of train service i.e. Administration, procurement, accounting, information systems and security
3.2.3.1 Administration and Staffing Levels

Sri Lanka Railway operates as a government department under the provisions of Railway Ordinance Chapter of legal enactments. It is administered under the Ministry of Transport. The department is headed by the General Manager with approximate 17,000 employees. There are Additional General Managers and Superintendents under whom the work is implemented.

3.2.3.2 Revenues and Expenditure

SLR earns revenue through their passenger and freight transportation as well as leasing their properties (leasing lands, advertising in stations, leasing spaces at stations etc.)

Table 3-4: SLR Revenue (Rs. Mn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Passenger Ordinary Tickets</th>
<th>Passenger Season Tickets</th>
<th>Parcel &amp; Mail</th>
<th>Goods &amp; Livestock</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>573.2</td>
<td>167.8</td>
<td>32.1</td>
<td>133.3</td>
<td>107.2</td>
<td>1013.6</td>
</tr>
<tr>
<td>2001</td>
<td>680.5</td>
<td>188.2</td>
<td>41.9</td>
<td>173.7</td>
<td>114.2</td>
<td>1198.5</td>
</tr>
<tr>
<td>2002</td>
<td>758.2</td>
<td>200.2</td>
<td>56.5</td>
<td>223.9</td>
<td>123.6</td>
<td>1362.4</td>
</tr>
<tr>
<td>2003</td>
<td>775.9</td>
<td>200.8</td>
<td>56.2</td>
<td>210.6</td>
<td>76.9</td>
<td>1320.4</td>
</tr>
<tr>
<td>2004</td>
<td>994.2</td>
<td>271.9</td>
<td>58.8</td>
<td>260.8</td>
<td>92.3</td>
<td>1678.0</td>
</tr>
<tr>
<td>2005</td>
<td>1147.5</td>
<td>331.3</td>
<td>58.9</td>
<td>270.1</td>
<td>149.6</td>
<td>1957.4</td>
</tr>
<tr>
<td>2006</td>
<td>1385.3</td>
<td>440.6</td>
<td>73.1</td>
<td>319.3</td>
<td>272.7</td>
<td>2491.0</td>
</tr>
<tr>
<td>2007</td>
<td>1586.2</td>
<td>446.8</td>
<td>99.1</td>
<td>314.1</td>
<td>552.9</td>
<td>2999.1</td>
</tr>
<tr>
<td>2008</td>
<td>2024.3</td>
<td>698.9</td>
<td>106.8</td>
<td>363.5</td>
<td>477.7</td>
<td>3671.3</td>
</tr>
</tbody>
</table>

The total earned revenue is not adequate even for personnel emoluments. Of the allocation provided by the Treasury 60% is used for paying salaries of employees. As a result of the increase of recurrent expenditure over revenue, the operational loss of Railway has increased each year. Railway fares and tariff have historically not been increased in keeping with costs but long distance passenger fares have since 2008 been pegged as follows:

- 3rd class fare- normal bus fare
- 2nd class fare – two times 3rd class fare or equal to intercity air conditioned bus fare
- 1st class fare – three times 3rd class fare equal to super luxury bus fares.

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53 Sri Lanka Railways, Planning Division
Table 3-5: Annual Recurrent and Capital Expenditure, Rs. Million

<table>
<thead>
<tr>
<th>Year</th>
<th>Recurrent Expenditure Rs. Mn</th>
<th>Capital Expenditure Rs. Mn</th>
<th>Operational Loss</th>
<th>(Revenue-Recurrence Expenditure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2685.9</td>
<td>6279.5</td>
<td></td>
<td>1672.3</td>
</tr>
<tr>
<td>2001</td>
<td>3020.5</td>
<td>4678.6</td>
<td></td>
<td>1822</td>
</tr>
<tr>
<td>2002</td>
<td>3328.4</td>
<td>1666.7</td>
<td></td>
<td>1966</td>
</tr>
<tr>
<td>2003</td>
<td>3320.3</td>
<td>1437.2</td>
<td></td>
<td>1999.9</td>
</tr>
<tr>
<td>2004</td>
<td>4349.5</td>
<td>2307.9</td>
<td></td>
<td>2671.5</td>
</tr>
<tr>
<td>2005</td>
<td>5511.6</td>
<td>2901.6</td>
<td></td>
<td>3554.2</td>
</tr>
<tr>
<td>2006</td>
<td>6472.6</td>
<td>3569.4</td>
<td></td>
<td>3981.6</td>
</tr>
<tr>
<td>2007</td>
<td>7296.7</td>
<td>6056.9</td>
<td></td>
<td>4297.55</td>
</tr>
<tr>
<td>2008</td>
<td>8224.6</td>
<td>9717.1</td>
<td></td>
<td>4553.31</td>
</tr>
</tbody>
</table>

It is also noted that the year 2008 was treated as the base year for long-term development of Railways. A capital provision of Rs. 16,984 mn was allocated for this purpose. Of this, nearly Rs 10 bn was utilized. The total financial recovery of operational costs was around 42%, while the recovery on total cost in 2008 was 20%.

There are no significant investments by the private sector in railway operations.

3.2.3.3 **Institutional Constraints and Issues**

The following constraints and issues are identified as requiring attention for improving the institutional capacity and structure of SLR:

- Restrictions placed by the Railway Ordinance in making the railway sufficiently competitive and flexible for management and development in a competitive environment.
- Departmental based management procedures do not allow for improving resource utilization through the introduction of modern railway management systems and outsourcing of non-core activities.
- Poor condition of physical facilities such as stations and warehousing need to be modernized with introduction of customer friendly and ICT based services to both individual and corporate customers.

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54 Sri Lanka Railways, Annual Reports

55 Based on discussion with Director Planning, Sri Lanka Railways
Review of Sri Lanka Transport Sector

- Poor market share of goods transport which is a potential area of financial benefit for the railway to offset losses in passenger services.

- Continuing financial losses of the railway operations have become a recurring point of debate at different forum, thus highlighting the need to establish economic independence of the railways and for setting achievable KPIs for the SLR.

- Apparent lack of modernization of almost every aspect of the railway operation including track, bridges, rolling stock, ticketing systems, signaling, telecommunication, and buildings.

- Poor productivity of employees and equipment.

- Excess staff in certain grades and unfilled vacancies in other grades.

3.2.4 Department of Motor Traffic

The Department of Motor Traffic (DMT) was established in 1928 with a view of performing the functions stipulated under the Motor Traffic Act, which are:

- The registration and transfer of ownership of motorized vehicles in terms of the regulations under the Motor Traffic Act.
- The licensing of drivers of motor vehicles on certification of competence.
- The monitoring of the operation of vehicles in terms of road worthiness and pollution.
- The investigation of vehicles involved in road accidents.
- Updating the regulations with respect to standards in the registration and operation of all motorized vehicles.
- The collection of relevant taxes based on motor vehicles.

3.2.4.1 Administrative Structure and Staff

The Department of Motor Traffic functions under the Ministry of Transport of the Central Government. The department is headed by a Commissioner of Motor Traffic. The head office is located in Colombo 5 with a sub-office at Werahera for issuing driving license. Furthermore, some services are rendered through the District Secretariats Offices under the decentralization process of the department in district level. Total staff of DMT is 627 in which 155 of them are located at the head office, 100 at Werahera and 155 at the regional offices.
3.2.4.2 Revenue & Expenditure

The Department of Motor Traffic earns revenue from its registrations of vehicles, issues of driving licenses and other services required by law to drive or use a vehicle on Sri Lankan roads. The revenue and expenditure for the years 2006 to 2008 given below show that around 25 to 40 percent of the revenue earned is utilized for capital and recurrent expenditure of the DMT.

Table 3-6: Revenue & Expenditure

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>1,218.9</td>
<td>2,338.8</td>
<td>1,890.7</td>
</tr>
<tr>
<td>Expenditure</td>
<td>527.7</td>
<td>618.2</td>
<td>875.4</td>
</tr>
</tbody>
</table>

3.2.4.3 Issues and Constraints

The following issues and constraints are identified:

- Inadequate decentralization of RMV activities due to lack of staff and other facilities
- Inadequacy of capacity in terms of technical awareness and modern equipment of staff
- Lack of modern equipment for testing of vehicle fitness
- Poor co-ordination between Head-office and regional offices
- Need to increase the public awareness on road and vehicle usage legislatives
- Need to strength the mechanism of enforcement of relevant regulations and laws

3.2.5 National Transport Medical Institute

The functions of the National Transport Medical Institute as given in the National Transport Medical Institute Act No. 25 of 1997 are:-

- To provide medical services and assistance to drivers and operators operating or driving all categories of motor vehicles including heavy-duty vehicles.
- To examine drivers and operators of all categories of motor vehicles including heavy-duty vehicles and furnish certificates of physical and mental fitness to such drivers and operators.
- To carryout medical examination on drivers and operators of all categories of motor vehicles including heavy-duty vehicles and furnish recommendations regarding their suitability and fitness.
- To provide medical services and assistance in the cases of accidents involving any category of motor vehicles.

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56 Ministry of Transport, Annual Report 2009
• To ensure either by itself or in consultation with other organizations that motor vehicles of all description are operated or driven only by persons who are physically and mentally fit and competent.
• To appoint a panel of suitable Medical Officers to various districts and provinces for the purpose of discharging its functions.
• To render medical advice and recommendations on industrial hygiene and industrial accidents.
• To provide advice and special guidelines relating to the quantum of compensation or damages payable in cases on accidents.
• To set standards and prescribe parameters regarding transport medicine to be adopted and implemented by the relevant implementing authority.
• To render medical services and assistance to drivers and operators employed in companies formed under the Conversion of Public Corporations or Government owned Business undertakings into Public Companies Act No. 23 of 1987, Public Corporations and Private Omnibus Companies, registered under the National Transport Commission Act No. 37 of 1991.

3.2.5.1 Administrative Structure and Staffing

The National Transport Medical Institute (NTMI) was established by Act of Parliament No. 27 of 1997 and formally inaugurated on 1st January, 1999. It is a statutory organization which functions under the purview of the Ministry of Transport. The governance administration management and control of this institute is vested on a Chairman and Board of Directors. Presently there are 223 employees attached to NTMI and 106 of them are at the Head Office while others are working at the 14 branches spread island-wide.

3.2.5.2 Revenues and Expenditure

The revenue and expenditure for the NTMI for the period 2006-2008 are given below. It shows that the institute has been generating its own expenditure over the years and is not dependent on the Treasury for expenditure.

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>97.5</td>
<td>130.3</td>
<td>155.7</td>
</tr>
<tr>
<td>Expenditure</td>
<td>81.6</td>
<td>97.9</td>
<td>90.4</td>
</tr>
</tbody>
</table>

Table 3-7: Revenue & Expenditure for NTMI

57 Ministry of Transport, Annual Report 2009
3.2.5.3 **Institutional Constraints & Issues**

As the NTIM is an organization that generates surplus revenues from its operations, there are no apparent major institutional constraints and issues that have been recorded that cannot be achieved without external assistance. However the following are identified as current issues:

- Due to lack of staff and other facilities, degree of decentralization of NTMI activities are not adequate to provide satisfactory service island-wide.
- Inadequate capacity in terms of technical awareness and modern equipments at in-house management activities.
- Lack of modern equipment and application of new technologies in testing fitness of drivers.
- Need to address timely variations required to the medical guidelines and enactments of such guidelines
- Need to strength the mechanism of enforcement of relevant regulations and laws.

3.2.6 **National Council for Road Safety**

In order to improve the road safety situation in Sri Lanka, the Ministry of Transport and Highways in 1996 established a National Road Safety Secretariat (NRSS). In 1999, the National Council for Road Safety (NCRS) was established as per Motor Traffic (Amendments) Act No. 05 of 1998. The following Sections were inserted immediately after Section 213 of the Motor Traffic Act and were specified as Section 213(A) and 213(B) respectively.

Main functions attached to the secretariat are to interact with Government and Non Government agencies on the National Road Safety Policy; develop and enact comprehensive regulations to prevent road accidents; strict enforcement of road safety regulations; promote road safety strategy for health promotion; motor vehicles to meet with safety standards and to define a procedure for the implementation of economically; technically and socially viable and environment friendly safety measures. However at present NRCS has only confined to two main activities;

- Paying compensation to hit and run accident victims
- Road safety awareness programs in educational institute level

The primary objectives are set out as to:

- Interact with Government and Non Government agencies on the National Road Safety Policy
- Develop and enact comprehensive regulations to prevent road accidents
- Provide technical and financial support to implement road safety policy
- To coordinate activities with multi disciplinary organization to promote road safety
Review of Sri Lanka Transport Sector

- Develop a procedure for the implementation of economically, technically and socially viable and environment friendly safety measures.

3.2.6.1 Administrative Structure and Staffing

Council function under a Chairman and Secretary selected from the members of the Council who represent relevant ministries and institutions. At present there are 16 members of the Council. The NRSS is headed by an Executive Director.

3.2.6.2 Institutional Constraints & Issues

The NRCS though established nearly 15 years ago is still to provide leadership in providing safer roads. Some of the core issues that have been identified are:

- No permanent staff and office building
- No proper mechanism to finance NRCS
- No mechanism has been established for NRCS to monitor the road safety regulations or implement any projects or programs
- Slow progress in practically implementing legal provisions vested with the council
- The political leadership to make roads safer has not happened up to now.

3.3 Ministry of Highways and Road Development

The Ministry of Highways and Road Development is separate from the Ministry of Transport. It is responsible for the construction and maintenance of National Highways in Sri Lanka. The legal provisions within which it functions are to implement the provisions under the:

- National Thoroughfares Act No. 40 of 2008.
- Road Development Authority Act No.73 of 1981 and its’ subsequent amendments.
- Land acquisition Act (Chapter 460).
- Crown Lands Ordinance (Chapter 454).
- Motor Traffic Act (Chapter 203)
- National Road Master Plan:2007-2017

The functions of the Ministry are to:

- Regular maintenance and periodic maintenance of existing Public roads, National Highways, Bridges and ferries on National Highways executed through the subordinate organizations under the Ministry.
- Major Highway and bridge construction projects and rehabilitation programs in respect of Public roads, National Highways, Expressways and Restricted Access highways.
• Technical Assistance programs for Capacity building and Institutional Development of the subordinate organizations under the Ministry.
• Implementation of such programs and projects through the Road Development Authority (RDA), being the main subordinate organization under the Ministry.
• Progress monitoring of all highway development programs and projects.
• Channeling of funds voted to the Ministry by the Parliamentary appropriation bill for the construction, rehabilitation and maintenance of all Public roads, National highways and Expressway projects under the purview of the Ministry, through the RDA.
• Formulation of programs and projects based on ‘National Road Master Plan: 2007-2017’, for creating a high mobility road network in the Country.
• Planning and Development of the existing network of Public roads and National highways
• Coordinating with the Relevant Ministries to obtain external resources such as Foreign aid loans and grants to finance
• Administration of Tolls, Boats and boatmen on inland waterways through the Road Development Authority, being the statutory executive agency under the Ministry.
• Assisting the Provincial Councils and Local Government Institutions in the country to upgrade the regional & rural access road networks within their jurisdiction under the ‘Maga Neguma Rural Road Development programme.
• Monitoring the activities of Maga Neguma Emulsion Production Company (Pvt) Ltd., Maga Neguma Road Construction Equipment Company (Pvt.) Ltd. and Maga Neguma Consultancy and Project Management Services Company (Pvt) Ltd., being the three government affiliated private companies under the Ministry.

3.3.1 Road Development Authority

National Highways are presently managed by the Road Development Authority (RDA) which is a statutory body under the Ministry of Highways and Road Development incorporated under the RDA Act No.73 of 1981. The functions of the RDA were expanded in 1986 when it became the successor to the then Department of Highways.

The RDA is the premier highway authority in the country and is responsible for the maintenance and development of the National Highway Network, comprising of Trunk Roads (A Class- sub categorized as AA and AB) and Main roads (B Class) It is also responsible for the planning, designing and construction of new highways, bridges and expressways to augment the
existing network. The National Highway Network consists of 11,919 km of roads and 4,200 bridges (span of more than 3 m) as at the end of 2009.

3.3.1.1 Administrative Structure and Staffing

The Road Development Authority (RDA) is vested with the responsibility and authority to plan, construct, maintain and improve the network of National Highways in Sri Lanka. The RDA is managed by a Chairman and Board of Members appointed by the Minister in charge of Highways with a Director General as its Chief Executive Officer. The Director General is assisted by 4 Additional Director Generals and 15 Directors to carry out the RDA’s different functions.

The RDA has a workforce of about 3,675 employees under the Shops and Office Act on permanent and contract basis comprising of engineering, technical, administrative, accounting and other support staff. In addition it has about 7,443 employees under the Wages Board of Engineering Services employed for routine maintenance work. However, RDA head office operates only with 415 employees approximately.

The functions performed by the RDA consist mainly of the maintenance and development of the roads, bridges and other structures in the National Highway Network and the planning, design and construction of new highways, bridges and expressways to augment the existing network. The RDA has a responsibility for the development of the road network to cater for the on-going development programmes of all other sectors in the country and the future travel demand.

RDA also carries out traffic and other studies leading to appropriate specialist advice in connection with operational aspects of the traffic system. It organizes research activities to achieve the above objectives through economical and efficient techniques, technologies and materials.

Recent practice in the RDA has been to create a Project Monitoring Unit (PMU) for all foreign funded projects. Senior positions in such projects are usually staffed by RDA officers who are seconded to such projects at a higher salary. There is no incentive offered at present for project completion.

The RDA has in recent years obtained foreign assistance in strengthening its planning functions. As such some software for Road Maintenance Expenditure Control (RMEC) and HDM IV are now available for costing and prioritization of maintenance work.

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58 Database, Planning Division, RDA
59 Road Development Authority, Annual Report, 2008
It is also acquiring detailed road inventory and road condition data. Under World Bank funding the RDA has received a Falling Weight Deflectometer (FWD) and a Profilo-meter in 2010 which are used to evaluate the structural strength of road pavement and collection of condition and inventory data which can be used for better management of the network.

The Environmental and Social Division (ESD) was established under the existing Land Acquisition and Resettlement Division of RDA in July 2008, under the guidance of a Technical Assistance granted by ADB. At present it assists the Planning Division in project formulation by undertaking environmental studies with respect to road and bridge projects and coordinating with project approving agencies appropriately.

3.3.1.2 Revenues and Expenditure

The Government strategy pertaining to the manner of funding the road sector has not been explicitly stated. The implicit strategy it has followed can be gathered from the funding arrangements in past years and particularly the manner in which funding has been allocated for the different road networks.

The funds for the RDA are allocated through the Treasury. The recurrent funds are based on staffing levels and other operational costs, while the capital allocations are based on project proposals that are submitted to the Treasury and included in the budget. These include projects that are funded entirely through domestic funds as well as projects which are assisted by foreign funds through various funding agencies with counterpart funding by GOSL. The majority of rehabilitation/improvement projects are selected by consultants provided by the donor agencies from the identified lists of projects. In the case of domestically funded projects there is no particular pipeline for projects. Projects are chosen based on prevailing political expediencies in addition to the requirements identified by RDA and included in the Investment Plan. Large scale domestically funded projects however are usually mentioned in the budget speech thus officially declaring such projects as policy decisions.

Table 3.8 gives breakdown of fund allocation, as per the National Budget for the period 2007 to 2009, for the execution of different road programs for the national road network.
Table 3-8: Head of Ministry of Highways & Road Development, 2009 Budget (SLR mn)

<table>
<thead>
<tr>
<th>Description</th>
<th>2007</th>
<th>2008</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recurrent Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Emoluments</td>
<td>37</td>
<td>40</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Other Recurrent</td>
<td>167</td>
<td>73</td>
<td>73</td>
<td>79</td>
</tr>
<tr>
<td><strong>Capital Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Expressway Development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern Transport Development Project</td>
<td>7,656</td>
<td>6,015</td>
<td>10,310</td>
<td>12,698</td>
</tr>
<tr>
<td>Colombo Katunayake Expressway</td>
<td>498</td>
<td>1,700</td>
<td>2,850</td>
<td>11,100</td>
</tr>
<tr>
<td>Outer Circular Highways</td>
<td>894</td>
<td>4,469</td>
<td>1,719</td>
<td>6,085</td>
</tr>
<tr>
<td><strong>Highways Development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance of Roads &amp; Bridges(RMTF)</td>
<td>3,410</td>
<td>2,950</td>
<td>2,950</td>
<td>3,530</td>
</tr>
<tr>
<td>Road Network Improvement Project</td>
<td>3,594</td>
<td>1,036</td>
<td>1,636</td>
<td>539</td>
</tr>
<tr>
<td>Rathnapura-Beragala-Bandarawela road</td>
<td>1,528</td>
<td>646</td>
<td>1,146</td>
<td>653</td>
</tr>
<tr>
<td>Road Sector Assistant Project</td>
<td>3,795</td>
<td>4,361</td>
<td>7,249</td>
<td>7,085</td>
</tr>
<tr>
<td>National Highway Sector project</td>
<td>126</td>
<td>3,756</td>
<td>2,665</td>
<td>4,950</td>
</tr>
<tr>
<td>Padaniya Anuradhapura road</td>
<td>-</td>
<td>115</td>
<td>115</td>
<td>1,387</td>
</tr>
<tr>
<td>Widening &amp; improvement of Roads</td>
<td>4,582</td>
<td>4,880</td>
<td>6,040</td>
<td>4,180</td>
</tr>
<tr>
<td>Construction of Bridges &amp; Flyovers</td>
<td>1,889</td>
<td>4,729</td>
<td>7,288</td>
<td>8,264</td>
</tr>
<tr>
<td>Tsunami Affected Road Rehabilitation</td>
<td>6,302</td>
<td>7,143</td>
<td>7,948</td>
<td>8,519</td>
</tr>
<tr>
<td>Institutional Support</td>
<td>2,909</td>
<td>3,901</td>
<td>4,401</td>
<td>3,253</td>
</tr>
<tr>
<td>Maga Neguma</td>
<td>2,442</td>
<td>3,720</td>
<td>3,720</td>
<td>3,000</td>
</tr>
<tr>
<td>Other Capital Expenditure</td>
<td>41</td>
<td>15</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>40,074</td>
<td>50,450</td>
<td>61,066</td>
<td>77,129</td>
</tr>
<tr>
<td><strong>Financing</strong></td>
<td>40,074</td>
<td>50,450</td>
<td>61,066</td>
<td>77,129</td>
</tr>
<tr>
<td>Domestic</td>
<td>20,781</td>
<td>23,913</td>
<td>31,803</td>
<td>28,965</td>
</tr>
<tr>
<td>Foreign</td>
<td>19,292</td>
<td>26,537</td>
<td>29,264</td>
<td>48,163</td>
</tr>
</tbody>
</table>

The recurrent funds are based on staffing levels and other operational costs.

As outlined earlier, the spending on national roads comes from more than a single source. These are identified as:

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60 Source: National Budget-2009
Review of Sri Lanka Transport Sector

a) Central Government Allocations for both capital and recurrent expenditures made available to the Ministry of Highways for work carried out through the RDA.

b) Projects funded through foreign loans and grants channeled to the RDA through the Ministry of Highways.

c) Projects funded through foreign loans and grants channeled to the RDA through other central government ministries and agencies without being allocated to and going through the Ministry of Highways.

A review of the records of both the RDA and the NBD reveals that even though the spending on national roads is mostly carried out through the RDA, there are other ministries such as the Ministry of Nation Building & Development and the Ministry of Local Government & Provincial Councils that handle budget allocations spent on national roads. The spending by the Ministry of Mahaweli on major roads which will eventually become part of the national road network has also been considered.

3.3.1.2.1 Sources & Procedure of Maintenance Funding

The RDA carries out its periodic and routine maintenance by allocating funds to their divisional offices established within the provinces. Allocation for routine maintenance is released according to the road condition assessment made by the Executive Engineers of the divisional offices, based on the RMBEC road maintenance estimation software programme. Road improvement work items are selected on priority basis, taking into consideration the assessed needs for each district. However the RDA always complains that the full allocation cannot be used since the Treasury does not release the agreed Imprest on time.

The Road Maintenance Trust Fund (RMTF) was first proposed under the re-engineering action plans of the Road Sector Development project in December 2005 was as per the ‘Deed of Trust’ to be established at the Treasury. The operation of the fund was dependent on earmarked tax proceeds from the sale of gasoline and diesel. Such allocations were to replace budgetary allocations previously given directly to the Ministry of Highways. The intention of the RMTF was for allocations to the fund to be linked to the sale of gasoline and diesel at the rate of Rs. 1 per liter of gasoline and Rs. 0.5 per liter of diesel. The fund was to commence with $ 30 million for the year 2007 and was expected to be increased by $ 4 million annually until year 2010. It was expected that the fund would then be transformed into a dedicated second generation road fund.

The Consultancy Services have been procured under the World Bank funding to setup guidelines, manual and procedures for this purpose. The consultancy services are in progress now under the supervision of the External Resources Department of Ministry of Finance. At present RDA

\[61 \text{ Source: Kumarage A.S., Roads Public Expenditure Review n Sri Lanka, World Bank, 2006}\]
obtains its road maintenance allocation under the vote titled “Maintenance of Roads and Bridges (Road Maintenance Trust Fund)”. This commenced in 2006 with the approval of the RMTF. The current role of the RMTF is limited to the financing of routine and periodic road maintenance.

### 3.3.1.2.2 Sources & Procedure of Capital Funding

As indicated in Table 2-8 new construction, improvement and rehabilitation work of national roads are funded by the National Budget through the Ministry’s Capital Expenditure allocation. These Capital allocations are based on project proposals that are submitted to the Treasury and are included in the budget. These include projects that are funded entirely through domestic funds as well as projects which are funded by foreign donors with counterfunding domestic funding. Generally, projects for foreign funding are selected by consultants provided by the donor agencies from identified lists of projects.

In the case of domestically funded projects, there is no particular pipeline for projects. Projects are chosen based on prevailing political expediencies. Large scale, domestically funded projects however are usually mentioned in the budget speech thus officially declaring such projects as policy decisions. Allocations coming under the Maga Neguma Program are currently mostly confined to upgrading of rural roads and even though such allocations come under the Ministry of Highways, the RDA is not, other than for some bridge projects, the implementing agency of such work programs.

Some funds amounting to around Rs 100 to 200 mn which are allocated to the Ministry of Highways are transferred on a regular basis to the RDA on completion of specific work programs.

### 3.3.1.2.3 Financing of National Roads (2006-2008)

The RDA has computed the funds accounted by them and the Ministry of Highways for the years 2006-2008 for the National Roads for some of the basic expenditure categories viz; (a) maintenance, (b) minor improvements (c) new and rehabilitation projects. This excludes project expenses incurred by the office of the Ministry of Highways.

<table>
<thead>
<tr>
<th>Table 3-9: Allocations &amp; Utilization of Funds for National Roads (Ministry of Highways)(^{62})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
</tr>
<tr>
<td>Allocated (Rs mn)</td>
</tr>
<tr>
<td>Expenditure (Rs mn)</td>
</tr>
</tbody>
</table>

\(^{62}\) Source: Planning Division, RDA
This shows that overall utilization varies sharply from year to year. This is reputedly due to delays in award of tenders, insufficient imprest released by Treasury and other operational issues.

It must however be noted that the definition of maintenance and rehabilitations have not been consistently followed in fund allocations. Thus a problem of project labeling and investment identification exists particularly at the national level.

3.3.1.2.4 **Utilization**

One of the measures of ascertaining the capacity of the road sector to utilize such a rapid increase in funding levels is the historical utilization of such funds at the different levels of the road network.

According to the NBD analysis, the RDAs overall utilization of funds is much higher at 83.1% of recurrent allocations and 69.8% for capital allocations provided for the year 2005. The period between 2001 and 2005 saw this utilization range between a minimum of 76% and a maximum of 92% for recurrent expenditure and a five year average of 82%. In the case of capital expenditure has ranging between 70% and 91% during this same period, with a five year average of 75%.

3.3.1.3 **Institutional Constraints and Issues**

The RDA has the technical manpower to carry out the road works, but needs capacity enhancement in several key areas including new techniques, project management, planning, road safety, traffic management etc.

Another shortcoming is that presently a significant portion of its manpower is utilized in attending to emergency work on non-RDA roads. Other than for maintenance, all project work is carried out through contractors and their labour.

To address the serious backlog in maintenance, it will be necessary to increase the financial resources for road maintenance. This means at the same time that decisions for investments in
new road capacity need to be rationalized. In order to ensure that funds are appropriately used for maintenance, there is a need to develop mechanisms that provide predictable and reliable resource allocations for road maintenance at all levels of road management. Requires adequate provision of funds for maintenance work on a regular basis by improving the Road Maintenance Trust Fund or by increasing annual allocations.

Moreover, the following issues are identified:

- RDA faces a severe dearth of middle level engineers, especially for planning functions as retaining them is difficult due to higher salaried they can command in other agencies or abroad.
- Ad-hoc nature in road financing which generally based on the availability of finance and the political interests leads to indulge the road programs.
- Out-dated construction methodologies consume longer time for project completion resulting financial losses.
- Inadequate machinery and equipment capacity especially for road maintenance work.
- Shortage of local contractors with higher technical and financial capacities.
- Slow progress in adapting to latest technologies.
- Poor enforcement mechanism of laws and regulations which help to secure the road conditions (overloading etc.)

3.3.2 Maga Neguma

In December 2003, on a Government Policy decision Road Construction and Development Co. (Pvt) Ltd. (RC&DC) the fully owned subsidiary and main construction wing of the RDA was liquidated and steps were taken to award all road works except maintenance to local contractors selected on tender.

However the new Government, which came to power in April 2004, took action to establish three separate Public-Private Companies utilizing the available equipment and plant, used by the defunct RC&DC. The three Companies were identified under the following names.

- Maganeguma Construction Equipment Co. (Pvt) Ltd.
- Maganeguma Emulsion Production Co. (Pvt) Ltd.
- Maganeguma Consultancy & Management Co. (Pvt) Ltd.

This business oriented Public-Private Joint Venture Companies started their activities separately and gradually filled up the void created by the liquidation of the RC&DC. Maganeguma is under the preview of the Ministry of Highways and Road Development and headed by a Chairman accompanied with Board of directors.
Main function of Maganeguma is to develop Rural Roads network through Community Participation. Thereby the Programme will function as a partnership between the Government, the communities and the people. It will assist the development of the technical, financial and other capacities of the communities to maintain infrastructure that is created or developed.

The programs of the Maganeguma are principally funded through the National Budget as part of the annual Consolidated Fund and partly by reimbursable foreign aid and grant programmes. The Ministry of Highways functions as the principal executing agency through the Programme Office.

Community Based Organizations (CBO) in various local areas are the implementing agencies responsible for the identification of the projects. Funds are channeled from the Programme Office to the CBO through the respective District and Divisional Secretaries. The CBO obtains technical and other assistance for identification, evaluation and implementation of projects from respective Divisional Secretaries, Provincial Roads Agencies, Local Government and Executive Engineers of the Road Development Authority (RDA)

### 3.4 Ministry of Ports and Aviation

Mission of the ministry is to ensure the provisions of sustainable and conducive policy environment and regulatory mechanism to offer competitive ports, shipping and aviation services to cater to the national and international maritime and navigation demand services for the development of national economy.

The Ministry of Ports and Aviation was established in April 2004. The Ministry of Ports and Aviation has three (3) distinct functional areas of operation viz., development of ports, shipping and civil aviation.

The objective of the Ministry is in regard to developing the ports, shipping and aviation sectors in the context of the newly emergent international competitive arena as determined by the new technological and structural developments. This involves the maintenance of highly efficient and productive Ports as transshipment centers and airport as busiest hub with adequate capacity equipped with most modern state of art technology.

The functions of the Ministry are to:

- Formulate and effective implementation of the national policy on Ports, Shipping and Aviation.
- Co-ordinate, monitor and supervise programmes and projects carried out by the institutions that come under the Ministry.
- Strengthening the Legal-frame work, that will require for smooth functioning of the institutions coming under the Ministry.
Review of Sri Lanka Transport Sector

- Creating competitive marketing environment and introducing new guidelines to provide better services to the users of Ports, Shipping and Aviation.
- The tender procedure to be observed with regard to projects and procurements as per the guidelines on Government Tender Procedure.

Following institutions are functioning under the purview of the Ministry of Ports and Aviation

- Directorate of Merchant Shipping
- Sri Lanka Ports Authority
- Ceylon Shipping Corporation Ltd.
- Central Freight Bureau
- Ceylon Port Services Ltd.
- Civil Aviation Authority of Sri Lanka
- Air Port and Aviation Services Sri Lanka Ltd.
- Sri Lankan Airlines Ltd.
- Mihin Lanka Ltd

This report will cover only the aviation institutions as the Maritime sector is not included in the ToR.

3.4.1 Civil Aviation Authority

The Civil Aviation Authority of Sri Lanka (the “CAA”) was established under the Civil Aviation Authority Act No.34 of 2002 and is deemed a Public Enterprise for the purpose of audit of accounts under Article 154 of the Constitution of Sri Lanka. The Authority is subjected to the direction and control of the Minister of Ports and Aviation, and reports directly to him.

As the regulator for aviation its primary function is to undertake activities that promote civil aviation safety and security in keeping with International Standards and Recommended Practices adopted by International Civil Aviation Organization (ICAO) and to steer the aviation sector in Sri Lanka as a prime contributor to the growth of national economy. To handle these responsibilities there are 3 functional divisions under CAA namely Aeronautical Service division, Flight Safety Division and Co-operate divisions. The following services are carried out by the each division at present:

- Aeronautical Service Division- Maintaining security standards as specified by ICAO, Human resource development in the field of aviation security, Certification of aviation security instructors and law enforcement officers, Handling flight operation matters within the territory of the country, conducting special projects such as regional office construction and exhibitions, the air space management, issuing over flying and landing
Permissions to international aircrafts and issuing approvals for construction of High Rise Structures including communication towers

- Flight Safety Division- Personnel Licensing such as flying schools, pilot license, Maintenance Engineer’s license, Air Traffic Controllers License etc., regulating international aircraft operations and assurance of airworthiness of domestic services.
- Co-operate Division- Maintaining statistical data in aviation sector and forecasting future trends and developing necessary strategies for the implementation.

3.4.1.1 Administrative Structure and Staffing

The Board of the Civil Aviation Authority of Sri Lanka consists of eight (08) members. Five (05) of them are appointed by the Minister in charge of the subject of Civil Aviation and one of them is selected as the Chairman of the Authority. The Secretary to Ministry of Defense, a representative of the Minister in charge of the subject of Finance and the Director-General of Civil Aviation are the three (03) members of the Board in ex-officio capacity.

The CAA at present consists of one hundred and thirty five (135) positions in the approved cadre which comprises of a Chief Executive Officer/Director General, twenty five (25) senior executives, thirty four (34) executives, forty seven (47) other officers and twenty eight (28) support staff.

3.4.1.2 Revenues and Expenditure

The income and expenditure of the CAA for the period 2004 to 2008 are given below. It can be seen that the CAA also covers its own expenditure.

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>132.9</td>
<td>159.9</td>
<td>155.9</td>
<td>120.6</td>
<td>167.6</td>
</tr>
<tr>
<td>Expenditure</td>
<td>67.0</td>
<td>88.6</td>
<td>105.8</td>
<td>117.9</td>
<td>131.4</td>
</tr>
</tbody>
</table>

3.4.1.3 Institutional Constraints & Issues

The institutional issues that have been identified are:

- Legal provisions vested on the Authority are not still fully enforceable due to political interference and deficiencies in legal provisions.
- Civil Aviation Bill (which will replace the existing Air Navigation Act of 1950) which went through a tedious legal and administrative process lasting eight years was finally

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63 Civil Aviation Authority, Annual Reports
presented to the Parliament in July 2008, but it is still not get through due to several concerns raised by the AASL

- Understaffing highly technical oriented positions such as Flight Operation Inspectors (Recruitments has become difficult for such positions since the rates allowable are far below than the market rates)

The major source of income which was the Pre-paid Travel Advisory (PTA) diminished to marginal levels in 2007 and continued to decline in the first half of 2008 as a result of the introduction of e-ticketing by IATA. This, in turn, resulted in the CAA being compelled to depending on financial allocations from the Treasury, which restricted the autonomy of the Organization. A new scheme known as Overseas Ticket Levy was implemented through a Gazette notification in July 2008 bringing back a new avenue of income, which is considered somewhat sufficient.

### 3.4.2 Airport Aviation Services Sri Lanka Ltd

The main activities of the fully State Owned Company are the development, operation and maintenance of civil airports in the country including the provision of Air Navigational Services, that includes Fire Services and Security which ensure safety of aircraft and passengers in the air within the Sri Lankan FIR (Flight Information Region) as well as on ground and the provision and maintenance of terminal and associated passenger facilities. The company develops its airport infrastructure facilities, utilizing Government Grants and revenue retained for the purpose. The Company also maintains separate sets of accounts for Government Grants for Airport Development Projects and for Retained Revenue Funds.

AASL oversees the overall development, maintenance, administration and service delivery of airports. AASL is being transformed into a marketing oriented public company capable of withstanding competition and benefit from competitive advantage.

#### 3.4.2.1 Administrative Structure and Staffing

Airport and Aviation Services (Sri Lanka) Ltd is a fully government owned company with statutory powers to manage and develop civil airports in Sri Lanka. It is coming under the purview of the Ministry of Port and Aviation. However being a signatory State to Chicago convention of ICAO, the activities performed by the AASL are regulated by the Director General of Civil Aviation in order to ensure that Sri Lanka’s obligations under the Chicago Convention are adequately fulfilled. Presently the number of employees is approximately 3,132. Compared to most East Asian airports this is a high number. For example Singapore’s Changi airport which processes nearly 10 times the passengers has 13,000 employees, while Malaysia’s KL airport which handles around 6 times the passengers has 12,000 employees.
3.4.2.2 \textit{Revenues and Expenditure}

The revenue and expenditure of the AASL for the period 2004 to 2008 are given below. It can be seen that the AASL has been earning a surplus as an infrastructure operator.

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>2,402</td>
<td>2,619</td>
<td>4,454</td>
<td>5,340</td>
<td>5,832</td>
</tr>
<tr>
<td>Expenditure</td>
<td>1,846</td>
<td>1,949</td>
<td>2,434</td>
<td>2,871</td>
<td>4,090</td>
</tr>
</tbody>
</table>

3.4.3 \textit{Srilankan Airlines}

The principal business activities of the Company is the operation of international, scheduled/non-scheduled air services for the carriage of passengers, freight and mail as the designated carrier of Sri Lanka. Providing air terminal services at the Bandaranaike International Airport, sale of duty-free goods on-board, marketing inbound and outbound holiday packages constitute other main activities of the Company. Providing third party maintenance and conducting aviation related training programs constitute ancillary activities of the Company. Group partner of the company, Sri Lankan Catering (Pvt) Limited, whose provide Catering Services to airlines operating through Bandaranaike International Airport.

3.4.3.1 \textit{Administrative Structure and Staffing}

Srilankan Airlines operates as a limited liability company. Government of Sri Lanka owns 51\% of the shares of the company, while 44\% is owned by Emirates Airlines and 5\% by employees. Company is also coupled with its’ wholly owned Subsidiary Sri Lankan Catering (Pvt) Limited, whose principal activity is the provision of Catering Services to airlines operating through Bandaranaike International Airport, Katunayake, Sri Lanka. The Company has 4,837 employees on roll. This compared to leading airlines is considered excessive for the current level of performance of the airline\textsuperscript{65}.

\textsuperscript{64} AASL, Annual Report, 2009

\textsuperscript{65} Capt Chira Fernando, AVi –Soir Seminar, Colombo, May 2010
3.4.3.2 **Revenues and Expenditure**

The income and expenditure of Srilankan Airlines for the period 2004-2008 is given below. There has been a shortfall in 2007 and 2008 which is attributed to the economic downturn and the impact it has had on air travel globally:

Table 3-12: Revenue & Expenditure for Srilankan Airlines (Rs Mn)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>45,397.5</td>
<td>53,808.8</td>
<td>61,160.1</td>
<td>67,963.8</td>
<td>79,128.7</td>
</tr>
<tr>
<td>Expenditure</td>
<td>39,441.8</td>
<td>54,145.2</td>
<td>60,720.3</td>
<td>69,406.7</td>
<td>82,154.0</td>
</tr>
</tbody>
</table>

3.4.3.3 **Institutional Constraints & Issues**

The institutional constraints identified by the airlines in the Aviation Policy are:

- The fleet of aircraft needs to be renewed for which a higher financial investment is required.
- Competition in international market continuously pressurizes to improve the quality of service by applying higher technical proficiency to the industry which is not currently available in Sri Lanka.

3.5 **Provincial Councils**

Certain aspects of transport are presently devolved to the Provincial Councils (PCs) through the 13th Amendment to the Constitution affected in 1989 as per Provincial Council List, which are specifically:

- Regulation of road passenger and goods transport services by motor vehicles within a province
- Provision of road transport services within a province

With the advent of the Provincial Councils, the Finance Commission was made responsible for determining distributional criterion for the allocations made by the Government to the Ministry of Local Government and Provincial Councils under the requirements as per 13th constitutional amendment, together with the Provincial Council Act No. 42 of 1987 and the Provincial Council (Consequential Provisions) Act No. 12 of 1989 which established legislative and executive powers at the provincial level.

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66 *Srilankan Airlines, Annual Report 2009*
It is understood that the above allows a Provincial Council to make statues pertaining to the regulation and provision of road transport services within the province provided they are in conformity with the National Policy and Acts of Parliament. Currently there are three agencies in each province that executes these functions in each province. These are:

- Provincial road development agencies
- Provincial road passenger transport agencies
- Provincial Commissioner of Motor Traffic

### 3.5.1 Provincial Road Development Agencies

Each provincial council has set up an institution that is wholly responsible for constructing and managing provincial roads.

The provincial roads are owned and maintained by the relevant Road Development Authority or Roads Department of the Provincial Council. Provincial Councils do not have any Investment Plans. They rely on projects proposals which are usually a list of names with the length and the total estimated cost as a means of getting funds through the Provincial Budget. Projects are added on request made by elected representatives. The PCs do not use proper road inventories or software for prioritization of rehabilitation or costing of road maintenance.

#### 3.5.1.1 Administrative Structure and Staffing

Provincial Councils manage the roads classified as Provincial Roads through a statutory body referred to as the Provincial Road Development Department (PRDD) or Authority. Western, Southern and North-Central provinces have adapted authority structure while all other provinces are having departmental structure. Authority is headed by a Chairman while Department is by a Provincial Director. Usually this comes under the Secretary of the Provincial Ministry responsible for Engineering Services.

There is usually a Director of the Department and under him Chief Engineers and Executive Engineers to implement the work programs. In some other provinces, a separate authority, most often referred to as the Provincial Road Development Authority.

The number of employees attached to different provincial road development agency depends on the extent and the utility of its network. Western Province is entitled for the highest number of employees with 152 while all the other provinces are having a staff within the range of 50 to 80 numbers.
3.5.1.2 Revenues and Expenditure

The primary source of funding for provincial roads is through allocations made to the Ministry of Local Government & Provincial Councils and distributed to the provinces through the Finance Commission. This is in the form of block grants for recurrent expenditure, part of which is used for the payment of 80% percentage of salaries of all staff at provincial roads agencies. The balance is usually funded through an administrative levy of between 3 to 6 percent made on all capital projects.

The Provincial Councils have deferred joining the Road Maintenance Trust Fund on the premises that the present allocation for maintenance is in adequate and if the same quantum of funds were to be given with more conditions, then joining such would not be advantageous. The provincial councils do not have large labour forces and carry out most of their work through contractors.

3.5.1.2.1 Utilization

As discussed earlier, there are many sources of spending on provincial roads. Utilization rates for all of these are difficult to obtain and even when available are not entirely reliable. The utilization of the Province Specific Development Grant (PSDG) for provincial roads in year 2005 was around 78%.

3.5.1.3 Institutional Constraints & Issues

The institutional constraints have been identified as to:

- No investment criteria for selection of roads for development or maintenance.
- PRDAs need to be modernized with electronic media and training of relevant staff.
- The institutional capacities of divisional offices need to be enhanced.
- Poor procurement and contracting practices.
- Little or no quality assurance practices.
- There are vacancies in some grades and need to create new cadre positions preferably by increasing salaries as it is difficult to retain good staff especially in technical positions.
- Introduce a rational criterion for road selection for development or maintenance
- PRDAs have relatively little equipment and machinery of their own.
- Even though foreign funded projects to PRDAs have PMUs, similar to at the RDA there is a severe dearth of technical staff at the PRDAs. Hence, capacity is limited. Moreover even those available are not adequately trained for functions such as design, planning, etc.
3.5.2 Provincial Road Passenger Transport Authorities

The Provincial Councils were established in 1989 under the 13th Amendment to the Constitution. Subsequent to the Council becoming operative, Road Passenger Transport Authorities have been set up by statute in each Provincial Council, other than on the Northern Province in order to regulate the bus transport within each respective province.

The RPTAs are set up to regularize the provision of omnibus transport together with modes of para-transit such as Three Wheelers and School Vans. Such RPTAs are in general responsible for:

1. Issue of permits for intra-provincial passenger transport.
2. Regulation of intra-provincial bus transport services.
3. Management of bus terminal and other infrastructure that is required for such services within the province.

Some provinces have also begun to regulate other modes of transport such as vehicles providing transport of school and office children and three-wheeler taxis etc.

3.5.2.1 Administrative Structure and Staffing

With effect to the 13th Amendment to the Constitution, each Provincial Council has been set up a statutory body referred to as Provincial Road Passenger Transport Authority to manage intra-provincial omnibus transportation and para-transit modes. Such an Authority is headed by a Chairman with a Director appointed by the Minister responsible for provincial passenger transport. The RPTAs are authorized to issue route permits for intra-provincial buses and for regularizing bus transport within the province. It also entitles PRTAs to enact laws and regulations on para-transit modes such as school vans and three-wheelers.

The number of employees attached to different provincial road development agencies depends on the extent and the utility of its network. Western Province is entitled for the highest number of employees with 927 while all the other provinces have numbers ranging from 100 to 200.

3.5.2.2 Revenues and Expenditure

The revenue and expenditure for two of the PRPTAs are given below:

Southern Province Passenger Transport Authority

The SPRTA has spent Rs 176 million over the last 10 years for the repair and rehabilitation of its bus terminals in the Southern Province. A total of 17 such terminals have been thus maintained.
utilizing funds allocated by the provincial council, Province Specific Development Grant (PSDG) allocated through the Finance Commission as well as the Criteria Based Grant. Rs 27 million has been allocated for 2010 for civil works in a total of 11 bus terminals.

**Western Province Passenger Transport Authority**

Similar to the Southern Province, the Western Province has spent around 155 million Rupees on the repair and rehabilitation of 11 bus terminals over a period of 4 years. These funds are also sourced through the PSDG, Criteria Based Grant and the Provincial Allocation.

It can be seen that compared to allocations to provincial roads, the road passenger transport sector gets a much lower allocation for capital as well as for recurrent.

**3.5.2.3 Institutional Constraints & Issues**

The RPTAs have the following general constraints:

- Have not been able to explore avenues to increase earnings to have adequate funds for agencies to manage their activities.
- Their activities are confined to mainly to the issue and renewal of route permits and in the solving of issues relating to the management of terminals as opposed to activities pertaining to the expansion of regulatory functions to ensure better quality of services provided to public such as implementation of time tables, improve crew conduct, safety, passenger information etc.
- Lacks professional managers and executives who have transport regulatory and planning expertise.
- Requires Business Plans for the maintenance of bus terminals.
- Requires a strategy for generating adequate revenues.
- Requires KPIs and staffing levels for ensure resource efficiency and utilization.
- Requires modernization of information systems, creation of ICT environment and competency.
- Requires greater direct public and service user interaction to serve issues faced by the public.

**3.5.3 Provincial Commissioner of Motor Traffic**

With effect to the 13th Amendment to the Constitution each Provincial Council is entitled to collect revenue license fee from the vehicles registered within the province. The Provincial Department of Motor Traffic (or Office of Provincial Commissioner of Motor Traffic) functioned under the provincial councils administer the motor vehicles registered within the province.
The issue of annual revenue licenses for motor vehicles registered to addresses within the province and the collection of such revenues are the assigned tasks to the Provincial Motor Traffic Department or Provincial Commissioner of Motor Traffic. The provincial department (or Commissioner) does not have legal authority to perform new registrations or transfer of ownership of vehicles which is handled by the Commissioner of Motor Vehicles under the Central Government.

3.5.3.1 **Administrative Structure and Staffing**

To collect the revenue from the annual licensing, each provincial council has established a provincial office for the Commissioner of Motor Traffic which is headed by a Commissioner positioned under the supervision of the Chief Secretary (Finance). Activities of the Provincial CMT are further decentralized to the divisional secretariat offices in the province. Other than for Western Province all the other provinces maintain a staff of between 40 and 50.

3.5.3.2 **Revenues and Expenditure**

Provincial Councils are entitled to receive motor vehicle revenue license fees and a Provincial petroleum taxes (termed Traffic Fees in the Budget estimates). The estimated allocations for the seven provinces, excluding the North East, amounts to Rs 2,130 million for the year 2006. However the estimated allocations using Provincial Council Revenues, is Rs 211.6 for provincial roads and Rs 283.0 million for rural roads, making up Rs 494.6 million which is only around 23% of the estimated ‘Traffic fees’ estimated for 2006. Hence, it can be held that provincial councils are presently not investing an adequate share of their own revenues on roads from the use of which they derive this revenue.

The revenues from all provincial CMTs from the renewal of annual revenue licenses for the period 2006 to 2008 are given below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2256.0</td>
</tr>
<tr>
<td>2007</td>
<td>2587.8</td>
</tr>
<tr>
<td>2008</td>
<td>1684.2</td>
</tr>
</tbody>
</table>

But in reality, these revenues are deducted by the Treasury from the block grant when it is given to each provincial council Therefore in effect; this is added revenue to the central government, even though it is collected for the province.

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68 National Budget Department
69 Only for 9 months
3.5.3.3 **Institutional Constraints & Issues**

The constraints that have been identified are:

1. A better IT environment and provision of service to customers who can then access services made available through internet without physically coming.

2. Better physical facilities for offices.

3.6 **Urban Local Authorities**

Urban roads that are not classified as national roads or provincial roads are maintained by local governments- i.e. MCs, or UCs. There are 18 Municipal Councils and 48 Urban Councils managing between them 5,176 km of road. These roads are called urban local authority roads. Then there are roads in rural areas maintained by rural local authorities called Pradeshiya Sabhas.

3.6.1.1 **Administrative Structure and Staffing**

In Urban or Municipal Councils it is usual to have an Engineer in charge of the road works. Larger Municipalities such as the Colombo Municipal Council (CMC) has senior engineers specifically for roads and traffic matters.

Most Municipal Councils have one or more engineers and a technical staff. However except for the Colombo Municipal Council, rarely are they qualified in modern road construction techniques or have a design office or use any computational aids.

3.6.1.2 **Revenues and Expenditure**

Unlike Central Government or Provincial Government, local authorities are not entitled to collect any revenue for the use of their roads. Therefore they are entirely dependent on either general taxes or allocations from both central and provincial governments. Most local authorities both rural and urban were found to be spending around 20% of their own revenues on roads. The total estimated expenditure on road by all the urban local authorities was estimated to be Rs 1,900 million, while the rural local authorities were spending Rs.637.3 million in 2006. Therefore, the central government and provincial governments which are entitled to collect road user charges (but the proceeds of which are deducted from the block grant) invest only part of such collections on the respective road network, whereas local authorities who do not collect any funds for this are investing on roads.

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70 *Amal Kumarage, Public Expenditure Review of Road, World Bank, 2006.*
In addition to these funds, the allocations made from the Provincial Councils Budget are made available to the Urban Local Authorities.

### 3.6.1.2.1 Utilization

The utilization of funds allocated to local authorities shows that it was around 55% in 2005\(^7\) even though it had recorded much lower percentages in previous years.

### 3.6.1.3 Institutional Constraints & Issues

1. Urban Local Authorities (ULA)s do not have a well defined source of income for maintenance of roads.

2. In most ULAs there is no engineer specialized in road works even though considerable expenditure is made on road works.

3. The technical staff does not have exposure to regular training program.

4. Most ULAs do not have basic road planning and design office and setting out equipment or facilities such as maps, levels etc.

5. The annual funds received for road maintenance are so little that a systematic maintenance schedule cannot be performed and most roads deteriorate beyond design life before maintenance is carried out making restoration expensive.

6. Most ULAs own bus terminals but have no plan to develop them for transport functions. Often ULAs desire to develop such land as shopping complexes for revenue generating purposes and attempt to shift bus terminals to peripheral areas.

7. Most ULAs have a Traffic Committee but lacks technical direction.

8. ULAs in general have not traffic management plan resulting in poor facilities for pedestrians and public transport passengers.

9. With the rapid motorization of most urban areas there is no management plan for parking resulting in congested urban streets.

\(^7\) Ibid
3.7 **Institutions that perform a facilitation role**

3.7.1 **Department of National Planning**

The Department of National Planning (NPD) as a part of the apex Ministry of Finance and Planning committed to policy development, planning and implementation, to accelerate Sri Lanka's economic growth and social progress. This Department provides a national perspective to policies, programmes and projects, in contrast to the sectoral or regional perspectives of other institutions. It is located in the Secretariat of the Ministry of Finance. Its functions have been identified as:

1. Preparation of a Long /Medium Term Development Plans and Investment Programme
3. Review of economic development policies, strategies, programmes and project appraisal
5. Preparation of the project Pipe Line
6. Preparation of observations on Cabinet Memoranda.
7. Implementation of special tasks assigned to the Department.
8. Secretariat to the National Economic Development Council.

3.7.2 **Finance Commission**

Finance Commission performs as an intermediary between the Central Government and Provincial Councils in the process of channeling the domestic funding from centre to provinces as stipulated in the 13th Amendment to the Constitution. The Finance Commission is set up as a statutory body and headed by a Chairman assisted by a Board of Directors. It is mainly concerned on obtaining recurrent and capital grants for PCs under the following types of funding and the monitoring of such expenditure.

1. **Block Grant**: Recurrent expenditures of PCs are covered by these block grants. Other than the Western Province, the other provinces get the majority of their recurrent budget under block grants from the Central Government. For the road and transport sector this includes salaries, overheads and an allocation for recurrent maintenance which in addition to other assets includes a significant portion for road maintenance. More than 60% is payments made through the FC are made of Block Grant which are generally used for personal emolument of the institutes coming under PCs. However the road sector maintenance is completely funded through the block grant which approximately accounts for Rs. 800 mn to Rs 900 mn annually.

2. **Criteria based grant**: This is a grant provided by Treasury to PCs based on socio economic parameters of each province. This grant is then allocated by the PCs for capital expenses of all new and on-going projects of PCs. The majority of these grants are
generally utilized for acquisition, rehabilitation & improvement of fixed assets such as vehicles, buildings & machinery etc. This is generally not provided for the road and transport sector capital works. Criteria based grants are generally utilized for rehabilitation, improvement and acquisition of fixed assets (office buildings, machineries and equipments etc.). Therefore there is minimal usage of criteria based grant on specific road and transport sector capital works.

3. **Matching Grant:** This is a special grant provided to PCs which achieve a higher level of revenue collection than that was achieved in the base year -1992. Therefore it is in the form of an incentive given for increasing revenues of councils. This was made available only till 2006.

4. **Provincial Specific Development Grant (PSDG):** These are capital grants provided for identified and agreed development priorities in the sectors of infrastructure, health and education etc. The Finance Commission has authority to supervise the progress of the performance of the PCs in these projects prior to releasing these grants. PCs do not have provision to deviate from the grant utilization guidelines provided by the Finance Commission. Under PSDG which specifically identifies the projects for which funds are given, the Finance Commission has recommended following capital expenditure for the road and transport sector during the period 2005 to 2008.

<table>
<thead>
<tr>
<th>Table 3-14: Transport and Road Sector Financing under PSDG (Rs Mn)(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transport</strong></td>
</tr>
<tr>
<td>Recommended 57 73 128 136.3</td>
</tr>
<tr>
<td>Actual Allocated 28.3 17.1 37.2</td>
</tr>
<tr>
<td><strong>Road (Provincial, Local Government and Backward area)</strong></td>
</tr>
<tr>
<td>Recommended 2075 3435.0 2638.5 4171.0</td>
</tr>
<tr>
<td>Actual Allocated 1547 1708.6 1897.2 765.9</td>
</tr>
</tbody>
</table>

Since 2007, the FC has got involved in the implementation of foreign funded projects such as in the case of two World Bank funded projects in the provincial health and education sector. However there has not been any transport or road sector projects that have been implemented through the FC.

With respect to all above financing arrangements, the FC is expected to perform the following functions,

\(^{2}\) *Finance Commission and National Budget*

\(^{3}\) *Actual allocated for 2008 is only upto June 2008*
• Consult each of the Provincial Councils on their annual requirement of capital and recurrent funds.

• Assess the annual requirement of capital and recurrent finance for each provincial council and to make such recommendation to the Treasury.

• Make recommendations to each of the PCs for utilizing such funds facilitated through the FC.

• Develop strategies for proper utilization of recurrent and capital finance at provincial level (introducing new programs, awareness programs etc).

• Involvement as an intermediate agency in the process of disbursing the finance from the Treasury to PCs.

• Assess and to monitor the financial and the physical progress of works of projects funded through the FC’s recommendations.

3.7.3 **Urban Development Authority**

The Urban Development Authority (UDA) is a multi-disciplinary organization engaged in urban planning and sustainable urban development in Sri Lanka. The main activities of the UDA are

• Carrying out integrated planning and physical development of declared urban areas.
• Formulating and submitting development plans, including capital investment plans.
• Undertaking the execution of development projects and schemes.
• Formulating and implementing urban land use policy.
• Developing standards and schemes for the improvement of the urban environment.
• Providing technical planning services.

3.7.4 **National Physical Planning Department**

With the amendment to the Town & Country Planning Ordinance of 1946 No 13 on 9th August 2000 the National Physical Planning Department (NPPD) was established. Its primary functions are:

• Formulation of a national physical plan policy
• Preparation of a national physical plan
• Formulation of implementation strategy for national physical plan
• Preparation of physical planning guidelines to be adopted by regional or local physical planning authorities.
Review of Sri Lanka Transport Sector

- Preparation of regional and local physical plans or assists Provincial Councils and local authorities to do so.
- Making recommendations to inter-ministerial co-ordination committee on plans accordance with national physical planning policy for submission to national physical planning council.
- Reviewing periodically the national physical planning policy, national physical plan and national physical planning strategy and recommend to the co-coordinating committee change in such policy, plan and strategy.
- Monitoring the implementation of national physical plan.
- Performing as a secretariat for the national physical planning council and inter – ministerial coordinating committee.
- Performing any activity as directed by the national physical planning council and inter – ministerial coordinating committee.

3.7.5 Board of Investment

The Board of Investment of Sri Lanka completes 29 years of existence in 2007. In this time, it has acted as an engine of growth creating a considerable impact on the country’s economic development. The organization had its origins in the Greater Colombo Economic Commission, which was established in 1978 to generate development in the outskirts of Colombo. Fourteen years later, in 1992, the Commission was reconstituted as the Board of Investment of Sri Lanka (BOI) with its mandate encompassing the entire island.

The BOI is structured to function as a central facilitation point for investors. It operates as an utmost statutory body. The Board of Directors drawn from the Private and Public sector and its several departments are geared to facilitating the investment process.

A high powered Cabinet Sub Committee inter-ministerial leadership providing a form for investor assistance has been set up to strengthen the BOI, clear all bottlenecks and ensure speedy clearance of investment approvals so that investors can implement projects in a hassle free atmosphere.

The PPP Unit of the BOI is the successor to the former Bureau of Infrastructure Investment (BII), during which time the PPP process was introduced in Sri Lanka for development activities. Several power projects and a shipping port were developed during this time on PPP basis.

In August 2006, the Cabinet Sub-Committee on Investment Promotion approved the establishment of a public private partnership (PPP) Unit within the Board of Investment of Sri Lanka. In October 2006, this Unit was officially established. In November 2007, the Cabinet of Ministers decided that the PPP unit will assist other Government agencies in implementing PPP projects.
Among transport sector projects, the BOI has completed the South Asia Gateway Terminal project a USD 240 mn port capacity enhancement project. Its attempt to find investors for the Colombo-Katunayake Expressway was called off after the government decided to secure a loan for this purpose. Currently it has listed the Colombo-Kandy Expressway and a Mass Rapid Transit System for Colombo Metropolitan Area in its project pipeline.

3.7.6 Traffic Police

The Traffic Police are responsible for enforcement of traffic rules, accident investigation and road safety education. The Traffic Police is headed by a Director who is currently a Deputy Inspector General of Police. The Traffic Police Headquarters is located in Colombo where island wide accidents statistics of road accidents are also available. Each Police Division and Police Station has dedicated Traffic Police personnel.

3.7.7 Chartered Institute of Transport & Logistics

The Chartered Institute of Logistics & Transport (CILT) is the foremost body of transport professionals in Sri Lanka belonging to an international fraternity of professionals who are serving in executive positions within the sectors of transport and logistics and more specifically in supply chain management, aviation, shipping, freight forwarding, passenger transport, railway transport, traffic management and transportation planning. The Sri Lanka chapter boasts a membership of over 300 professionals holding important positions. The CILT also awards professional qualifications through accredited examinations. Its primary objectives are given as:

- Provide continuous professional development
- Enhance the recognition of the qualifications among other professional institutes and bodies
- Provide value added services to the membership”
- Create networking opportunities for members and corporate locally and internationally
- Provide a round table forum for the industries to address issues of common interests
- Influence policy formulation
- Expand/Develop a wide range of membership covering various geographical areas each sector of society, ages and gender.

3.7.8 University of Moratuwa

The University of Moratuwa located just 20 km south of Colombo Fort, is the foremost technical university in Sri Lanka. It also has the only department of study exclusively for transport within the university network in Sri Lanka. The Department of Transport & Logistics Management, awards the 4 year Bachelors Degree in Transport & Logistics Management. It has an annual
intake of 50 students. The first batch of such students will enter the market in 2010. In addition the Department of Civil Engineering offers Masters level taught courses in Highway & Traffic Engineering as well as in Transportation. The university is also active in transport research and consultation for industry. It also has several special purpose software programs that have been developed for local use specially in traffic forecasting.

3.8 Transport Administration Taxonomy

In order to understand the different roles played by the institutions referred to above, the following taxonomy illustrates the different institutions which are responsible for different functions within the transport sectors and by mode of transport. The different functional features can be further explained as follows:

- **Policy** – the Government’s interventions as a policy to ensure the reliable and continuous provision of transport services for public consumption which will be revised from time to time depending on a government’s socio-economic outlook, technological changes, social needs and environmental concerns.

- **Planning, Implementation & Monitoring** – the government's process of observation of performance, discussion and analysis by which mobility needs will be identified and translated to reality through the improvement of existing infrastructure of services or the provision of additional or more modern infrastructure or services while taking into account other planning conditions such as physical planning and environmental limitation.

- **Regulation** – the government's process to formulate, legislate and enforce the rules by which transport activities are to be conducted or transport services to be operated. Such rules may be made within the wider framework of policy and be modified from time to time in keeping with issues that may require to be dealt with in order to improve services.

- **Fixed Infrastructure Provision** – the physical provision and upkeep of fixed infrastructure such as roads, railways, terminals, parking facilities, operational systems etc which may be provided by the State or by private providers as the case may be.

- **Service Provision** – supporting services related to transport activity, which will improve capacity of performance to complete the transport function more efficiently and in a timely and professional manner.
Table 3-15: Transport Administration Taxonomy

<table>
<thead>
<tr>
<th>Mode</th>
<th>Policy Making</th>
<th>Planning</th>
<th>Regulation</th>
<th>Fixed Infrastructure Providers</th>
<th>Rolling Stock Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aviation</td>
<td>Ministry of Ports &amp; Aviation</td>
<td>Ministry of Ports &amp; Aviation</td>
<td>Civil Aviation Authority</td>
<td>Airport &amp; Aviation Services Ltd (AASL)</td>
<td>Srilankan Airlines, Mihin Air, Private</td>
</tr>
<tr>
<td>Maritime</td>
<td></td>
<td></td>
<td>Director of Merchant Shipping</td>
<td>Sri Lanka Ports Authority</td>
<td>Ceylon Shipping Corporation, Private</td>
</tr>
<tr>
<td>Motor Vehicles (all)</td>
<td></td>
<td></td>
<td>DMT</td>
<td>RDA/PRDA/ Local Gov &amp; Private</td>
<td>Private</td>
</tr>
<tr>
<td>Railways</td>
<td></td>
<td>National Transport Commission</td>
<td>SLR</td>
<td>Provinces</td>
<td>Private</td>
</tr>
<tr>
<td>Inland Waterways</td>
<td></td>
<td></td>
<td>NTC (Inter)</td>
<td>SLTB/NCT/ PTA/ Local Gov/Private</td>
<td>Private/ SLTB</td>
</tr>
<tr>
<td>Road Passenger Transport Services (all vehicles carrying passengers by bus)</td>
<td>M/Transport74</td>
<td></td>
<td>DMT/NTC</td>
<td>Local Govt</td>
<td>Private</td>
</tr>
<tr>
<td>Para-Transit carriage of passengers for fee or reward other than buses</td>
<td>National Transport Commission 75</td>
<td></td>
<td></td>
<td>Private Providers</td>
<td></td>
</tr>
<tr>
<td>Rental Vehicles</td>
<td></td>
<td></td>
<td>NTC (Inter)</td>
<td>Private</td>
<td>Private</td>
</tr>
<tr>
<td>Carriage of Goods by Motor Vehicles (lorries)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Motorized (walking, bicycle)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

74 Assisted by the National Transport Commission & other stake holders
75 In concurrence with Province for National Plans and to give Concurrence from Centre to Provincial Plans and in association with any units assigned with the Planning Functions within the Regulatory or Service Provision bodies such as SLR and DMT.
This chapter deals with the external national socioeconomic policy and its intended interventions in the provision of transport infrastructure and services in the pursuit of such policy goals. In this respect there are two primary documents that have been examined.

The first of these examines the Ten-Year Development Framework also called Randora which is based on the Mahinda Chinthanaya Policy statement of the new government elected in 2005. This is followed by a discussion on the revision of these policies and new policies under the Mahinda Chinthanaya 2010 document that has been released but is yet to be incorporated as a government publication.

The Government has announced its economic policy in clear terms through the “Mahinda Chinthana” with a view to stabilizing the economy, promoting sustainable economic growth reducing unemployment and poverty while ensuring a higher quality of life for all. In the Mahinda Chinthanaya Ten Year Development Framework 2006-2016 it has been proposed to achieve a growth target of 8% per annum during the period 2006-2009 and over 10% per annum during the period 2010-2016.

During the three year period ending 2007 with the completion of two years of the Ten Year Development Program, Sri Lanka’s GDP grew at an average rate of 7% per annum and the current and future forecast looking better with the cessation of conflicts in 2009. The growth in the context of an average population growth rate of 1.1% had the effect of raising the per-capita GDP to US$ 1,617 in 2007- a level that maintained Sri Lanka’s position at the top of the South Asian Countries. This achievement also elevated Sri Lanka’s position as a middle income country at the end of 2007.

4.1 Ten Year Development Framework (Mahinda Chinthanaya 2005)

The Policy of the Government in terms of the ‘Mahinda Chinthanaya’ has been translated to an implementation strategy through the Medium Term Expenditure Framework (MTEF) for the period 2006-2008. The MTEF perspectives are based on allocating resources to achieve the Millennium Development Goals (MDGs) and targeting an economic growth rate of 6 to 8 percent. It emphasizes on programs to eradicate poverty, remove regional disparities of socio economic development, to empower the poorest and raise the living standards of all segments of the society.
Many sectors of the economy showed dynamism during the period 2005-2007. The total agriculture grew at 4.8% per annum with domestic agriculture growing at 5.8% annum ahead of the 2.2% recorded for plantation and minor crops. The biggest increase in output was recorded in the manufacturing sector amounting to about 7.9% per annum. The major part of this growth consisted of export oriented garments and wearing apparels production. The service sector too showed a similar trend recording 7.4% growth per annum during the period 2005-2007. The most dynamic sub sectors were trade, transport, banking and insurance and posts and telecommunications. The service sector has been estimated to have contributed 60% percent of the growth of GDP during the period 2005-2007, while manufacturing and agriculture contributed 28% and 12% respectively.

Table 4-1: The Structure of GDP 2005-2007 (at constant prices)

<table>
<thead>
<tr>
<th>Sector</th>
<th>GDP (Rs. Millions)</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tea</td>
<td></td>
<td>27,544</td>
<td>26,985</td>
<td>26,437</td>
</tr>
<tr>
<td>• Rubber</td>
<td></td>
<td>4,773</td>
<td>4,993</td>
<td>5,379</td>
</tr>
<tr>
<td>• Coconut</td>
<td></td>
<td>27,204</td>
<td>28,933</td>
<td>30,053</td>
</tr>
<tr>
<td>• Minor crops</td>
<td></td>
<td>9,966</td>
<td>10,187</td>
<td>10,706</td>
</tr>
<tr>
<td>• Paddy</td>
<td></td>
<td>36,541</td>
<td>37,608</td>
<td>35,217</td>
</tr>
<tr>
<td>• Other Agriculture</td>
<td></td>
<td>135,823</td>
<td>148,425</td>
<td>157,797</td>
</tr>
<tr>
<td>2. Manufacturing</td>
<td></td>
<td>545,981</td>
<td>590,298</td>
<td>635,195</td>
</tr>
<tr>
<td>3. Services</td>
<td></td>
<td>1,153,839</td>
<td>1,243,119</td>
<td>1,331,602</td>
</tr>
<tr>
<td>• Trade</td>
<td></td>
<td>489,589</td>
<td>523,921</td>
<td>555,345</td>
</tr>
<tr>
<td>• Transport &amp; Communication</td>
<td></td>
<td>230,597</td>
<td>259,921</td>
<td>286,779</td>
</tr>
<tr>
<td>• Banking &amp; Insurance</td>
<td></td>
<td>163,863</td>
<td>177,817</td>
<td>193,375</td>
</tr>
<tr>
<td>• Other</td>
<td></td>
<td>269,790</td>
<td>281,835</td>
<td>296,103</td>
</tr>
<tr>
<td>Sri Lanka Country GDP</td>
<td></td>
<td>1,941,671</td>
<td>2,090,548</td>
<td>2,232,387</td>
</tr>
</tbody>
</table>

The agriculture sector is expected to grow by 4.9% per annum during this period. The targeted growth rates for industry and services sectors are 8.6% and 9% per annum respectively. As a result both unemployment and poverty are expected to drop by 2% by 2011. In order to achieve

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76 Source: Central Bank of Sri Lanka, 2007
these objectives a carefully planned economic strategy is to be implemented covering all the sectors of the economy.

The salient feature of economic performance in the period 2005-2007 is the government’s success in simulating a massive increase in public investment. The Government capital expenditure in 2007 was about 2.1 times higher than in 2005. One of the major contributory factors was the successful procurement of foreign financing on a substantial scale.

There has been an increase in expenditure in favour of roads and transport, power, poverty reduction and social safety in line with the declared policy of the Government to improve economic infrastructure facilities and livelihood as a basis for rapid economic growth. However, the growth of human resources, agriculture and housing and construction has not been neglected.

With the intention of keeping the Ten Year Development Framework 2006-2016 on track in its medium term, the Public Investment 2008-2011 document reviews the achievements under the framework thus far and assesses the strategic interventions necessary to achieve targeted economic growth together with financial investment plans for each sector.

The main achievements with respect to the transport sector found in the program are discussed in the following sections.

4.1.1 Roads

The road sector achievements for this period have been listed as follows:

- National Thoroughfares Act, No. 40 of 2008 for planning, designing, construction, maintenance, improvement and protection of all roads was enacted by the Parliament in December 2008.
- A separate ministry named as "Ministry of Road Development" was created to look after the development of local authority roads and rural roads.
- Although there were plans to establish a dedicated fund with a view of providing financial support for the maintenance of the existing national road network under the name Road Maintenance Trust Fund (RMTF) in 2006 it did not materialized as planned due to many reasons. However, Treasury provides annual maintenance allocation under RMTF.

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77 Department of National Planning, 2008
In the Eastern province the construction of the longest two lane bridge (396 meters) in Sri Lanka at Kinniya on Batticaloa Trincomalee Thirukondiadamadu Road has been completed and open to traffic by replacing a ferry. The bridge at Manampitiya in Polonnaruwa district which served as a rail cum road bridge resulting in severe delays to both road and rail passengers was replaced with a new highway bridge at Manampitiya (302 m) under JICA grant assistance. Also, the construction of a new highway bridge was completed at Oddamavadi and open to traffic.

The Mahanama Bridge in Matara constructed under Kuwait assistance and several other bridges such as Seenigama, Akurala, Magalle, Goviyapana, and Weligama in the Southern Province, Periya Kallaru, Kodadi Kallaru, and Komari in Eastern Province were completed under the Japanese funded Tsunami Affected Area Rehabilitation Project (TAARP).

Construction work to replace ferries with bridges were completed and opened to public at Hirana, Molkawa, Weralugastotupola and two bridges on Lathpandura Molkawa in the Western Province under Austrian funding.

Construction of a landmark Bridge (160 m) on Pottuvil- Panama Road at Arugam Bay which is considered one of the world famous surfing locations in Ampara District in Eastern Province was completed under a grant of USAID through TAARP.

Mannar Bridge and causeway (157 m & 3.14 km) which connects Mannar Island to the mainland on Medawachchiya Mannar Talaimannar Road in the Northern Province were constructed under JICA grant assistance and opened to traffic in March 2010. This road section is considered to be a part of the Asian Highway.

The flyover at the Railway crossing at Kelaniya was completed to reduce the traffic congestion on the Colombo-Kandy road under the UK Funded Steel Bridge Project in April 2008. Under this project another two flyovers were constructed at Nugegoda Junction on the High Level Road and at the Dehiwala Junction on Galle Road. In addition 200 bridges are to be completed throughout island.

Three more flyovers across railway lines at Pannipitiya, Orugodawatta, and Gampaha were constructed under GOSL funds.

Road Network Improvement Project is funded by both ADB and JBIC and it consists of rehabilitation of 345 km of roads and improvements to 47 bridges. The ADB component (loan amount US $ 80 million) and the RNIP consists of the rehabilitation of 274 km of roads and improvements to 42 bridges. Under JBIC funding Gampola – Nuwara Eliya and Gampola Nawalapitiya roads (71 km) and Ramboda pass tunnel were completed.
• A programme for the rehabilitation of 727 km of estate roads was started in 2007 to increase accessibility and mobility in the plantation sector. About 170 km of road has been completed spending Rs. 303 mn and the remainder to be completed by the end of 2008.

• 856 kilometers of provincial roads in the Uva, North Central, Western, North Western, Central and Sabaragamuwa provinces have been completed under ADB and WB assistance.

• Provision for the improvement of rural roads under the "Maga Neguma" Programme has been doubled from 2006 to 2008.

• Under the "Maga Neguma" programme metalling and tarring was done for 1855km of rural roads and 2476km have been concreted during the period from 2005 to December 2009. In 2009 they have commenced a project on concrete block paving for rural roads on experimental basis.

4.1.2 Railway Services

The achievements of the period 2006-2007 have been identified as follows:

• One hundred (100) new carriages and 15 diesel multiple units have been added to the service to improve the railway operation.

• Replacement of the new five bridges at Ja-Ela, Seeduwa, Kelaniya, Pinwatta, and Kalutara have been completed with foreign assistance.

• The operating speed on the Eastern Railway line has been increased up to 65 kmph between Maho and Batticaloa, and Galoya to Trincomalee. Valachchenai to Batticaloa has been increased up to 80 kmph.

• Initiatives have been taken to build a new railway line from Matara to Kataragama.

• Rationalization of passenger fares started from June 2008.

• Introduction of a new timetable based on passenger requirements.

4.1.3 Bus Transport (State and Private)

The achievements of the period 2005-2007 have been identified as follows:

• Sri Lanka Transport Board Act No. 27 of 2005 was implemented. It supported the introduction of a proper management system covering many areas. All employees were re-appointed under this Act. Relevant amendments were also added.
734 new buses were distributed among the SLTB depots and 270 new engine kits were procured and the fleet expanded by 270 buses of which 200 buses were put into operation in rural areas in 2008.

After the implementation of the SLTB Act No 27 of 2005, professionally qualified officers were selected and appointed to important posts.

Over 18,000 buses are operated by the private sector. Among them 35 per cent are over 10 years old. The Re-fleet Subsidy Project was implemented in 2007 to improve the quality of bus service by providing a subsidy for replacing old buses with new buses and to strengthening especially the rural transport services.

The "Nisi Seriya" night time bus service, "Sisu Seriya" school bus service and “Gemi Seriya” to provide transport facilities in uneconomic remote areas were introduced in 2005 and expanded every year thereafter.

Projects of the following Provincial Road Passenger Transport Authorities can also be considered.

4.1.3.1 Southern Province Passenger Transport Authority

The SPRTA has spent Rs 176 million over the last 10 years for the repair and rehabilitation of its bus terminals in the Southern Province. A total of 17 such terminals have been thus rehabilitated utilizing funds allocated by the provincial council. The Province Specific Development Grant (PSDG) allocated through the Finance Commission as well as the Criteria Based Grant. Rs 27 million has been allocated for 2010 for civil works in a total of 11 bus terminals.

4.1.3.2 Western Province Passenger Transport Authority

Similar to the Southern Province, the Western Province has spent around 155 million Rupees on the repair and rehabilitation of 11 bus terminals over a period of 4 years. These funds are also sourced through the PSDG, Criteria Based Grant and the Provincial Allocation.

4.1.4 Aviation

In the aviation sector the following progress has been noted.

- A total of 5 million air passengers were served at the Bandaranaike International Airport (BIA) in 2007, a 4 percent increase over the number of passengers in 2006.
- BIA development project Phase (II)- Stage (I) has been completed and Stage (II) has been commenced.
- A new passenger terminal and boarding bridges were added to the service.
The basic initiatives have been taken to build a second international airport.

The management of Sri Lankan Airline was regained by the government of Sri Lanka.

### 4.1.5 Revised Medium Term Perspective 2008-2011

The revised sector investment program for the four year period 2008-2011 provides for Rs 579,343 million with 88.5 percent of these allocations for on going development projects. Of this amount roads consume 66.2 percent of funds with ports are allocated Rs 105,524 or 18.2 percent of the funding. Bus transport is provided only 3%, while aviation is provided 3.8% and railways is proved with 8.4%.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus Transport</td>
<td>2,945</td>
<td>2,958</td>
<td>6,873</td>
<td>6,720</td>
<td>19,496</td>
</tr>
<tr>
<td>Railway</td>
<td>13,289</td>
<td>9,439</td>
<td>6,450</td>
<td>9,104</td>
<td>38,282</td>
</tr>
<tr>
<td>Ports</td>
<td>18,602</td>
<td>25,016</td>
<td>28,596</td>
<td>19,680</td>
<td>91,894</td>
</tr>
<tr>
<td>Aviation</td>
<td>608</td>
<td>6,711</td>
<td>5,810</td>
<td>5,411</td>
<td>18,540</td>
</tr>
<tr>
<td>Roads</td>
<td>63,714</td>
<td>79,186</td>
<td>92,090</td>
<td>109,774</td>
<td>344,764</td>
</tr>
<tr>
<td>Sub Total</td>
<td><strong>99,158</strong></td>
<td><strong>123,310</strong></td>
<td><strong>139,819</strong></td>
<td><strong>150,689</strong></td>
<td><strong>512,976</strong></td>
</tr>
<tr>
<td><strong>New Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railway</td>
<td></td>
<td>1,011</td>
<td>3,950</td>
<td>5,350</td>
<td>10,311</td>
</tr>
<tr>
<td>Ports</td>
<td></td>
<td>4,230</td>
<td>4,650</td>
<td>4,750</td>
<td>13,630</td>
</tr>
<tr>
<td>Aviation</td>
<td></td>
<td>301</td>
<td>1,550</td>
<td>2,075</td>
<td>3,926</td>
</tr>
<tr>
<td>Roads</td>
<td>4,000</td>
<td>14,000</td>
<td>20,500</td>
<td>38,500</td>
<td></td>
</tr>
<tr>
<td>Sub Total</td>
<td></td>
<td><strong>9,542</strong></td>
<td><strong>24,150</strong></td>
<td><strong>32,675</strong></td>
<td><strong>66,367</strong></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>99,158</strong></td>
<td><strong>132,852</strong></td>
<td><strong>163,969</strong></td>
<td><strong>183,364</strong></td>
<td><strong>579,343</strong></td>
</tr>
</tbody>
</table>

### 4.2 Mahinda Chinthanaya 2010

The recent most policy statement of His Excellency the President of Sri Lanka compiled as the election manifesto for the re-election in January 2010 contained further policy guidelines on the transport sector which can be summarized as follows:

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78 Ministry of Finance, Department of National Budget, Public Investments (2008-2011)

79 Mahinda Chinthanya 2010
4.2.1 Maritime

To develop Sri Lanka as a dynamic maritime hub centered on the Hambantota Port which is to be made operational by November 2012. It is expected that 10,000 ships will call over at this port leading to revenue earnings of over Rs 50 bn per year. The South Port in Colombo is also to begin operation by this time with the ability to attract larger vessels.

4.2.2 Aviation

In creating an Aviation Hub it is stated that steps will be taken to continue the modernization of the BIA at Katunayake to remain competitive in the region. Apart from the construction of a 2nd international airport at Mattala in Hambantota District it is expected that some of the aerodromes across the country such a Palali (Jaffna peninsula), Amparai and Ratmalana will be developed as domestic and regional airports for local and regional tourism and business promotion.

4.2.3 Roads

A length of 4,000 km of national roads is to be rehabilitated over the next 6 years. While it is noted that construction work of 370 bridges has been completed, a further 116 bridges are under construction. The opening of the Southern and Katunayake Expressways and flyovers and vehicle control through signal lights at busy junctions to reduce road congestion and accidents in the City of Colombo and suburban areas.

Special attention is pledged to develop roads in the up-country and the north during the next 6 year period as well as all 16,500 km of provincial roads.

4.2.4 Rural Transport

As a step towards providing the villages in Sri Lanka with basic facilities to ensure that urban migration is mitigated, all roads in the villages in Sri Lanka are to be concreted in an effort to ensure a high level of mobility between rural and urban areas. The night bus service, early morning bus service as well as “Gami Sariya” bus service that are currently operational in rural areas, are to be strengthened and continued, thereby reinforcing the confidence of passengers in these services.

4.2.5 Public Transport

The manifesto also reaffirms the importance of public transport. It stresses the need to create a well regulated and modern transport service especially the use of information technology. A
transport zone is to be established integrating all bus terminals in Colombo with the Fort railway station to provide effective and efficient services to hundreds and thousands of passengers.

4.2.6 Railways

In the railways progress in anticipated in extension of the coastal rail track up to Beliatta, the first extension since independence; the re-commencement of Yal Devi to Kankesanthurai and to Talaimannar by 2011 and extension to India thereafter after negotiations with India. A Luxury train service between Colombo and Katunayake International Airport is planned with park and ride facilities at many stations. A railway based ICD is also to be constructed for container transportation, while goods transportation will be a key objective of the future train services.

4.2.7 Urban Transport

The feasibility study for constructing a metro rail system in the City of Colombo and in the suburban areas as well as the introduction of electric trains in the capital city as the main mode of transport is intended to increase the efficiency and productivity thereby improving the environment and public health.

The feasibility study to operate a BRT special bus service in the City of Colombo has already been completed and this service is expected to be implemented by end 2010. Special tax relief and VAT relief is to be granted to private bus operators while steps will be taken to address the problems faced by them especially issues in relation to leasing of vehicles, the purchases of spare parts and the new purchase of vehicles.

4.2.8 Bus Transport

In terms of bus transport the manifesto affirms that the maintenance of a healthy relationship between SLTB and private bus operators is a very important aspect in public passenger transport service. It is stated that the small and medium scale entrepreneur characteristics of the bus service would be protected while strengthening the state owned bus fleet. The introduction of timetable to buses across the country as well as increasing school bus transport to 1,500 services from the current 634 services is intended while granting insurance scheme and pension schemes for drivers and conductors of both SLTB and private bus service.

4.2.9 Three Wheelers

A social insurance scheme for three wheeler owners and provision of designating parking areas as well as tax relief and soft loans to encourage the introduction of environment friendly three wheelers have been identified.
5 SECTORAL TRANSPORT POLICIES

In this chapter primary policies available for the different sectors are reviewed. In this respect the reference for land transport will be the Land Transport Policy (2009) and that for the aviation sector the proposed draft Policy on Aviation which has been under preparation for some time.

The chapter will also include brief discussions of the salient policy principles for the different aspects of transport provision in the sub-sections under each policy document. These provide the over riding rationale for the government’s policy framework in the transport sector and is important for understanding the broad policy principles that govern the provision and regulation of transport. The need for reform of these sectors will also be discussed here in the context of reforms that have been proposed in the respective policy reports.

There are three specific policy proposals that have been formulated for land transport, roads and for aviation by the respective ministries based on the Mahinda Chinthanaya policies set out in 2005.

5.1 National Policy on Land Transport (2009)

The National Policy on Land Transport has been formulated by the Ministry of Transport and approved by the Cabinet of Ministers in 2009. It is the only proper policy document since 1992 which set out explicitly, the interventions of Government in ensuring that existing and potential mobility needs within the country for passengers and goods transport are satisfied safely, cost effectively and causing least impact on the environment and resources. Furthermore, to ensure that all citizens both individual and corporate are provided with adequate levels of access to basic needs such as, to places of employment, markets and to public services etc.

These are further elaborated as to:

- Ensure the adequate availability of transport infrastructure and services required to support the goals of sustainable economic growth, and social development at all times and across all communities.
- Ensure optimum utilization of existing resources in terms of transport infrastructure and equipment across all networks, modes and users.
- Ensure that a minimum level of access to basic services is provided to all segments of the society.
- Ensure that users of transport systems are provided with reasonable choices of modes of transport and access to up to-date information to make informed decisions.
• To manage overall vehicle fleet and usage, especially to discourage the number of people commuting in single occupancy vehicles in urban areas by improving public transport and other measures.

• To reduce social-exclusion by providing appropriate transport facilities, especially for the improved mobility of the elderly and the differently-abled.

• Improve safety and security for all users of the different transport systems.

• Ensure competitiveness between and among modes and providers while protecting the interests of the Government in providing State-owned transport services and by giving confidence to the private sector to invest in and to improve areas of the transport sector wherein private investments are solicited.

• Ensure the systematic infusion of capital in to the development of new transport infrastructure through Government funding as well as private investment or the establishment of a transport fund or a levy of a toll or tax on fuel.

• Ensure the continuity of systematic planning and research for the continual development and modernization of the transport system in order to keep pace with the requirements of the global economy, technological advancement and the national socio-economic policy.

• Ensure the availability of human and physical resources needed for the, implementation of these plans.

• Ensure that all human resource inputs to transport sector are qualified and competent.

• Introduce the legislative amendments and administrative arrangements that are required to support this policy.

• Ensure the integration of land use development, employment policies and use of Information & Communication Technology to reduce the demand for travel.

5.1.1 Policy Principles

The National Policy on Land Transport is based on the following principles:

5.1.1.1 Economic Principles

The government will take pro-active steps to identify the quantity and quality of transport services that would adequately meet existing and potential demand for movement of goods and passengers that would support a vibrant economy and a contented society. It will take all possible steps to ensure that such services are made available to the users at the desired level of service and at the least cost to the socio-economy.
5.1.1.2 **Social Principles**

Transport will not be considered purely as an economic commodity. It will also be evaluated on its social impacts particularly in terms of equity and equal accessibility for all people. This policy aims at ensuring a minimum level of mobility required to meet the right of every citizen to have access to their basic needs. Furthermore, it will pursue the provision of transport services that will promote the equitable socio-economic growth across all geographical boundaries and social segments.

5.1.1.3 **Regulation**

It is the view of the Government that the transport sector should be considered as a service sector of the highest importance to both economic and social development of the country. It considers that such a sector cannot be left entirely to market forces at the present stage of social and economic development of the country. The Government therefore wishes to take all steps to ensure that the entity of this sector will be regulated in order to fall in line with other service sectors such as health and education. Therefore while the transport industry will be encouraged to develop according to market forces, regulations will be effected by the relevant regulators with respect to matters pertaining to the safety, quality of service, employment standards, environmental norms, fair competition and pricing as may be appropriate for different modes of transport.

5.1.1.4 **Modal Preference and Choice**

The policy of the Government is to encourage the use of public transport, high occupancy vehicles and non-motorized transport. It will seek to influence modal shift from road to rail transport and from private modes to higher occupancy modes using regulatory and fiscal measures.

The Government will take steps to provide the public the widest possible choice of different modes of goods and passenger transport that would be consistent with the country’s objectives of optimizing land and road space use, conservation of the environment and energy, achieving cost effectiveness and ensuring the affordability for users.

5.1.1.5 **Competition**

As far as possible services provided by different modes of transport shall be complementary in nature. Competition within and between modes of transport would be allowed on cost to the user and quality of service provided. The Government will create an appropriate competitive environment wherein these market forces will be used to guide the transport system to provide the required efficient and reliable services without creating negative impacts of wastage of resources and compromise of safety and quality of services.
5.1.1.6 **Land Use Principles**

Transport services will also take into account the nature of existing land use in the provision of the appropriate modes of transport. It will also respond by planning future transport systems according to the requirements of future town and regional development plans that are published. The Government will also take steps to ensure that all such land developments would not impede the overall transport function including the deterioration of mobility in transport. As such it will require Transport Impact Assessments to be carried out for all land use developments which will have a significant impact on the overall transport networks. It will also require comprehensive Transport Capacity Assessments for large scale development plans including town development and regional development.

5.1.1.7 **Principles of Investment**

Since the growth of the economy and social development is directly dependent on the transport sector, the Government will ensure that a minimum required level of resources would be invested regularly in order to provide for the sustainability and growth of the sector. Capital investment of 1 ½ % for the next 5 years and 1% GDP thereafter will be met. In terms of investment, the Government will avoid duplication of infrastructure.

It is the policy of the Government to make required transport infrastructure and services available to satisfy the diverse public and corporate needs. The Government will allow investment opportunities to private sector in all areas of transport infrastructure and service provision under regulations that would guide such investments, other than in areas in which the Government would have a strategic interest or reason. Thus the Government ownership in the strategically important enterprises in the transport sector will be continued. The Government while retaining its present infrastructure and areas of service provision will continue to invest in such operations in order to reduce monopolistic or oligopolistic behaviors in the market. It will also invest in areas where private sector is unwilling or where the market fails in delivering the desired objectives.

The government will take a leading role in transport infrastructure investments. Regular allocation will be provided for periodic maintenance and rehabilitation of assets. In addition, funds will be provided for procurement of new assets for extension of network and future development. The decisions regarding investments will be made on the evaluation of cost–benefit analysis. All procurements will be made on adhering to competitive bidding procedure in a transparent manner, except, in special cases. In every effort will be taken to maximize the contribution for the development of local industry and technology in obtaining foreign investment. All procurement plans would contain necessary mechanisms to ensure sustainability of investment. Especially, such plans should conform to proper maintenance and repair requirements.
5.1.1.8 **Transport Service Pricing**

In the case of public transport, the Government will intervene by regulating fares. The respective national regulatory authority will periodically determine viable fare levels, which is the fare level that will enable an operator to recover his return on investment at standard levels of inputs and efficiency. The respective national regulator on considering the affordability and external impacts of levying such viable fare will if so needed determine a regulated fare in consultation with the Ministry of Transport & the Treasury. Where the regulated fare is set lower than the viable fare, the shortfall will be provided to the operator as a compensative payment by the Government.

If so required additional compensatory payments will be offered to operators of Socially Obligatory Services such as rural un-remunerative services and school services where special concessions are provided to users or minimum service levels are required.

Moreover, differential fares for modes of transport may be set in order to achieve modal shifts that are desirable for economic, social or environmental reasons.

5.1.1.9 **State Railway Operations**

The Government intends to develop the railway sector giving the highest priority. The government will explicitly seek shift of passengers and goods transport from road to rail, by making rail transport attractive, comfortable, faster and affordable. The Sri Lanka Railways while continuing to be operated as a Government entity will be committed to reform in order to improve its efficiency and capabilities. In this respect the government will seek participation of the private sector where appropriate, to develop selected business areas such as property development, multi-modal terminals, Inland container terminals. This will be attempted while preserving SLR’s State sector identity and not losing its primary service orientation.

5.1.1.10 **State Bus Operations**

The Government will also continue to operate bus services through the Sri Lanka Transport Board (SLTB). The primary objective is to reduce undesirable attributes in a sub-sector largely dominated by the private sector, for which purpose it will aim at retaining between 25% and 40% of the supply share of bus services provided. For this purpose, it will be offered the right of first refusal for 40% of the scheduled capacity on any route or service or group of routes, wherein such percentage does not exist at present. The SLTB will necessarily have to be financially independent and free of Treasury funding other than earned payments for Socially Obligatory Services.
5.1.1.11 **Passenger Terminals & Stops**

The Government in consultation with the relevant authorities initiates the planning of a network of modern passenger terminals involving rail and road transport modes. This exercise will be aimed at improving facility of transfers between modes especially with respect to routes and services coming under the purview of National Transport. Special emphasis will be made to develop multi modal facilities in urban and suburban areas which will enhance seamless travel such as park and ride facilities integrated with public transport.

Steps will also be taken to provide facilities for over-night stay for public passengers at major terminals. Government will also make investment in Park and Ride facilities at such terminals and new locations.

The Government will intervene to facilitate financial and technical assistance to develop such terminals using both State and private sector funding, provided that such developments are in conformity with the standards set out by Government, taking into account the requirements for safety, information and convenience to passengers and other users.

In order to ensure the smooth functioning of such terminals, compliance of standards, resolution of operational issues and continuing development of facilities, each such terminal will have a Passenger Terminal Consultative Committee which will include in addition to the manager of the terminal, representatives of the regulators of services, operators and users of that facility.

The Government will also take steps to improve road side stops and facilities provided therein. This will include improvement in quality of wayside refreshing centers for long distance travelers including bus passengers.

5.1.1.12 **Logistics**

Considering the potential of Sri Lanka as a global and regional hub in the supply chain, every endeavor will be taken to support the efficient functioning of the logistics industry by connecting the ports, airports, markets, consumers and producers whereby waste, double handling and cost duplications can be avoided.

Therefore, the Government will intervene in the study and planning of transport modes, locating of warehousing and influencing the distribution functions in the supply chain process. It will also assist private sector development of such identified locations by means of fiscal and non-fiscal incentives. Furthermore assistance will be given for modernization of freight handling through improved information communication technologies, cargo handling equipment and specialized vehicles. Special emphasis will be given to ensuring multi modal access to all seaports, airports and dry ports.
The Government will introduce regulation to ensure the safety and system efficiency of freight movements with respect to National Transport.

5.1.1.13 **Environmental Principles**

The Government will pay particular attention to the alarming deterioration of the quality of our environment caused by transport activity. It will take steps to minimize the damage to the environment especially with respect to air quality, noise and impacts to the flora and fauna. It will therefore systematically upgrade to transport technologies that are less polluting and also work towards reducing excessive travel particularly through environmentally sensitive areas.

The Government will also take all steps to encourage the patronage of modes which are environmentally less polluting. It will also take steps to gradually reduce the impact of such pollutants on passengers of public and para-transport, other road users and those in the vicinity of transport corridors.

5.1.1.14 **Energy**

It is the priority of the Government to take steps to reduce the dependency on petroleum fuels for its mobility requirements. This would be in the form of actively promoting the use of less energy consuming modes of transport- with an emphasis on increasing the share of users on public transport, reduction of unnecessary travel, improved vehicle technology and better management of transport systems including that of the road network and public transport network.

The government will encourage through fiscal and non-fiscal measures, the conversion and adoption of vehicles from fossil fuels to alternative fuels that are less polluting.

The Government will re-structure the present tariffs regime in order to discourage the importation and use of energy inefficient vehicles.

The Government will also take measures to encourage the use of non-motorized modes of transport where appropriate.

5.1.1.15 **Use of Technology & Research for modernization**

The Government will encourage innovation and modernization of the transport sector, using modern technology to ensure greater passenger convenience, improved management and sustainable transport systems. This would include improvements to standards of vehicles, passenger terminals, safety and security systems, control systems that improve reliability etc. Special and urgent attention would be given to the development of ICT based solutions. Towards this end there would be an effort to support the research, development and adaptation of such technologies to the needs of the transport sector in Sri Lanka.
5.1.1.16  **Safety**

The Government takes note of the heavy social and economic burden to the country due to transport accidents, especially road traffic accidents. In order to speedily reduce this it will set standards for vehicles, roads and other infrastructure, operating practices, training methods and testing procedures and enforcement techniques. Moreover attention will also be given to increasing public awareness and education as well as the use of modern technology in enforcement and monitoring of safety concerns.

Steps would be taken to identify hazardous goods and to restrict movements by road transport through built up areas and to encourage the transfer of such movements to safer modes such as the railways.

5.1.1.17  **User Satisfaction**

A high degree of attention would be placed on obtaining feedback from consumers of transport services. This shall be a primary task of the regulators of the respective modes of transport. Such user satisfaction surveys will be made public from time to time in an effort to make all agencies involved in the provision of transport work towards meeting the end users expected level of service which will be bench marked. Public consultation will also be facilitated in transport sector development projects to ensure user involvement in planning and design stages. Provision of up to date and real time information will be a priority.

5.1.1.18  **Persons with Special Needs**

Transport facility design and vehicle design for public transport will gradually be converted to compliance for access of people with special needs. Special transport services will also be designed after appropriate study. Steps would be taken to provide priority seating in public transport facilities and priority vehicle parking for persons with special needs.

5.1.1.19  **Concessionary Travel**

The Government will continue to provide School Season Tickets at concessionary rates. It also expects to introduce discounted tickets to persons with special needs and for senior citizens.

5.2  **Highways Policy**

The National Road Policy (2002) developed by the Road Development Authority gives general objectives of the road sector as to:
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a) Promote the on-going economic development of the country, by taking into consideration the present and future socio-economic development plans and policies, thereby improving the quality of the people.

b) Facilitate greater mobility, shorter travel time and provide easy accessibility with improved safety for the people.

c) Adequately meet the transport needs of the country, both passengers and freight transport taking into consideration the current and projected future transport demand and such projections shall accommodate restraint strategies.

d) Improve the quality of roads, by using cost effective and innovative techniques of design, construction, maintenance and rehabilitation.

However, specific application of these policies in project formulation or in investment planning cannot be observed at present. The budgetary process also does not include assessment of objectives or outcomes of proposed projects in order to determine the degree of subscription of a project for which funding is sought, to these policies.

5.2.1 National Road Master Plan (2007-2017)

There are a number of lead projects identified under the Pro-Poor Pro-Growth and Regional Development strategy of the Mahinda Chinthanaya, which has a number of road projects through which there are investments intended for roads and bridges. The only comprehensive strategic plan that is currently available is the National Road Master Plan for 2007-2017.

The total cost of the 11 year National Road Master Plan developed in 2006 is estimated at Rs. 670 billion or an average annual requirement of Rs. 61 billion. The NRMP states that ‘On average over the last five years, International Finance Institutions (IFIs) have contributed about 50% to road sector allocations of the Government”. It recommends that there is limited scope and merit for the financing of the NRMP to depart from the pattern of road financing that has evolved over time.

Also, NRMP 2007 -2017 describes the financing strategy as follows, “the financing strategy for the NRMP rests on four pillars, including a) long-term loans from IFIs, b) allocations from the capital budget for investments, c) the RMTF initially for routine maintenance operations and d) private sector financing for commercially attractive highway projects.”

GOSL is still trying to formulate a mechanism to establish and maintain dedicated fund (RMTF) to provide funds required to maintain the road network annually. It is therefore a daunting task to seek funds from private sector to finance highway projects. Sri Lanka has failed in several such occasions and it may be possible to attract private sector for the operation and maintenance
operations of selected highway infrastructure projects. Therefore, it is imperative to address the financing issues correctly in the future revision/update of NRMP which is due in 2010.

5.3 Aviation Policy

The aviation policy which has been developed by the Ministry of Ports and Aviation has identified five areas of intervention as set out below:

5.3.1 Safety

The Government of Sri Lanka is to ensure that the Civil Aviation Authority (CAA) is properly structured, equipped and adequately resourced to guide the industry to maintain and improve safety standards and best practices through the growth and technological challenges of the twenty-first century.

Some of the key interventions in the pursuit of the above are:

- Strengthen the capacity of the Civil Aviation Authority (CAA) of Sri Lanka
- Updating the regulatory powers and enforcement provisions in the applicable aviation legislation to ensure that they support effective management of future safety risks, including the necessary powers to deal decisively and properly with operations that do not meet safety standards.
- Implement an aviation disaster management plan in coordination with the relevant authorities responsible for national disaster management;
- Develop a coordinated national air traffic management platform by CAA, AASL and SLAF, having due regard to both the safety of traveling public and state defense requirements, which are sensitive to national security;
- Retaining Airport & Aviation Services (SL) Ltd (AASL) as a State owned company which accords first priority to aviation safety.
- Providing state of the art technological applications that offer safety and efficiency for air traffic communication, navigation and surveillance in compliance with the Regional Air Navigation Plans;
- To use of Sri Lanka airspace as much as possible for commercial, training and recreational use of Civil Aviation with due regard to national defense requirements.
- Implement National Screener Certification Programme (NSCP) in conformity with NCASP to certify all personnel involved in aviation security screening process including personnel responsible for supervision or management;
- Establish and maintain a regulated air cargo agents scheme, creating a secure chain of custody for cargo from the consignor to the aircraft for efficient and effective air cargo operations in Sri Lanka;
• Provide better information to the traveling public about screening process with appropriate signage;

5.3.2 Develop aviation sector to be a strong contributor to the National Economy

A holistic systematic approach that collectively integrates people, information, technology, facilities and services in relation to airport, airlines, air navigation services and required human resources is needed to develop the industry and to face its future challenges.

The interests of the travelling public and other economic activities that rely on the aviation sector are to be promoted and safeguarded. Through this policy, the Government of Sri Lanka is to provide the necessary strategies for the aviation sector, recognizing the long term contribution the aviation industry can provide for the economic prosperity through planning and encouraging investment in the industry.

In this pursuit the Government of Sri Lanka is expected to,

• Continue the liberalization of air services arrangements for passenger, cargo and mail services with a view to harness the economic, trade and tourism benefits that flow from opening up international aviation markets resulting in a strong aviation sector with wider connectivity;
• Ensure the capacity available to Sri Lanka registered international airlines in terms of the Air Services arrangements remain ahead of foreseeable demand to enable the Airlines to plan for the long term growth of the Sri Lanka aviation market;
• Permit private local airlines to participate in the operations of International Passenger and Cargo Air Services under the existing and/or future air services arrangements;
• Assess the feasibility of foreign investments, or private public partnerships in the development, operation and maintenance in the local aviation sector for airports, airlines,, establishing maintenance and manufacturing organizations and training centers etc….and determine the conditions under which such investments be permitted;
• Encourage multiple Ground Handling Agents and Catering Companies at Sri Lanka’s Airports;
• Develop all domestic aerodromes to promote domestic aviation.
• In the development of airports, the need for integrating such facilities with other modes of transport rail, road or sea (multimodal transport) would be given high priority.
• A domestic terminal will be established at Bandaranaike International Airport to link other domestic aerodromes.
• Develop a second international Airport with a domestic terminal.
• Develop Colombo Airport Ratmalana as a regional Airport.
• Consider options to help address the burden of regulatory charges, including charges on the general aviation sector;
• Ensure the airline industry remains competitive in line with the provisions of the applicable consumer protection framework in the conduct of its business;

5.3.3 Investment and development of Aviation Infrastructure

Air Transport is considered as an integral part of the transport network of the island, planning and development of airports cannot be done in isolation and in a haphazard manner. Therefore, the planning and management of airport development is required to bring in the expert analytical knowledge on the available resources.

In this respect some of the interventions proposed by government include:

• In the development of new airports or expanding the existing airports, the Government will ensure that there will be linkage with the parallel infrastructure developments taking place in the locality including the efficient integration of air transport with other modes of transport;
• When addressing the future airport needs through a properly coordinated and integrated airport master plan to recognize the importance of airports as an important element of the national economic infrastructure;
• Appreciate the potential benefits of having a second runway at the main international airport;
• Encourage use of water bodies as water aerodromes for domestic aviation;
• Encourage use of public open areas for helicopter operations with due respect to safety and security requirements;
• Encourage private-public partnerships in airport infrastructure development and operation. Alternatively, Build-Own-Operate (BOO) concept may be examined for the development of new airports to augment the aviation infrastructure.

5.3.4 Human Resources Development

A skilled and competent workforce is considered necessity to ensure the smooth functioning of a safe and efficient aviation industry. In this respect the Government of Sri Lanka proposes continue to provide assistance to all Sri Lanka industries to address skills issues through the education and training framework, specifically encouraging the aviation industry to include aviation as a subject in the university curriculum with the view to upgrading to conferring degrees in aviation in order to enhance the professionalism in the aviation industry;
5.3.5 Development of Airline & Airport operations

Aviation industry is expected to appreciate its social obligations and play its part responsibly. In this respect the Government is to work in partnership with the industry to develop and maintain an effective policy framework to respond to aviation noise and emission as well as impact on wild life.
6 SECTORAL REFORMS AND STRATEGIES

This chapter titled Sector Reforms and Strategies is an attempt to articulate the existing status quo of the sector in terms of its reforms, strategies, programs and projects that have been articulated by the different agencies for each of the sub sectors. These would include reform programs, infrastructure projects, capacity building projects or any other projects that could be sourced from institutional documents such as Corporate Plans and Development Plans. This chapter will also include the relevant reviews of past studies and recommendations and findings made therein and follow up actions taken if any.

There are however many instances wherein there have been projects and programs that cannot be reconciled with stated policy interventions and strategies.

6.1 Highways

6.1.1 Sector Reforms

Institutional Reforms were carried out in the 1980s when the Highway Department was converted to the Road Development Authority. Some provincial road agencies remain as departments and are hesitant to be converted to authorities even though more fiscal and management independence is granted given the political interference it creates as opposed to the protection afforded within the departmental structure.

Recent attempts at reforms have been mostly in terms of funding for maintenance and creation of a Road Fund. The progress of this endeavour has been described in Section 3.3.1.2.1 and appears to be ready for full implementation shortly.

6.1.2 Strategies

The National Road Masterplan (NRMP) was formulated as a 10-year strategic investment program covering six complementary components, including (i) construction of expressways and highways, (ii) widening of highways to three different standards, (iii) reduction of traffic congestion, (iv) road maintenance and rehabilitation, (v) bridge rehabilitation and reconstruction, and (vi) land acquisition and resettlement and all measures to protect social and environmental values.
6.1.2.1 *Construction of Expressways and Highways*

This component accounts for the highest share (36%) of investment in the NRMP and involves six major projects with a length of 594 km and an estimated cost of Rs 238.3 billion spread over the entire program period of the NRMP.

6.1.2.2 *Widening of Highways (Rehabilitation)*

Widening of highways also referred to as Rehabilitation Projects under the NRMP is the most significant component in terms of geographical coverage and, along with that, connectivity for people. The component includes 141 individual projects and involves a total of 4,900 km that are to be improved to multi-lane standards, which for the majority of the roads means widening to standard two lanes. The total cost of the widening component is estimated at Rs 215 billion, which makes it the second largest component in the NRMP (32%).

6.1.2.3 *Reduction of Traffic Congestion*

This component covers 112 identified improvements located mainly in towns and cities, where projects are to ensure a smoother flow of traffic and a lower incidence of accidents. The proposed measures include improvement of junctions, provision of signaling systems at junctions, construction of by passes and flyovers, and grade-separated interchanges. The relatively small cost share of these projects in total NRMP investments (3.8%) belies their impact on providing relief to traffic congestion, avoidance of accidents, and contribution to the economic benefits attributable to the NRMP. Because of their relatively low cost, the heavy urban traffic, and the high cost savings generated by the improvements, the proposed measures are generating the highest return on investments among all NRMP components.

6.1.2.4 *Road Maintenance and Rehabilitation*

This component covers annual routine maintenance and periodic maintenance operations, the latter being carried out at intervals of five to seven years, depending on climate conditions and traffic. In addition to maintenance, the component covers 732 km of road rehabilitation on about 130 sections spread all over the country.

6.1.2.5 *Bridge Rehabilitation and Reconstruction*

This component includes 171 bridges under 11 major rehabilitation and reconstruction programs, most of which are ongoing and some nearing completion. The total cost of the component is Rs. 19.4 billion funded by a variety of donor agencies.
6.1.2.6 **Land Acquisition and Resettlement.**

The cost for land acquisition and resettlement were estimated at about 7% of total investments. The estimate is based on experiences gained in past projects. While this may be a crude measure, actual land acquisition requirements will only be known after the preparation of detailed designs, which determine the final alignments of the roads to be constructed.

6.2 **Railway Transport**

The Land Transport Policy envisages making rail transport an attractive and efficient mode of public transport especially in urban transport. This will be initiated with the improvement in the utilization of existing resources and with the infusion of new and modern equipment and fixed infrastructure.

6.2.1 **Sector Reforms**

Moreover it is stated in the Land Transport Policy that the railways will function as a Public Enterprise which will be empowered to manage the earned revenue within delegated financial authority. A Railway Development Fund is to be operated by the Railways using fines, surcharges, service charges etc for use in special projects, human resource development activities and incentives.

Moreover, commercial and marketing flexibility is to be infused to the SLR and to its decision making process by creating subsidiaries for specialized railway related non-core activities. The employee participation is to be given due consideration in the management process.

These measures also have to be considered as reforms as they require legislative changes to the Railway Ordinance. However this is different to the reform path proposed by a previous Government that was in power in 2003 to 2004 which brought legislation to convert the railways to an authority with a management board. This change though passed in Parliament as an Act was opposed by trade unions as it did not answer many critical issues pertaining to access to track and employee welfare. It was as a result, withdrawn by a new government that came to power in 2004. However a Railway Management Council was proposed as an alternative since it was felt that some degree of management reform was necessary. However this council also was not set up in law and was therefore only advisory in nature. With passing of time it ceased to function.

Private sector participation has been a sore point in the railways. Charges of corruption through poorly negotiated deals have often been made whenever any initiative has been made in this respect. As a result only few auxiliary services such as advertising, catering etc are currently undertaken by private sector agencies. A contract with a Cement company for transport of cement exists, but has not lead to other similar contracts as there are again charges it is not profitable for
the railways. However, the new initiatives of the State Enterprise Management Agency (SEMA) have specifically concentrated on private sector joint ventures for station development and ICD based developments.

6.2.2 Strategies

The Development Plan\textsuperscript{80} of the Sri Lanka Railways expects to increase the national modal share of passenger and freight sectors of railway from present 6% to 10% and from 2% to 5% respectively by 2016. The strategies to be adopted to achieve this are set out below:

- To increase frequency, reliability and capacity of the suburban railway services. This to include electrification, station modernization and integrated ticketing.
- To reduce travel time of long distance and intercity services as well as to improve comfort of travel and to introduce value added services. Based on differential pricing intended to exploit consumer surplus by utilizing existing capacity surpluses.
- To operate a suitable type of train service between stations where road based public transport could not be expected to be provided by road.
- Passenger concessionary tariff structure to be rationalized to ensure cost-effectiveness to the SLR.
- Railway freight tariffs to be de-regulated and the SLR to be permitted to determine tariffs competitively to attract freight transport from road to rail. The SLR to collaborate with the private sector towards achieving this objective.
- To identify and develop all sources of non-fare box revenues including the development of property, right of way access to utility providers, auxiliary service, ground rentals, concessionaries etc. Railway stations to be developed as service/commercial centers with private sector investment.
- To formulate a railway fare policy on the line of the bus fare policy for future fare revisions.
- To initiate studies to identify new rail connections to new economic centers as well as residential centers where rail connections are beneficial to economic growth and social development.
- To undertake construction of new extension lines where justified by detailed feasibility studies.
- To modernize the railway transportations by replacing the outdated obsolete, procedures, processes and systems with modern management technique and systems.
- Modernizing the existing ticketing system to an on-line and integrated system.

\textsuperscript{80} Railway Development Plan, Sri Lanka Railways, 2009
6.3 **Bus Transport**

6.3.1 **Sector Reforms**

The private bus industry has been mostly in the hands of individual operators. Even though many small entrepreneurs have failed in their investments in omnibus services, a few have established themselves. However even after nearly 30 years, no significantly large transport operators have got established even though several large operators did come up from time to time. As a result the larger share of bus transport is in the hands of the informal sector and not amenable to qualitative changes.

This situation constitutes a failure on the part of the initial reforms instituted in the 1980s where private buses were introduced with little or no regulatory framework. As the state operator was left to defend for itself and not strengthened, the private operators grew in to large numbers very quickly and became a formidable sector with political power. Since then all attempts to improve quality of bus transport has failed.

The most specific instance was in 1998 when the NTC Act was amended to ensure that no new permits would be issued after 2004 to an operator who did not own at least 50 vehicles. This legislation was withdrawn and has been replaced with a new policy initiative to move towards setting up Bus Operating Companies as set out in the Land Transport Policy (See Box).

It is the policy therefore to further consolidate the over 15,000 individual owners with management orientation which has been the key factor missing in the private bus sector.

Each regulatory agency will also be expected to be financially independent for the recurrent expenses. The re-engineering exercise will stipulate a fee to be collected from each Omnibus Service Agreement based on its assessed annual income. This income will also be utilized for

- Compensatory payments for Socially Obligatory Service and
- Capital Development Projects such as passenger facilities, databases, modernization of systems

The saving made in the form of reduced spending on public-sector subsidies gives the regulatory authorities’ scope for financing expansion and quality improvements in public transport.
Individual ownership of buses will continue in the form of investment in buses. The management would be with a 3rd party identified as a Qualified Company which will hold Omnibus Service Contracts for a route or group of routes. Initially such companies will be formed by shares issued to existing operators on the basis of one share per permit on a given route or collection of routes.

Operators with managerial skills are expected to be elected (as stipulated in the articles of registration) by the shareholder of an Omnibus Operating Company to serve on its Board of Management. The company may declare dividends to its shareholders who in turn may be the bus owners who will then be motivated to appoint competent persons to the Board. These boards will also have representatives from financial institutions and regional trade chambers, but no appointees from government or its agencies.

The Government will assist in the urgent development of capacity in the companies with office facilities, computerization and other basic requirements as well as in training and human resource development. One salient feature of this exercise would be the employment of a Manager who has the required competencies who will deal with all operational issues with the regulators and owners, as opposed to bus owners themselves attempting to sort out issues.

**Box: Proposed Bus Operating Companies**

A further policy intervention has been the tendering of bus route permits to the private sector. The National Transport Commission since 2007 has successfully called and awarded new permits by tender. These are permits for profitable routes which were awarded on basis of influence for as little as Rs 3,000 per annum. The tenders now being awarded have gone up to Rs 2.5 million per annum and averages around Rs 500,000 per permit per annum. Thus making the NTC potentially a revenue generator capable of providing fully the negative concessions such as Gami Sariya, Sisu Saeriya and Nisi Saeriya the bus services with targeted subsidies discussed in greater detail in Section 6.3.2.5 below.

### 6.3.2 Strategies

The following strategies have been identified in the Land Transport Policy.
6.3.2.1 **Timetables**

The Government will implement integrated rotated timetables for all bus routes. All services operated by the SLTB as well as private operators will be brought in to one integrated time table. In the case of time slots allotted to individual operators, they shall be rotated in order to ensure equitability of revenue generating opportunity.

6.3.2.2 **Re-planning Bus Route Network**

The National Transport Commission together with the provincial regulators will take steps to reorganize the bus routes throughout the country so that there would be greater coverage of service areas, reduction of transfers between buses as well as improving inter-modal connections especially with the railways. For this purpose, the NTC will define a network of national routes connecting the capital and major townships served by omnibuses.

6.3.2.3 **Bus & Multi Modal Terminals**

The government will promote the development of multi-modal transport terminals at suitable locations. In doing so, it will stipulate standards for all passenger terminals and stations with respect to conveniences, waiting areas and other supporting facilities that should be provided. It will raise such standards from time to time. The Government will provide technical and financial assistance to formulate proposals for development of such multi modal terminals through the National Transport Commission. It will be the policy of the government that all such terminals should give priority to passenger needs and only limited commercial activities should be conducted within such premises.

6.3.2.4 **Human Resource Development – Bus Crews**

Private bus employees who are often at the receiving end of much criticism by the travelling public are also under tremendous hardships. They have to endure long hours, lack of job security, non-permanency, no proper facilities to rest or have meals, toilet facilities etc. The money they take away as pay or commission or earnings may be considerable. These however do not seem to necessarily improve their quality of life as their working environments are so oppressive.

Even as the payments for EPF and ETF have been included in the costs for computation of fares, these payments do not happen at present. Under this policy, all employees will require compulsory registration in EPF and ETF. The National Transport Commission will maintain a National Database of all Omnibus Drivers and Conductors, Inspectors, Managers and other employees in addition to other relevant information. It will also institute a de-merit point system which will be based on the performance of such employees. The procedure would ensure a process of re-training to earn points, for misconduct or failing to meet the required standard.
6.3.2.5 **Subsidies**

### 6.3.2.5.1 School Transport Services

The Government will continue to assist the transport of school children and students at tertiary educational institutions to travel for purposes of their respective places of study. It will specifically intervene as follows:

- Continuity of Concessionary Season Tickets
- Provision of Dedicated Sisu Saeriya School Bus Services
- Assistance scheme to provide bicycles for school children

### 6.3.2.5.2 Gami Saeriya

The Government will continually expand the Gami Saeriya rural bus program by providing the necessary compensatory payments to ensure minimum level of mobility for rural and estate areas so that people living in such areas do not need to pay higher bus fares to access basic services. Such compensatory payments will be paid on actual delivery of services as stipulated through a contract under the NTC and monitored by a committee of leading citizens of the community. Both the State and private operators will be offered such services for a period of three years. Generally such payments will be limited for a period of three years and communities together with the operator will be required to ensure continuity of services after this period by achieving financial viability without assistance.

### 6.4 Aviation

According to the Draft Aviation Policy the following interventions are planned:

- To continue to provide international passenger and cargo air transport services at economic prices through development of new airports and improvement of existing airports.
- To provide adequate world class airport infrastructure capacity in keeping with the demand, while ensuring the maximum utilization of available capacities and improving management efficiencies thereof.
- To stimulate economic activities, integration of air transport with other modes of transport.
- To encourage multiple local carriers for international air services.
- To strengthen domestic air links between Colombo and remote areas.
- To facilitate the development of supporting infrastructure such as hotels, organized taxi-services at the airports in order to help growth in tourism.
• Promote private sector investment for the establishment of training centers for pilots, flight engineers, air traffic controllers.

6.5 Non-Motorized Transport

Non-motorized transport includes all modes of urban and rural transport that are either self propelled or animal powered. Typically this would be pedestrians and bicycles in urban areas and in addition bullock carts etc in rural areas.

6.5.1 Reforms

Up to now there has not been an apparent interest in promoting any form of non-motorized transport in Sri Lanka. High profile investments may be required to flag attention on promoting non motorized transport in urban areas by providing separate right of ways and facilities. This calls for reform in the urban transport strategy.

6.5.2 Strategies

The government considers in the Land Transport Policy that such environmentally friendly modes of transport should be afforded the highest support and will be affecting the following policy interventions.

• To ensure that the planning and development of infrastructure facilities includes reasonable provision for non-motorized vehicles and pedestrians.
• In urban areas to assure that separate infrastructure facilities exist for pedestrians and non-motorized vehicles on selected urban roads and designated regional roads where there is a potential demand.
• To improve awareness of safety aspects in the use of such vehicles and popularizing the use of safety equipment on bicycles.
• In order to popularize the use of bicycles, by providing a special scheme for financing the purchase of bicycles through the rural banking system.
• To take steps for schools and offices to encourage the use of bicycles and for the provision of parking or stacking and security of such.

To develop park and ride facilities near railway stations and bus stops for bicycles so that greater degree of choice is provided for door to door services.
6.6 Goods Transport & Logistics

6.6.1 Reforms

There has been no government intervention in any forms of goods transport of logistics activity. Some see this as a positive status given the possible mishandling by government intervention. On the other hand some necessary interventions seem to be not forthcoming leaving Sri Lanka’s goods transport and logistics disjointed and inefficient. Thus some degree of reform as set out in the Land Transport Policy may be necessary more as a facilitator as opposed to a regulator. A first step would be to include the function of goods transport and multi modal logistics under a state agency. An alternative would be to strengthen private sector driven agencies that would initiate such work and prevail upon government to make the necessary interventions as and when deemed required. This to some degree happen in the maritime sector with regards to Shipping companies.

6.6.2 Strategies

The Government’s role in goods transport & logistics as stipulated in the Land Transport Policy will be that of a facilitator. Its primary function in this regard is to:

- Ensure that taxes, licensing fees etc are computed on the basis of actual costs and that external costs are considered in effecting incentives to particular modes of transport such as railway for heavy goods movements.
- That all motorized goods vehicles be subjected to a Goods Vehicle Conformity Certificate which will have to be renewed every 3 years.
- Stipulate safety standards for the industry.
- Undertake modernization of technology used in the goods and logistics sector such as for packaging, handling, warehousing and e-commerce through continuous funding for research and development.
- Stipulate and control the axle loads of freight vehicles on roads to prevent damage of roads due to over loading.
- Provide tax incentives for modern vehicles and equipment that will improve the performance of the industry and bring it on par with international standards.
- Regulate the handling and carriage of hazardous goods.
- Regulate and monitor of driver work and rest hours for goods vehicles drivers
- Undertake joint ventures and other private investment for utilization of railway resources and capacity for increasing the carriage of goods by railway, especially to and from the ports, airports and industrial zones.
Review of Sri Lanka Transport Sector

- Assist in developing several rail based Logistics Centers or Villages in close proximity to the port and the airport so that they can function as Inland Container Depots as well as logistics centers.
- Take urgent steps to facilitate the development of a sea-air hub for freight transport with good land transport connections using both rail and road.

6.7 Rural and Plantation areas Transport

Rural Transport refers to transport infrastructure & services that link rural and estate areas to the nearest major bus route or town centre where there is a bus terminal, markets or town centers.

6.7.1 Reforms

Successive governments have been sensitive to transport for rural areas. However this has been more political as opposed to functional. Transport remains an underdeveloped service in most rural areas and in almost all plantation areas. The construction of concrete roads with the intention of making roads more motorable will still fall short of providing services which will remain expensive unless public modes are facilitated. In this respect the provision of the rural bus service (Gami Seriya) on compensatory payment basis to communities where there is a justifiable demand for such a service but where it is inadequate to maintain a regular service which was introduced in 2005 is a successful reform. Currently the NTC provides concessions for around 500 such services operated by both the SLTB and the private sector.

6.7.2 Strategies

The government in recognition of the wider socioeconomic policy of promoting rural socioeconomic well being and equity based growth intends to provide special consideration with respect to transport needs of rural and under developed or developing areas. Its primary policy interventions would be:

- To fund the development and/or introduction of a suitable vehicle designed for the carriage of both goods and passengers exclusively on roads in remote areas.
- To set up Community Based Transport Monitoring Committees to monitor and report the quality of services provided under the rural transport program.
- To facilitate a regular system of mobile public consultations in rural areas to determine transport needs and to engage in facilitating the design and provision of services to satisfy such demands.
6.8 Human Resources Development

It is expected that in order for the development of transport that the proper standards for those providing inputs to the sector are in place at all levels. However, this is not so. Transport has poor stipulation of professional or educational requirements especially at the management and higher levels. Hence urgent intervention through a sectoral reform is needed to reverse this situation which has been rapidly worsening in recent years.

6.8.1 Reforms

This requires the stipulation of professional qualifications in relevant areas for members of Boards of Management and all senior management positions in the transport sector agencies including the national and provincial transport regulators and all State agencies under the respective ministries of transport. It also requires the stipulation of standards for managers, bus crew and other staff of such organizations in terms of education and experience.

6.8.2 Strategies

In order to ensure that this reform can be sustained it could be the policy of the ministry that all executives working in planning, administration and operational aspects be required to gather specialization in transport related disciplines as is relevant. Furthermore it will be necessary to work with all agencies under it to provide continuing professional development for all levels of employees in order to improve their contributions. Assistance to employees to obtain professional organizations such as CILT or degrees, diplomas and certificates from reputed institutions will also be a strategic intervention.

6.9 Energy Efficiency

Sri Lanka presently incurs a heavy expenditure on the importation of petroleum fuels for its transport activities. There is no explicit policy on this matter.

6.9.1 Reforms

The Government needs to introduce a policy agenda that would reduce the overall consumption by (a) reducing the unproductive transport, (b), shifting of passengers from private to public modes of transport which are more fuel efficient (c) higher taxation of vehicles for private use with higher engine capacities (d) taxation rebates for vehicles having newer fuel efficient technology such as hybrid technology which promotes greater fuel efficiency and also for use of non-fossil fuels.
6.9.2 Strategies

The Government will intervene in order to:

- Ensure that the pricing of fuels is such that it discourages unwarranted use especially when reasonable options of a more energy efficient nature are available. As such to ensure that economic costs including pollution costs are always recovered.
- Mobilize a study to pursue the electrification of suburban railways.
- Provide incentive for new technologies such as hybrid vehicles and new source of fuel such as bio fuel
- To maintain an updated database on the status of the environment and ensure public awareness of the situation and to enlist public support in managing the environment with respect to transport use.
- To study the possibility of introducing less pollution or zero pollution vehicles for public transport vehicles and taxis.

6.10 Safety and Security in Transport

Transport Safety is becoming a matter of the highest concern and importance given that with increasing mobility, the vulnerability to accidents is also increased. While road transport now accounts for around 2,300 deaths in Sri Lanka, the matter of accidents at railway crossings as well as accidents to passengers on trains is also of concern. Moreover, there is a concern the world over that transport and in particular public transport is increasingly vulnerable. Security of passenger is also a growing concern.

6.10.1 Reforms

Transport Safety, particularly road safety has not been a matter of political interest ever in Sri Lanka. There is today a need for high level intervention either at government level or from civil society level to flag this social problem.

6.10.2 Strategies

There are two documents that have captured the road safety status in Sri Lanka over the last few years. The first of these is a document compiled by the University of Moratuwa at the conclusion
of a workshop held at the Ministry of Transport in 2003\textsuperscript{81} and the second is the Sessional paper on Arresting the Increase in Road Traffic Accidents submitted to the 6\textsuperscript{th} Parliament of Sri Lanka in 2009\textsuperscript{82}. Based on these documents the proposals include for the following interventions:

- Reforms in Insurance & Compensation
- Legislation & Enforcement
- Institutional
- Funding & Investments
- Modernization and Application of New Technology
- Training & Testing
- Engineering
- Monitoring & Coordination
- Reporting & Research
- Education and Awareness
- Vehicle Standards & Fitness Certification
- Post Accident Care

6.11 Transport and the Environment

Transport has a number of well known negative impacts on the environment. This mostly takes the form of air pollution, noise pollution, visual pollution, impacts on eco system, impacts on human settlements and agriculture etc.

6.11.1 Reforms

Unlike in the road safety issue some progress has been made in the introduction of Vehicle Emission Testing program from 2008 onwards. The growing popular conception that air pollution is a health hazard is gathering momentum. However such reform processes are still unsafe from disruption which can be caused by corruption in the process or neglect of the importance.

\textsuperscript{81} This was based on a Road Safety Strategy paper prepared by the Chartered Institute in association with the University of Moratuwa presented to the Hon Minister of Transport and submitted to the Ministry, of which there has been no follow up since.

\textsuperscript{82} This was a result of a Select Committee of Parliament that was proposed by Mr Mano Wijeyratne MP and which met for a period of over one year, the final report of which has been prepared in 2009 but not presented to Parliament as yet.
6.11.2 Strategies

Strategic interventions to expand this to other areas of environmental concerns would include to:

- Revise vehicle tax structures to encourage vehicle imports that are less polluting.
- Move away from 2 stroke technology for motor vehicles.
- All vehicles should comply with noise standards stipulated under the proposed CEA Act and enforced under the provisions of the Motor Traffic Act.
- Adaptation of EURO II standard for both vehicles and fuels from 2010

6.12 Planning & Coordination

6.12.1 Reforms

Transport is essentially a complex activity. Its efficiency lies in how such complexity can be dealt with in a planned manner so that the ever changing requirements for mobility can be matched with the most appropriate technological interventions. However this process is completely absent today.

In order to ensure that the planning function is strengthened and becomes a responsibility of an assigned agency, the Government needs to include the Planning Role as a Function for the National Transport Commission. Which will include in its planning work the investigation of new modes of transport, energy utilization in transport, issues of network planning and national integration through mobility, regional linkages such as in SAARC and possible future connections with India, planning with respect to improving requirements of users for mobility, safety, convenience, comfort and security and maintaining databases for use in transport planning.

6.12.2 Strategies

The Ministry of Transport and its agencies should then liaise with other agencies both government and non-government in order to obtain views and suggestion and this would include among others:

- Key transport infrastructure agencies such as the Road Development Authority, Sri Lanka Ports Authority, Airport Authority of Sri Lanka.
- Key planning agencies including the Ministry in charge of urban development, the Urban Development Authority, Department of National Planning and the National Physical Planning Department.
• Other key agencies related to transport services including the Ministry of Education and the Department of Education, Ministry in charge of the subject of industries, Board of Investment, Industrial Development Board, Ministry of Public Administration and the Tourist Board.

• Provincial and local government authorities and agencies under them relating to traffic and transport.

• Enforcement agencies including the Traffic Police

• Education and research agencies including universities.

• Key agencies representing business and trade such as chambers of commerce,

• Professional agencies in the transport sector including the Chartered Institute of Logistics & Transport,

• Trade associations representing the different transporters.

6.13 Research & Development

6.13.1 Reforms

Sri Lanka’s transport network has fallen behind in terms of technology. Most aspects both in terms of hardware as well as procedures and software need to be rapidly developed in order that the sectors performs efficiently and provides the modern day amenities associated with quality transport. Urgent intervention is required ensure that R&D is promoted to develop local solutions to transport problems.

6.13.2 Strategies

Towards this end, the Government should:

• Ensure that all data that each agency holds and collects including personnel information, operational and asset data will be stored in Management Information Systems that are well designed for multi-use.

• Ensure that all operational aspects such as timetables, route and schedule information, fares and tariffs will be made available on real time basis.

• Ensure that each agency under the Ministry of Transport will allocate a minimum of 1% annually of its recurrent expenditure on research and development including innovations of both hardware and software.

• Have the National Transport Commission will be charged with earmarking at least 2% of its total budget on R&D annually.
• Organizations to be encouraged to develop internal research capabilities and to also encourage obtaining results of funded research through universities and other research agencies for more specialized work.

• The use of ICT to be used in studying costs and revenues of state sector transport providers and to enhance the efficiency of such operations.
7 **ISSUES IN PROVINCIAL AREAS**

This chapter is similar to the previous one except that it deals with development programs which are of a regional nature and thus are more multi-sectoral and integrated. The objective of this chapter is to identify such integrated strategies and programs and to identify specific transport sector activities required within such programs. The provinces that will be assessed in this chapter are:

- Southern Province
- Northern Province
- Eastern Province
- Western Province and
- Uva Province

Among these the Northern and Eastern Provinces are the priority provinces in the process of rebuilding. The Uthuru Wasanthaya (UW) program which aims at developing the Northern Province and the Negenahira Wasanthaya (NN) which is a similar program for the Eastern Province has been summarized in this chapter. The different transport sector programs and projects identified under each such program have been described in brief.

Southern Province is the other province to which much attention is placed, centred around developing Hambantota as an alternate growth pole to Colombo by constructing an international port as well as the second international airport for Sri Lanka. There are several highway and rail projects planned for the Southern Province.

The Western Province on the other hand is the economically advanced province at present, but which due to its haphazard growth has resulted in intense transport activity, congestion and accidents. This too has several highway based investment plans. The Uva Province represents a typically agricultural based and hinterland province which has diverse development potential. This examines how transport development can be used as a catalyst to develop the province economically.

7.1 **Southern Province**
The Southern Province includes three districts namely Galle, Matara and Hambantota and one of the important administrative boundaries in Sri Lanka. The Galle City is the capital of the Southern Province. The total population in the province is approximately 2.5 million at present. The above population splits among Galle, Matara and Hambantota Districts at 44%, 34% and 23% respectively. The socio economic conditions are characteristically different to that of other provinces due to the land use and geographical conditions in the region. The economy of the province is mainly depends on agriculture, industries, fishing and significant contribution from tourism. The province has been identified as a rapid developing area since year 2004 due to the introduction of major national projects such as Southern Expressway, Sea Port and the second international Air Port at Hambantota.

The land area of the Southern Province is 371,784 hectares. The basic cultivations are paddy, cinnamon, coconut and tea towards the hilly areas in Galle and Matara Districts. The land towards Matara and Hambantota Districts is basically used for paddy and chena cultivation. Moreover, each district has a boundary along the coast and hence the fishing and coastal tourism are popular industries all along this coastal strip. There are many fishery harbors available at close intervals along the southern coastal line.

7.1.1 Current Situation

7.1.1.1 Public Transport

The SP RPTA has issued around 1,318 route permits for private omnibuses to operate within the province. Sri Lanka Transport Board also has deployed approximately 408 buses for intra-provincial passenger transportation purposes. In addition there are another 460 buses issued with permits by National Transport Commission for inter-provincial (long-distance) services starting from within the province. However SLTB buses and interprovincial buses are not coming under the administration of RPTA.

Provincial Transport Authorities generally makes the capital investments on construction and renovation of bus terminals. Around Rs 200 mn has been allocated for construction and rehabilitation of several bus terminals in the Southern Province in 2008 and 2009. This is however an exceptional occurrence as the period between 1999 and the year 2007 saw less than Rs 30 million being allocated for such development of infrastructure.
7.1.1.2 **Para Transit**

Other vehicles operating within the province for fee or reward such as school vans, office vans, and three wheelers or taxis are regulated in the SP, by Act No 3 of 2006 and by Gazette No 1518 of 2007. Three Wheelers of which there are nearly 59,000 vehicles registered within the province, provide passengers services within town areas and in rural areas, especially where regular public transport does not operate or after such services cease to operate in the evenings. These are mostly unregulated except for insurance and annual licensing as motor vehicles.

7.1.1.3 **Provincial Vehicle Fleet**

SP has the 2nd highest number of registered motor vehicles in Sri Lanka. Of a total estimated operational fleet of 2.2 million vehicles in 2007, it is noted that only 330,663 or around 14.9% of vehicles are registered in SP. Of these also only around 24% vehicles are four wheeled vehicles or larger.

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Fleet SP</th>
<th>% of National Fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omnibuses</td>
<td>2,864</td>
<td>18.1</td>
</tr>
<tr>
<td>Private Coaches</td>
<td>2,631</td>
<td>10.5</td>
</tr>
<tr>
<td>Dual Purpose Vehicles</td>
<td>19,091</td>
<td>10.6</td>
</tr>
<tr>
<td>Private Cars</td>
<td>18,567</td>
<td>7.4</td>
</tr>
<tr>
<td>Land Vehicles</td>
<td>20,268</td>
<td>22.0</td>
</tr>
<tr>
<td>Goods Transport Vehicles</td>
<td>23,619</td>
<td>13.0</td>
</tr>
<tr>
<td>Motor Cycles</td>
<td>184,132</td>
<td>16.3</td>
</tr>
<tr>
<td>Three-wheelers</td>
<td>59,055</td>
<td>17.3</td>
</tr>
<tr>
<td>Others</td>
<td>436</td>
<td>7.6</td>
</tr>
<tr>
<td>Total</td>
<td>330,663</td>
<td>14.9</td>
</tr>
</tbody>
</table>

7.1.1.4 **Roads**

The connectivity of the Southern Province to other parts of the Provincial Capitals (Western, Eastern, Uva and Sabaragamuwa) is basically by the road transport network. The second national arterial road namely A2 Road connect all three district centers in the Southern Province to main

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83 *Source: Central Bank of Sri Lanka, 2007*
capital of Colombo. The all three district centers are connected to other district centers of the adjoining provinces at least by a national road link.

The roads in the national network within the SP carries traffic volumes within the range of 2,000 to 4,000 vehicles per day. On provincial roads the traffic volumes are generally in the less than 1,000 vpd and for local authority roads it was found to be in most instances between 200 to 300 vpd. The typical vehicle composition on national roads is that around 60 % of vehicles are four wheeled or larger. The typical average speed on the national roads is between 30 to 40 km/hr while that of the provincial network are in the range of 15 to 30 km/hr mostly depending on terrain and condition of road.

7.1.1.5 Railway

The railway traverses from Colombo to Aluthgama with a double track and is a single track from 62nd km to 161st km beyond Aluthgama to Matara. This is the second main railway line in Sri Lanka and called the Coastal Railway.

In the SP the railway operates up to the Matara providing service to Galle and Matara districts. Currently Railway is not serving Hambantota district but there preliminary actions has been taken to extend railway line up to Kataragama. Railway is more popular among travelers moving from and to Colombo and South part of the country. The railway currently operates seventeen passenger trains between Cities of south (Galle/Matara) and Colombo. However rail operations are also not handled by the provincial administration and it is administered by the Sri Lanka Railways coming under Ministry of Transport of Central Government.

7.1.2 Ongoing Projects

7.1.2.1 Southern Transport Development Project (STDP)

One of the major transport development project related to Southern Province is the Southern Expressway called “Southern Transport Development Project (STDP)”. This is to reduce the present travel time between Colombo and Southern Province by road transportation. This project consists of several components, which are financed by ADB, JBIC, NDF, SIDA and GOSL. Main objective of this project is to assist the development of the economy of Southern Province by encouraging growth in industries, tourism, fisheries and agriculture.

This will be Sri Lanka’s first access controlled expressway, connecting Kottawa in Colombo suburbs to Matara in the Southern Province with an access road from the Highway to Galle Port. Access to the expressway is only through eleven interchanges, which are located at places where expressway crosses major roads/highways. Since this is a massive project in terms of cost and extent of works, the project has been divided into two sections for financing purposes.
### Table 7-2: Details and Status of Southern Transport Development Project

<table>
<thead>
<tr>
<th>Details</th>
<th>JBIC PKG 1 Kottawa to Dodangoda</th>
<th>JBIC PKG 2 Dodangoda to Kuru’hetekma</th>
<th>ADB Section Kuru’Hetekma to Pinnaduwa</th>
<th>South Section Pinnaduwa to Matara &amp; Galle Port Access Road</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Donor</strong></td>
<td>JBIC</td>
<td>JBIC</td>
<td>ADB</td>
<td>EXIM BANK OF CHINA</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>34.4 km</td>
<td>31.6 km</td>
<td>29.3 km</td>
<td>35.8 km</td>
</tr>
<tr>
<td><strong>Present No. of Lanes</strong></td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Revised Design Lanes</strong></td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Contract Completion (Original)</strong></td>
<td>18th Sept. 2009</td>
<td>23rd March 2010</td>
<td>25th April 2006</td>
<td>December 2011 (expected)</td>
</tr>
<tr>
<td><strong>Contract Completion (Revised)</strong></td>
<td>December 2010</td>
<td>September 2010</td>
<td>December 2009</td>
<td></td>
</tr>
<tr>
<td><strong>Original Contract Price (SLR Billion)</strong></td>
<td>9.5</td>
<td>8.2</td>
<td>8.7</td>
<td>18.7</td>
</tr>
<tr>
<td><strong>Revised Contract Price (SLR Billion)</strong></td>
<td>20</td>
<td>15.4</td>
<td>24.1</td>
<td>-</td>
</tr>
</tbody>
</table>

This Project includes a component to improve road safety aspects at national level and to ensure road safety in Southern Highway. Implementation of project activities has been commenced in January 2003 and the expressway is scheduled to commence full operation in 2011.

### 7.1.2.2 Hambantota Sea Port

The Hambantota Sea Port is under construction at present and is one of the main important transport infrastructures to Southern Province. Accordingly, in the start up phase, the Hambantota Port is expected to function as an industrial seaport provided that individual cargo generating industries can specifically be attracted to set up their businesses in or adjacent to the port area. In the medium term, the port is expected to handle any overflow cargo arising from reaching maximum utilization in the existing ports of Colombo, Galle and Trincomalee. In the long-term horizon it is expected that Hambantota will evolve to be an important multi-purpose port that will handle over 50% of Sri Lanka’s total cargo of all types.

### 7.1.2.3 Southern Highway Extension Project

An extension of Southern Expressway up to Hambantota was proposed by Road Development Authority (RDA) as the next step of the present STDP. A prefeasibility study has been carried out from Transportation Engineering Division of University of Moratuwa in year 2008. The project is to check the economic and social feasibility of the expressway extension from Godagama to Hambantota. The project could be made economically feasible if both the air port and sea port had been completed by the time of the extension is completed. Also it was suggested to postpone...
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the commencement of the highway construction till the above objectives are reached and so that the outcomes could be justified. However, RDA is planning to conduct EIA and to get necessary environment clearances before applying for funding assistance.

7.1.2.4 Second International Airport in Sri Lanka

The location for the second international airport as the Hambantota district was chosen in 2005. Its benefits in terms of cost savings to airline operators by having to carry lesser amounts of extra fuel for emergency diversions has been estimated as being considerable. However, even though the growth of passenger traffic will be significant, the diversion of traffic to Mattala from BIA will be slow. Even by the year 2025, it is not expected to handle more than 5% of the international air traffic.

7.1.2.5 Extension of Railway Line from Matara to Kataragama

There is interest in the revival of the proposed extension of the Coastal Railway line from Matara to Kataragama, a project which was first initiated in 1991. This proposed extension of the railway will be competitive to the ESH in some aspects, while in other aspects it will be complementary. For example, the railway will be able to provide cheaper transport of bulk goods and containers to destinations in the Western Province and thus some trucks may be taken off the ESH. While this will reduce road traffic, the lower cost of transport, will increase productivity which will in turn lead to more economic activity and more traffic. While the competitive areas will be limited to mostly heavy goods transport to Western Province, the areas of complementarity which spills over to the road network will extend to the carriage of both passenger and goods transport to all destinations.

7.1.2.6 Bus Terminal Rehabilitation Project

There are 11 bus terminals identified for development in the Southern Province in 2010. The cost of this is around Rs 70 million that has been allocated from Treasury funds. There are no specifically identified projects/programs from 2011 onwards.

7.1.2.7 Integrated Transport Plan for Southern Province

Even though five macro transport projects have been developed there has not been an integrated transport plan for Ruhuna. There is a need to undertake such a study so that transport sector capacity and land sue development potential would be harmonized.

Hambantota is being planned as a first order urban centre. This will only be possible if it has a primary industry and good transport connectivity to all other parts of the country. While the port and its associated developments are to bring in the economic stimulus, the ESH along with the railway extension and the airport will provide the transport connectivity to the rest of the country.
Therefore, connectivity to the other first order city, namely Colombo/Sri Jayewardenepura becomes vital. Moreover, connectivity to the new highway network which is presently focused around Colombo will also be important to develop a hub status for Hambantota as a logistics and distribution nodal point for hinterland transport.

Ruhuna is considered as having the greatest potential due to the availability of a scarce factor of production- in a densely populated country like Sri Lanka, being the availability of land. This together with the increasing congestion in Colombo area makes the possibility of developing Hambantota as an industrial district around the port a distinct necessity and possibility.

7.1.3 Issues

The existing and proposed expansion of Export Processing Zones should be well supported by public transport access. The following problems exist in this regard:

- **Koggala Export Processing Zone**: Located south of Galle town, this EPZ has presently 22 industries and is operating at 50% of its capacity. It still depends on the port of Colombo for most of its import and export cargo sources and the lack of a fast connection to Colombo and other infrastructure problems such as deficiencies in water and electricity and general support facilities in the vicinity are reason why full exploitation of the facilities at this EPZ has not happened over the last two decades this EPZ has been in operation.

- **Mirrijjawela Industrial Park**: Located about 1 km from the Mirrijjawela junction on the Sooriyawewa Road, this is a newer facility which presently has 5 garment related industries. It too is operating at about 50% capacity.

- **Bata-Atha Industrial Park**: Also located in the Hambantota District, it is placed around 20 km towards Galle from Hambantota. This is yet to be developed even though it was originally identified as a park for leather based industries.

However to-date, there is no multi-modal transport study undertaken for the mega development projects being planned for Hambantota. These major projects, all of which are transport projects namely a port project, an airport project, a highway project and a railway project are planned independent of each other. There is a very significant development potential arising from each of these. However the combined synergies have not been studied by any agency. The duplications that may arise have also not been identified.

Moreover the other development requirements to ensure the best returns for these investments in terms of supporting transport infrastructure and services such as bus and trucking services as well as railway services and logistics provides, hubs etc. have not been discussed yet. This includes
identifying the different agencies responsible for provision of the infrastructure or services. This is particularly important since transport is provided at all three levels of government and identifying what each levels and what each agency under each level of government should undertake, needs to be planned and coordinated.

7.2 Northern Province (Uthuru Wasanthaya)

The NP is so called as it is located in the northernmost part of Sri Lanka and is in fact just 35 km from the southern part of India. It is connected with the Indian mainland by a mythical Adam's Bridge across the shallow Palk Strait. The NP has a land area of 8,884 square km. The province is surrounded by the Gulf of Mannar and Palk Bay to its west, the Palk Strait and India to the north, the Bay of Bengal to the east. Forty percent of the coastal belt of the country falls within the NP. The land boundaries are the Eastern, North Central and North Western provinces to the south of NP.

In case of North and East Provinces, due to the unsettled political situation, the Northern Provincial Council was never set up while Eastern Provincial council was set-up more recently in 2008. In the interim prior to formation of provincial councils, the regulation of omnibus transport within both these provinces were made possible through the National Transport Commission which has bestowed powers to the Government Agents of the respective districts within the province to issue permits on behalf of the Commission and to carry out other administrative functions. The administration of the motor vehicle fleet was done by the Provincial Commissioner of Motor Traffic under the Chief Secretary.

The Northern Province’s share of the national GDP is around 2.9% and has recorded a per capita income of Rs 109,530 (approx USD 960) in 2008. It is noted that is also has one of the lowest population densities in the country.
7.2.1 Current Projects

7.2.1.1 Railway

The Northern Railway line when it was fully operational provided connectivity to all major town centres in the NP other than Mullaitivu. However with the break out of armed conflict in the area the rail tracks have been completely dislodged while many structures including bridges and stations have been destroyed. The train presently operates to Vavuniya and proceeds to Omanthai just 13 km beyond Vavuniya. The Talaimannar line branching out from Medawachchiya has also been completely dismantled.

7.2.1.2 Roads

The A9 is the most important national road that runs north-south from Kandy to Jaffna. It connects Kandy to Jaffna through several important regional centres outside NP such as Matale, Dambulla and Anuradhapura. It also serves as the only road that connects the NP to the rest of the country. Moreover the A9 is also the most important road that connects the regional centres within the NP such as Jaffna, Vavuniya, Mankulam, Paranthan and Kilinochchi. The A9 along with the A32 which runs along the western coast from Mannar to Jaffna and A34 and A35 which connects Mullaitivu to the A9 at Paranthan and Mankulam respectively are the other important regional roads.

The majority of these and other roads in NP are currently in a dilapidated condition as there was no proper maintenance or rehabilitation during the last three decades. Furthermore a substantial portion of coastal roads were badly affected by the tsunami in 2004. Some of these tsunami affected roads are being rehabilitated with foreign assistance, especially from the ADB under TAARP and CAARP projects.

7.2.1.3 Traffic Management

The roads in the national network located in the civilized areas of the NP, carry motorized traffic of less than 2,000 vehicles per day.\textsuperscript{84} In terms of most provincial roads it is less than 200 motorized vehicles at present. Most of this traffic is made up of two or three wheelers or military vehicles. On the other hand, non-motorized traffic, especially bicycles volumes are high on these roads and often surpass the total motorized traffic. The typical average speeds on the national roads are between 25 to 30 km/hr while that of the provincial network are in the range of 20 to 30 km/hr.

\textsuperscript{84} TransPlan Traffic Estimation Model, University of Moratuwa, 2008 and field observations, 2009
7.2.1.4 **Vehicle Fleet**

In 2007, the estimated fleet of motorized vehicles in the Northern Province was 70,141 and this accounted for 3.2% of the fleet in the country. Though the traffic growth has fluctuated with the level of conflict, the two-wheeler and three-wheeler fleet has grown steadily over the last decade. This indicates that the population is gradually becoming motorized by acquiring low cost private modes of transport. This province due to its intense agricultural nature also has a higher percentage of land vehicles. Around 95% of the vehicle fleet is made up of these three types of vehicles.

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Fleet NP</th>
<th>% of Sri Lanka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omnibuses</td>
<td>538</td>
<td>3.4</td>
</tr>
<tr>
<td>Private Coaches</td>
<td>398</td>
<td>1.6</td>
</tr>
<tr>
<td>Dual Purpose Vehicles</td>
<td>1,255</td>
<td>0.7</td>
</tr>
<tr>
<td>Private Cars</td>
<td>1,418</td>
<td>0.6</td>
</tr>
<tr>
<td>Land Vehicles</td>
<td>4,177</td>
<td>4.5</td>
</tr>
<tr>
<td>Goods Transport Vehicles</td>
<td>1,916</td>
<td>1.1</td>
</tr>
<tr>
<td>Motor Cycles</td>
<td>57,258</td>
<td>5.1</td>
</tr>
<tr>
<td>Three-wheelers</td>
<td>2,864</td>
<td>0.8</td>
</tr>
<tr>
<td>Others</td>
<td>317</td>
<td>5.5</td>
</tr>
<tr>
<td>Total</td>
<td>70,141</td>
<td>3.2</td>
</tr>
</tbody>
</table>

*Source: Central Bank, Sri Lanka*

7.2.1.5 **Bus Transport**

There are a total of 592 valid route permits for intra-provincial bus services within the province issued by the respective Government Agents. These are in addition to the 96 buses belonging to the Sri Lanka Transport Board, which comes under the Ministry of Transport of the Central Government and hence not issued route permits. Besides this there are 67 buses which have been issued permits for inter-provincial services starting from or ending at towns within the province. However services to destinations north of Medawachchiya are just resuming after disruptions due to the conflict. It is anticipated that there will be around 200 inter-provincial buses operating mainly to Colombo, Kandy, Trincomalee and Batticaloa by the end of the year. The Uturu Mituru program to rebuild the railway to Jaffna and to Kankesanthurai has commenced and scheduled to be completed by end of 2010. The railway presently operates 5 passenger trains daily to Vavuniya of which 2 are intercity express passenger services which take around 6 hours.

*85 Central Bank, Sri Lanka*
7.2.2 On-going Projects

7.2.2.1 Uthuru Wasanthaya

Soon after ending the humanitarian operations in the north last year, the Government appointed a 19-member Presidential Task Force to handle the “Uthuru Wasanthaya” Program which aims to implement a set of short-term and long term provincial development programs aimed at rapid resettlement and re-development. The Ministry of Highways and the Ministry of Provincial Councils and Local Government have identified several roads in the national and provincial networks to develop under the Uthuru Wasanthaya program for which foreign funding sources have been identified. Most of these projects are presently nearing completion of design with construction expected to begin shortly.

7.2.2.2 Roads Development

Presently special attention is given to the rehabilitation of 5,600 km length of rural roads under the Uthuru Wasanthaya program of the Government. In addition to this there are an estimated 2,000 km of roads belonging to the Irrigation Department and other government agencies which are also used as public thoroughfares. The section of the A9 Kandy-Anuradhapura Jaffna road from Rambewa southwards to Galkulama and from Thandikulam northwards to Jaffna is currently in design stage and construction is to be implemented under the Uthuru Wasanthaya Program. The rehabilitation of the A32 has also been initiated under Stage 1 of the Uthuru Wasanthaya Program. It includes rehabilitation of the road from 17 km to 108 km. Moreover, the Ministry of Nation Building has also invested Rs 150 mn in 2009 for the provincial roads in Vavuniya CE division to bring conflict affected roads into motorable condition.

In an attempt to strengthen connectivity by road to the NP from the south, an alternative route is being developed via Padeniya by improving the Padeniya-Anuradhapura road and connectivity between Padeniya and the proposed expressway network. This will reduce exiting travel time between Jaffna and Colombo from 10 hours to 7 hours. Moreover, construction is on going to improve connectivity to the east by improving the road between Mullaitivu and Trincomalee and by improving the road between Mannar to Puttalam via Wilpattu.

There are several funding applications to construct bridges between Sanguppiti, Aralay and Velanai, Kayts and Karainagar and between Kurikadduwan and Nainativu. Also, it is expected to construct a coastal road from Eastern Province to Jaffna peninsula. It is expected that with the completion of road improvement the connectivity between Pottuvil and Pulmodai along the eastern coastal line will be established providing continuous land transport along the coast of the Eastern Province. The extension of the coastal connectivity up to Northern Province capital Jaffna
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is expected to greatly benefit the future economic development of the country. The coastal belt has great potential for tourism and industrial development and related activities.

The funding has been committed for the improvement of two links of this connectivity under the “Uthuru Wasanthaya” programme. The road section from Kokilai to Mullaitivu [this includes Kokilai – Mullaitivu (B297) road and Mullaitivu to Mullaitivu – Chalai road junction on Paranthan – Mullaitivu (A035) road and Kadaikadu to Chundikulam of Maruthankerny – Chundikulam road] has been awarded under Chinese funding.

7.2.2.3 Uthuru Mituru Railway Development

The Governments’ Uturu Mituru program to restore the line to Jaffna has commenced with local donations and Indian assistance. It is envisaged that with the restoration of rail track the once popular rail travel between Colombo and Jaffna would once again be restored especially since travel time is expected to reduce to 6 to 7 hours by intercity express. Steps are also being taken to restore the connection to Mannar from Medawachchiya.

7.2.3 Issues

With the rapid development of infrastructure there is a need for an integrated transport plan to be in place that would determine the most optimal manner in which the transport needs that would arise as a result of the development could be met. Presently there is attention on building the infrastructure such as roads, bridges and railways. However, with the opening up of the Ports at Kankesanthurai and Point Pedro as well as the Palalli airport there is need to determine the manner in which both goods and passenger transport should be organized in the province. This should take into account the need for long-distance travel as well as local travel. The potential for heavy economic activity in Jaffna and Vavuniya is expected to give rise to the need for sound urban transport planning in these areas.

The area also holds potential for popularization of non motorized travel. Rural-urban linkages, school transport, goods transport, setting up of logistics centers and warehouses, multi modal centers are all aspects that need to be urgently studied.

As a follow up of these activities there would be necessarily in several areas for consequent infrastructure investment such as for; (a) urban transport management, (b) multi modal passenger terminals (c) multi modal logistics centers and (d) missing road links.

7.3 Eastern Province
The Eastern Province (EP), along the eastern seaboard of Sri Lanka is bordered by the Northern, North Central and Uva provinces. It has three administrative districts i.e. Trincomalee, Batticaloa and Ampara named after the respective capital cities.

Trincomalee also called Trinco has a natural deep-water harbour considered as being the 5th largest in the world. It has attracted sea farers like Marco Polo, Ptolemy and Sea Traders from China and East Asia since ancient times as early as the 5th century BC. The Portuguese, the Dutch, the French, and the English, each held this harbor in turn, after fighting fierce sea battles over it. However, with Colombo becoming the commercial hub port, there has been little development of the harbor or that of the Trincomalee area. Nevertheless plans are under way to develop Trincomalee as a commercial seaport. Other than three industries namely flour processing, cement manufacture and oil storage facilities in China Bay adjacent to the harbor, the economic life of the district is mostly based on agriculture, animal husbandry and fisheries. Trinco however was also a popular tourist location combining the attractions of beaches, culture and heritage.

Batticaloa is the provincial capital and follows Trincomalee in its basic economic patterns. Ampara District also resembles Batticaloa as a rich paddy farming area extending all the way to the southern most towns of Pottuvil and Okanda. The beaches of the Eastern Province covering all districts have been popular with tourists who are still seen in these parts even in spite of limited access at present.

The Eastern Province has been subject to disruptions to social and economic life due to armed conflicts over the last two decades. With the Government taking full administrative control of the entire province and the establishment of the elected civil administration in 2006/7, the foundations are now being laid for rapid infrastructure development within the province.

### Table 7-4: Geographic and Demographic Details of Eastern Province

<table>
<thead>
<tr>
<th>Feature</th>
<th>Eastern</th>
<th>Island-wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (sq km)</td>
<td>9,996</td>
<td>65,610</td>
</tr>
<tr>
<td>Road Density (km/km²)</td>
<td>1.02</td>
<td>1.5</td>
</tr>
<tr>
<td>Population (mn)</td>
<td>1,461</td>
<td>18,750</td>
</tr>
<tr>
<td>Population Density (persons/sq km)</td>
<td>146.1</td>
<td>296</td>
</tr>
<tr>
<td>GDP (Rs Mn), 2007</td>
<td>177,863</td>
<td>3,577,438</td>
</tr>
<tr>
<td>Per capita income (2007, SLR/year)</td>
<td>119,131</td>
<td>178,783</td>
</tr>
<tr>
<td>Unemployment Rate, 2006</td>
<td>8.4</td>
<td>8.9%</td>
</tr>
</tbody>
</table>
Primary Industries
Agriculture (rice), Livestock
Manufacturing, Plantation (Tea, rubber, coconut), tourism

Source: Central Bank, Sri Lanka

7.3.1 Current Status

7.3.1.1 Road Network and Traffic Volume

The road network in the Eastern Province consists of 857 km of National Roads, 1,099 km of Provincial Roads and around 8,450 km of rural and feeder roads.

The density of national roads in the Eastern Province is 0.11 km/sq. km. The road network within the Eastern Province is one of the poorest in the country. Moreover, a substantial portion of coastal roads were badly affected by the Tsunami in 2004. Some 17.5 km of roads have been rehabilitated in 2007 and Komari, Periyakallar and Koddiakallar causeways were completed under the Japan Grant Aid.

- Trincomalee, Batticaloa and Ampara are connected directly to Colombo and many other provincial capitals through the national road network. The railway network also serves both Trincomalee and Batticaloa districts with around 2 trains operating to Colombo from each of these district capitals. There are around 130 inter-provincial bus services per day between the EP and Colombo. The distance to Trincomalee is 257 km, to Batticaloa it is 303 km while to Ampbarai it is 350 km. The distance to Trincomalee from Colombo can be covered within 6 to 7 hours by road and about 8 to 9 hours by rail at present. In the case of Batticaloa travel time increase by at least 1 hour, while in the case of Ampara and most areas within the Ampara district, travel from Colombo would be in the range of 8 to 10 hours. There is no rail access to Ampara District.

- The roads in the national network within the EP mostly carry traffic volumes of less than 5,000 vehicles per day. On provincial roads, the volumes are generally in the range 500 to 1,000 vpd. The typical vehicle composition is around 30% four wheeled or larger vehicles. The typical average speeds on the national roads are between 35 to 45 km/hr while that of the provincial network are in the range of 20 to 30 km/hr.

- The proposed national expressways program includes the Colombo-Kandy Alternate Highway-a 4 lane expressway which will reduce travel times to Trincomalee and

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86 TransPlan Traffic Estimation Model, University of Moratuwa, 2008
Batticaloa by at least 1 hour. In the case of access to Ampara, the shortest route will be by taking the Southern Highway and the proposed Extension to the Southern Highway up to Hambantota, where access time from Colombo would reduce to 6 to 6 ½ hours.

- However these projects, some of which are still in the pipeline are likely to take several more years to be completed. Improved connections are likely to reduce cost of transport between the predominantly rice producing areas in the EP and the Western Province which is the dominant consumption area. This will open up more economic opportunities for agricultural production as well as mobility for people in the EP to seek employment in other areas.

### Table 7-5: Vehicle Fleet in Eastern Province, 2007

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Fleet EP</th>
<th>% by National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omnibuses</td>
<td>619</td>
<td>3.9</td>
</tr>
<tr>
<td>Private Coaches</td>
<td>334</td>
<td>1.3</td>
</tr>
<tr>
<td>Dual Purpose Vehicles</td>
<td>2,216</td>
<td>1.2</td>
</tr>
<tr>
<td>Private Cars</td>
<td>1,286</td>
<td>0.5</td>
</tr>
<tr>
<td>Land Vehicles</td>
<td>9,800</td>
<td>10.6</td>
</tr>
<tr>
<td>Goods Transport Vehicles</td>
<td>3,867</td>
<td>2.1</td>
</tr>
<tr>
<td>Motor Cycles</td>
<td>64,090</td>
<td>5.7</td>
</tr>
<tr>
<td>Three-wheelers</td>
<td>9,617</td>
<td>2.8</td>
</tr>
<tr>
<td>Others</td>
<td>262</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td>92,091</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Source: Central Bank, Sri Lanka

7.3.1.2 **Vehicle Fleet**

In 2007, the estimated fleet of motorized vehicles in Eastern Province was 92,091 and this accounted for 4.1% of the total fleet in Sri Lanka. From 2003 to 2007, the vehicle fleet in EP increased at an average annual growth rate of 8.5%. However most of this growth has been from motor cycles and 3 wheelers where the ownership percentage in EP is higher than the national average, while the growth of 4 wheelers and larger vehicles, which have lower representations in EP compared to the national averages, have been marginal. This indicates that the population is

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87 *Central Bank, Sri Lanka*
becoming motorized by acquiring low cost private modes of transport. This province due to its intense agricultural nature has the highest percentage of land vehicles among all provinces.

The issue of annual revenue licenses for motor vehicles registered to addresses within the province and the collection of such revenues is carried out by the Provincial Motor Traffic Department. The department does not have legal authority to perform new registrations or transfer of ownership of vehicles which is handled by the Commissioner of Motor Vehicles under the Central Government. Bicycles are the most numerous type of vehicle in the province. Household census indicates that 71.7% of households in EP have a bicycle, thus numbering nearly 230,000 in the province. As compared to most other areas in the country, a higher percentage of women are seen to ride motor cycles in EP, especially in Trincomalee and Batticaloa Districts.

### 7.3.1.3 Bus Transport

The Provincial Councils were established in 1989 under the 13th Amendment to the Constitution. However due to the unsettled political situation in the east, the Eastern Provincial Council was dissolved in June 1990. It has been re-established only from 1st January 2008. During the period without a council, the administration of the motor vehicle fleet was done by the Provincial Commissioner of Motor Traffic under the Chief Secretary. The regulation of omnibus transport within the province was made possible through the National Transport Commission Act which bestowed powers to the Government Agents of the respective districts within the province to issue permits on behalf of the Commission and to carry out other administrative functions. The statute to set up a Provincial Road Passenger Transport Authority to regularize the provision of omnibus transport is being drafted at present.

There are a total of 500 valid route permits for intra-provincial bus services within the province issued by the respective Government Agents. There are in addition to the 205 buses belonging to the Sri Lanka Transport Board, which comes under the Ministry of Transport of the Central Government, and hence are not issued route permits attached to bus depots within the province. Besides this there are a further 190 buses which have been issued permits for inter-provincial services starting from or ending at towns within the province. The overall penetration of intra-provincial public transport in the east is one of the lowest at 278 buses per million people, while the national average is around 800 buses per million people. One of the key issues particular to the Eastern Province has been the cancellation of bus services due to poor condition of roads.

### 7.3.1.4 Rail Transport

Out of the three Districts in the Eastern Province, Ampara District is not served by rail. Railway is not a very popular mode of transport in the Province. Poor and unreliable services are the reason for the poor demand for railway. Potential for development of the railway is very high. For
instance, the markets for the production of two large factories ie cement, and flour in Trincomalee is in other provinces. Further, the Eastern Province produces surplus agricultural products. Markets for these products are in outside the province. With the commencement of economic development activities passenger demand will also increase.

7.3.1.5 **Para Transit**

There are no regulatory provisions as yet for other vehicles operating within the province for fee or reward such as school vans, office vans, and three wheelers or taxis. Therefore, most of these para-transit services ranging from trucks carrying passengers, to other informal arrangements where small quantities of agricultural products are transported between rural areas and town centres or markets continue unregulated. Two-wheeler or hand tractors are also used extensively, as are small trucks and vans. Three Wheelers of which there are nearly 10,000 vehicles registered within the province, provide passengers services within town areas and in rural areas, especially where regular public transport does not operate or after such services cease in the evenings.

7.3.2 **Ongoing Projects**

There are in the Eastern Province a total of 17 on-going and firmly committed national road projects estimated at Rs. 24.6 billion a further 7 on-going and committed bridge and road projects estimated at Rs 6 billion which are expected to be completed in 2010. In addition there are the projects that have been proposed under the Negenahira Navodaya (NN) program which are summarized in Table 7-6 estimated at Rs 24.8 bn.

**Table 7-6: Proposed National Road and Bridge Projects under NN**

<table>
<thead>
<tr>
<th>Program/Projects</th>
<th>TEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outer Circular Highways-Trincomalee (67km,4lane)</td>
<td>10,500</td>
</tr>
<tr>
<td>Puttalam Trincomalee road from Anuradhapura to Trincomalee (103 km.,2lane)</td>
<td>5,600</td>
</tr>
<tr>
<td>Mahiyangana-Dimbulagala-Dalukkane Road (72.6 km., 2 lane)</td>
<td>1,814</td>
</tr>
<tr>
<td>Mahaoya-Padiyathalawa Road (26 km,2lane)</td>
<td>1,170</td>
</tr>
<tr>
<td>Ampara-Uhana-Mahaoya Road(57.8kms, 2 lane)</td>
<td>2,892</td>
</tr>
<tr>
<td>Ampara-Ingingiyagala Road (21.8 km, 2 lane)</td>
<td>979</td>
</tr>
<tr>
<td>Padiyathalawa-Mahiyangana Road (29.1 km, 2 lane)</td>
<td>1,457</td>
</tr>
<tr>
<td>Bibile-Pittakumbura- Namal Oya-Ingingiyagala Road (10.3 km, 2 lane)</td>
<td>400</td>
</tr>
<tr>
<td>Total-Proposed National Road Projects</td>
<td><strong>24,812</strong></td>
</tr>
</tbody>
</table>

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88 Road Development Authority, Planning Division
In addition to this there is an allocation of Rs 1,025 million for provincial roads for the year 2010. Furthermore, the Sri Lanka Railways has been allocated a sum of Rs 6,541 for rehabilitation of rail track and improvements to signals and communications between (a) Gal Oya and Trincomalee and (b) Gal Oya and Batticaloa as well as for station development.

7.3.3 Issues

• In the EP, around 65% of the road network is in very poor condition. This is high when compared to most other provinces\(^9\). However it is clear that the PRDD is not in a position to conduct the desired routine and periodic maintenance regularly, due to the inconsistency and inadequacy of funding available to them. This has led to some roads staying in poor condition for several years before they are rehabilitated, depriving provincial town centres and regions of the desired reliability in access and mobility.

• Moreover, the accelerated infrastructure development within the province has also resulted in higher axle loads on most roads and both intensity and regularity of maintenance requirements are likely to increase. Hence it is clear that the PRDD is not in a position to conduct routine and periodic maintenance due to the inconsistency and inadequacy of funding source.

• Poor accessibility and mobility for both inter province and intra province due to the poor connectivity within and to other provinces due to increase in travel time and operational cost due to shortage of transport services.

• The railway track has not been rehabilitated for a long period. Hence special restrictions have been introduced. For instance, 31% of the track is under speed restrictions. The Signaling and Communication system in the Eastern Province are outdated. There are frequent failures of signaling and radio communication system.

• For the provision of better transport services, strengthen, coordination between Railway and bus services as well as to airports at Batticaloa and China Bay.

Since many of the towns in EP are more than 7 hours from Colombo or from the BIA at Katunayake, it is important to develop air travel to the EP. In this respect development of airports in and around urban centres as well as tourism spots would be advantageous. As such developing both Batticaloa and China Bay airports as well as Amparai would be strategic for transport sector development for EP.

\(^{9}\) Source: Report by PRDD, October 2008
7.4 Western Province

The Western Province (WP), along the western seaboard of Sri Lanka is bordered by the Southern, North Western and Sabaragamuwa provinces. It has three administrative districts i.e. Colombo, Gampaha and Kalutara and 33 divisional secretariats. Out of Sri Lankan’s urban population, 54.6% reside in Colombo district, while Gampaha and Kalutara accounts for 14.6% and 10.6% urban population. Colombo district is considered to be the most urbanized district in Sri Lanka, while the other two districts carry higher percentage of rural population. Colombo city is considered to be the centre of the economy and hence the busiest city in Sri Lanka. Government offices, private offices, factories, hospitals, hotels, schools and the harbor located within the Colombo city generates higher travel demand towards the city core.

The Western Province extends over 3,684 sq km (5.62% of the land surface of Sri Lanka) with a population of 5,381,197 (28.67% of the country) thus becoming the smallest in terms of the area and the highest in terms of the population leading to the highest population density of 1460.7 persons/sq km among Sri Lanka's nine provinces. Provincial ethnic composition is made up of 84.2% Sinhalese, 7.2% Tamils, 7.0% Moor and others. Its religious profile makes it predominantly 73.3% Buddhist, 5.1% Hindu with 8.2% Islam and others.

The Western Province is considered to be the most developed province in the country. Comparisons of provincial and national level basic socio economic parameters in respect of the lowest poverty head count index, highest per capita incomes and lower unemployment rate should be noted as being among the relevant indicators.

Western Province records the Lowest Poverty Head Count Index in Sri Lanka (statistics for Northern Province is not available). Even though it is reported as 8.2 %, which is approximately half of the national average of 15.2%, it still translates to around 441,000 people falling below the poverty line which in fact exceeds the actual number of poor in Uva province even though Uva has a much higher Poverty Head Count Index.

Western provincial share of the national GDP is around 48.4% and has recorded the highest per capita income of Rs 303,536 (approx USD 2,500) in 2007. But the rate of unemployment and hence the unemployed population is still higher when compared to other provinces. This indicates that though Western province has reached a certain level of economic development, it is still to be developed in social aspects.
7.4.1 **Current Status**

7.4.1.1 **Public Transport**

The RPTA of the Western Province is authorized to issue route permits for intra-provincial buses and for regularizing bus transport within the province. Currently there are around 6,540 private omnibuses operating with permits issued by the RPTA of the WP. In addition there are around 1,413 state owned buses belonging to the Sri Lanka Transport Board, which comes under the Ministry of Transport of the Central Government which are not issued route permits but are also operating within the province. Besides this there are another 865 buses issued with permits by National Transport Commission for inter-provincial (long-distance) services starting from within the province.

The National Transport Commission provides financial reimbursements to 213 dedicated school bus trips within the WP under the ‘Sisu Saeriya’ program. There are also a further 109 dedicated rural bus services under the ‘Gami Saeriya’ program. Both programs are delivered through certification of delivery and attainment of standards monitored by a local user committee. These provide important connections between rural and town centres within a province. These services are expected to be significantly increased this year.

Other vehicles operating within the province for fee or reward such as school vans, office vans, and three wheelers or taxis are regulated in the WP, by Act No 3 of 2006 and by Gazette No 1518 of 2007. Three Wheelers of which there are nearly 141,559 vehicles registered within the province, provides passenger services within town areas and in rural areas, especially where regular public transport does not operate or after such services cease to operate in the evenings. These are mostly unregulated except for insurance and annual licensing as motor vehicles.

The railway network also covers much of the WP. Along the four corridors namely Mainline, Coastal line, Kelani Valley line and Puttalam line, railway provide an important service during the peak period as it acts as a commuter service from the outer suburbs to central Colombo. Similar to the road network which has nodal centre in Colombo, all railway lines radiate from Colombo, this covering over 200 km within the province. The railway carries around 210,000 passengers across the city boundary every day which translates to around 13% of all passenger movements. Its contribution to freight transport is much less at around 3%.

7.4.1.2 **Provincial Vehicle Fleet**

WP has the highest number of registered motor vehicles in Sri Lanka. Of a total estimated operational fleet of 2.2 million vehicles in 2007, it is noted that 967,097 or around 43.5 % of vehicles are registered in WP. It is noted that approximately half of the fleet of vehicles in WP are
two-wheelers and three-wheelers. The motor cycle is becoming a popular mode of transport due to its low cost and maneuverability even on roads with poor surface condition.

Table 7-7: Vehicle Fleet in Western Province (2007)

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>WP</th>
<th>% of National Fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omnibuses</td>
<td>7,124</td>
<td>45.0</td>
</tr>
<tr>
<td>Private Coaches</td>
<td>12,096</td>
<td>48.2</td>
</tr>
<tr>
<td>Dual Purpose Vehicles</td>
<td>106,571</td>
<td>58.9</td>
</tr>
<tr>
<td>Private Cars</td>
<td>182,421</td>
<td>72.4</td>
</tr>
<tr>
<td>Land Vehicles</td>
<td>16,793</td>
<td>18.2</td>
</tr>
<tr>
<td>Goods Transport Vehicles</td>
<td>83,891</td>
<td>46.1</td>
</tr>
<tr>
<td>Motor Cycles</td>
<td>414,770</td>
<td>36.8</td>
</tr>
<tr>
<td>Three-wheelers</td>
<td>141,559</td>
<td>41.4</td>
</tr>
<tr>
<td>Others</td>
<td>1,872</td>
<td>32.6</td>
</tr>
<tr>
<td>Total</td>
<td>967,097</td>
<td>43.5</td>
</tr>
</tbody>
</table>

The trunk roads of the national network such as A1, A2, A3, A4 close to the boundary of the Colombo city carries traffic volumes of between 60,000 to 80,000 vehicles per day. But the volumes of traffic on these same roads are in the range of 15,000 to 20,000 at the provincial boundary. On provincial roads the traffic volumes are generally in the range 3,000 to 10,000 vpd and for local authority roads it was found to be in most instances between 100 to 1,000 vpd. The typical vehicle composition on national roads within the province is that around 65-70% of vehicles are four wheeled or larger. The typical average speeds on the national roads are between 15 km/hr within the city, to 40 km/hr away from the city while that of the provincial network are in the range of 15 to 40 km/hr depending on the terrain and condition of road.

7.4.1.3 Provincial Road Network

The total road network in WP is comparatively larger when compared to other provinces. The length of National Roads maintained by the RDA in the Western Province is estimated as 1,510.8 km of which 254.59 km are A Class roads and 1256.2 km of B Class Roads.

7.4.1.3.1 National Roads

Of the National Roads, around 73% of the length of roads in the province is less than standard 2 lanes, while 6% is 4-lane width or wider. The balance 21% of the road length falls within 2 to 4

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90 Source: Central Bank of Sri Lanka, 2007
91 TransPlan Traffic Estimation Model, University of Moratuwa, 2008
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lanes. The condition of these roads as measured by the International Road Roughness Index (IRI) shows that less than 2% of the length of the network is in very good condition with an IRI of 2 or less and 92% of the length is in poor condition with an IRI of 4 or more.\textsuperscript{92}

7.4.1.3.2 Expressways

**Colombo – Katunayake Expressway Project**

The Colombo – Katunayake Expressway starts from the New Kelani Bridge at Peliyagoda and connects with the Airport access road at Katunayake. The total length is approximately 26 kms. It is to be constructed with 6/4 lane dual carriageway facility with 4 Interchanges.

The Project Loan Agreements have been signed between the Ministry of Finance & Planning and the EXIM Bank of China. Land Acquisition & Resettlement works are nearing completion.

**Outer Circular Highway (OCH)**

The Outer Circular Highway is a ring road around the city of Colombo and linking all major roads radiating from Colombo. One of the major objectives of this highway is to reduce traffic congestion within the city of Colombo by providing a high mobility road outside the city limits for through traffic from South to North and vice-versa.

The highway starts at Kerawalapitiya and Traverses through Mattumagala, Kadawatha, Kaduwela and joins the Southern Highway at Kottawa. The length of the highway is 29.1 km. The highway is initially to be constructed as 4 lane dual carriageway with provision for widening to 6 lanes. The estimated project cost is Rs. 82.6 Billion.

7.4.1.3.3 Provincial Roads

Length of the provincial road network in Western Province is 1,975 km, of which 849 km classified under C class and 1,126 km under D class. There are 227.8 km of recently surfaced Double Bitumen Surface Treated DBST roads. At present around 30% of the provincial road network is termed to be in poor condition. Only 15% of the network is in very good condition. However in general the network is considered to be comparatively in satisfactory motorable condition.

\textsuperscript{92} Source: TransPlan Database, University of Moratuwa
7.4.1.3.4  Local Authority Roads

It is estimated that there are 11,923 km administered by the different local governments (MC, UCs and PS) in Western Province. But the local authorities especially the Pradeshiya Sabhas, do not maintain records of the condition of their road network. Hence an assessment of the condition of the roads is not possible. Visual observation indicates that other than the larger municipal councils such as Colombo all other municipal councils as well as urban councils are not maintaining their roads on a regular basis. It is most likely that over 50% of the road length may be considered to be in poor condition. In the case of Pradeshiya Sabhas this may be even more with between 2/3rd and 3/4th of the road lengths being considered to be in poor condition.

It is estimated that between 5-10% of these gravel roads now have been concreted under the governments Gama Neguma village upliftment program.

7.4.2  On going Projects

7.4.2.1  Projects in JICA Study

JICA study which is the most recent transport study in CMR had short listed projects covering both transport and road sector and shown in Table 7-8. Several projects in this short list are now in pipeline. Even though JICA project recommendations were not taken up in a follow up project, many of them have been included in locally funded projects as shown in the table.

<table>
<thead>
<tr>
<th>Policy Coordination and administrative capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Technical Assistance to establish the Presidential Committee on Urban MoT Transport(PCUT) and secondary Co-ordination Mechanism (Cabinet paper approved in 2008 and awaiting constitution and calling of meeting)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public Transport System Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>2  Technical Assistance to lay groundwork for bus route concession projects.(NTC has commenced this from 2005 for negative concessions and from 2007 for positive concessions)</td>
</tr>
<tr>
<td>3  Project to increase inter-modal and intra modal coordination by timetable</td>
</tr>
</tbody>
</table>

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93 Commissioner of Local Government, Western Province
94 Source: The Study on Urban Transport Development in CMR, 2006
creation, implementation and enforcement. *(Preparation of Bus Timetables for inter-provincial routes in progress, ICT based information system to be completed in 2010 by NTC)*

4 Strengthening of NTC on Transport Planning and Operation/Management. NTC
   (Internal restructuring carried out, but specialised training outstanding)

5 Strengthening of SLTB on Operation/Management *(MIS system and centralised management being implemented)*

6 Develop a training centre at WPRPTA and undertake strengthening of WPRPTA, private bus owners and crew. *(No progress)*

7 Develop bus stop facilities on high demand corridors *(No progress)* CMC, RDA

8 Bus Rapid Transit from Dematagoda to Battaramulla *(BRT Study completed in 2009 by NTC, awaiting policy decision to advertise for EOI)* UDA

9 Rehabilitation of railway siding and Rail facilities *(No progress)* SLR

10 Rehabilitation of signalling and communication system *(In progress)* SLR

11 Strengthening of SLR on Management and Operations and development of a strategic business unit to implement pilot project. *(No progress)*

12 Strengthen the WPRPTA to implement and strengthen the three wheeler services bureau and outline three wheeler regulations *(No Progress)*

13 Project to improve school service *(commenced in 2005 and presently has 840 services island wide and over 300 in Western Province)* NTC

**Urban Road Systems**

14 Outer Circular Highway (OCH) construction *(Design and acquisition in progress for all but northern most section)* RDA

15 Baseline road construction Phase III *(Temporarily suspended and being reviewed)* RDA

16 Marine Drive Extension construction *(Bambalapitiya to Ramakrishna Rd completed and opened for traffic in 2007)* RDA

17 Duplication Road Extension construction *(No progress)* RDA

18 B152 widening & improvement of access roads B425 and Eppamulla-Pamunugama road RDA

19 Improvement of Colombo-Horana Road *(Design Stage)* RDA

20 Improvement of Kirulpone-Kottawa road RDA

21 Improvement of Kandy road-Phase I (construction of 1 flyover and 1 interchange) RDA

22 Improvement of Kandy road Phase II RDA

23 Improvement of Rajagiriya-Ratmalana road *(No Progress)* RDA

24 Improvement of road from Pannipitiya to Battaramulla *(In Progress)* RDA

25 Improvement of Nugegoda-Ethul Kotte road via Jubili Post *(No Progress)* RDA

26 Road 33 – Improvement of Balummahara- Biyagama-Malabe road *(Design)* RDA
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7.4.2.2 Greater Colombo Transport Structure Plan

A Fundamental Rights Case was filed by a private citizen in 2007 seeking cleaner air in the city and seeking court intervention to improve the transport system and reduce pollution. The Action
Plan prepared and submitted to Supreme Court after obtaining Cabinet approval in January 2008 and its current status is given in the following table.

### Table 7-9: Projects under the Greater Colombo Transport Structure Plan

<table>
<thead>
<tr>
<th>Activity/Objective</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conduct a wider discussion with Stakeholders on the strategic plan.</td>
<td>Item is completed.</td>
</tr>
<tr>
<td>2. Formulate Urban Transport Policy as a part of Transport Policy.</td>
<td>Item is completed.</td>
</tr>
<tr>
<td>3. Set up Urban Traffic Coordinating Mechanism for coordination and implementation of strategic plan.</td>
<td>Item is completed.</td>
</tr>
<tr>
<td>4. To introduce well designed bus lanes in the new one-way systems and other areas suitable for such operations.</td>
<td>Final designs for Reid Avenue were completed. Defense Ministry clearance was not granted.</td>
</tr>
<tr>
<td>5. To ensure the reduction of empty truck movements to and from the city and to encourage the movements of heavy goods vehicles during night times and outside of peak traffic times.</td>
<td>Sri Lanka Ports Authority has developed a plan which is being implemented separately.</td>
</tr>
<tr>
<td>6. To introduce premium bus services in Colombo and suburbs. To divert private vehicle users to a more comfortable public transport system</td>
<td>Pilot Project still operating on Galle Road.</td>
</tr>
<tr>
<td>7. To develop the Bastian Mawatha Bus Terminal for long-distance passengers. To reorganize the circulation of buses within the City Centre.</td>
<td>The design for the bridge connecting D.R. Wijewardena Mawatha and Olcott Mawatha is being carried out by the RDA.</td>
</tr>
<tr>
<td>8. Operation of at least 2 New Multi Modal Terminals and to commence Park and Ride services. To terminate long-distance buses at peripheral stations and to enhance public transport connectivity and transfer</td>
<td>A land belongs to SLR has been identified for a Multi Modal Passenger Terminal at Dematagoda close to the Railway Station. Construction of the terminal is expected to commence in the year 2010 when funds are allocated.</td>
</tr>
<tr>
<td>9. Reorganize the urban bus routes. To reduce overlapping routes and the number of buses terminating in the city centre &amp; improve the quality of the bus services.</td>
<td>Time tabling of buses in WP not progressing. Long distance bus time tabling proceeding.</td>
</tr>
<tr>
<td>10. To study and implement flexible work hours and staggered work hours. To reduce traffic peaks by smoothening demand</td>
<td>A Cabinet Paper on Flexible work hours and staggered work hours is to be submitted to the Cabinet of Ministers.</td>
</tr>
</tbody>
</table>
11. Amendmments to the National Transport Commission Act No. 37 of 1991 To enable the conversion of present single bus operators to a professionally managed bus industry and to make use of buses more efficient and thereby reduce the number of buses.

The final draft of the National Transport Commission Amendment bill has been approved by the Attorney General.

12. Transport on Timber, Ready Mix (Cement Mixture) during peak hours

Item is completed.

13. To develop an integrated transport - land use development plan to complement the strategic initiatives to reduce vehicular traffic in the city.

UDA is currently implementing the decisions as proposed.

a) Not to permit any new International Schools (ISs) within residential areas of Colombo Municipal limits.

b) To identify ISs which have violated any conditions imposed at the time of approval and become nuisance to the residents thus making case for relocation.

c) Paper notice notifying the public on the UDA programme on International schools located within CMC area as per the decision of the Supreme Court is now ready & will be published soon.

d) Requests made by few schools for expansions of activities which effect traffic have been turned down.

14. Operation of at least one Logistics Hub. To reduce heavy goods vehicle entry

Included in Long-Term Plan of the SLPA.

15. Operation of Bus Rapid Transit (BRT) between Battaramulla and Dematagoda for the purpose of reducing vehicles on the Parliament Road and Cotta Road and in particular to reduce buses by using high capacity BRT vehicles.

The report on the conceptual design of BRT has been compiled. A Cabinet Paper on this is to be submitted in due course.

16. Allocation of Rs 10 billion for year 2009 for urban transport strategic plan to systematically develop the traffic management plan.

The Treasury has agreed to allocate Rs.50 Million for 2009 for design and study of identified activities under each project are given below. Monthly Meetings chaired by Secretary, MOT are held to follow up on following 5 long term projects.

1. Construction of a bridge connecting D R Wijewardena Mawatha and Pettah: Location of the Bridge has been changed due to existing ground condition and detailed design will be done for the new location


3. Electronic Road Pricing System for Colombo:
projects with the assistance of Foreign Expertise. All the selected projects are long term projects and multi-year budgetary allocation would be required.

17. Improve Management of Sri Lanka Transport Board. To strengthen the management structure along the lines set out in the SLTB Act of 2005. Thereafter to improve urban services especially school and late night services.

18. Improve services of Sri Lanka Railways. To strengthen rolling stock position and thereby offer more capacity to urban commuters to move from road to rail.

7.4.2.3 Other Projects

The capital projects for which funding has been sought and approved for 2010 for the WPRTA are given in Table 7-10.

Table 7-10: New Capital Projects for 2010 (WPRTA)\textsuperscript{95}

<table>
<thead>
<tr>
<th>Project/Program</th>
<th>Investment (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction of Head-office building</td>
<td>80,000,000</td>
</tr>
<tr>
<td>Study on Auto-A/C Three-Wheelers for CMR</td>
<td></td>
</tr>
<tr>
<td>Driver/Conductor Insurance Program</td>
<td></td>
</tr>
<tr>
<td>Road Inspector-Training Program</td>
<td>29,000</td>
</tr>
<tr>
<td>Training Program for Regional Managers</td>
<td>15,400</td>
</tr>
<tr>
<td>Training Program for field officers on Timetables</td>
<td>65,000</td>
</tr>
<tr>
<td>Workshop on Productivity for Office Assistants</td>
<td>19,000</td>
</tr>
<tr>
<td>Computer training program for clerical staff of Operation Division</td>
<td>10,500</td>
</tr>
</tbody>
</table>

Preliminary Study has been completed.

4. Area Traffic Control (ATC) System: Road Development Authority has already requested Japanese assistance for this project.

5. Internal Dry Container Port (ICD): This project is part of the National Policy developed by SEMA. School Services have been increased to 552 services island wide, under “Sisu Sariya” Program. 15 “Nisi Sariya”, Night Services have commenced in urban cities in the Western Province. Night Services are being planned together with private operators as well.

- Activities are being taken to strengthen railroad coordination at selected railway stations.
- Revisions of Train schedules carried out in response to passenger requests.

\textsuperscript{95} Western Province Road Passenger Transport Authority
7.4.3 Issues

Problems and issues in WP are identified and categorized under each sub-sectors of transportation and road sector. However the most of the problems and issues, except the issues in urban transportation, are not confined to the CMR but are nation-wide.

Western Province has seen an explosion of transport activity caused by the concentration of economic activities in the province. This too is considered a result of the deficiency of the national transport network which does not provide fast connections between the key economic generators such as the port and airport and other provinces.

One of the strategies that have been pursued has been to build expressways between Colombo and the provinces passing through the province. As such the Colombo-Katunayake Expressway would run north of the city, while the Southern Highway would run south and the Colombo-Kandy Highway would run due north-east with radial connections identified as the Outer Circular Highway and the Baseline Road as the Inner Circular Highway.

7.4.3.1 Expressways

While expressways are expected to improve mobility between the city and the provinces, travel within the province is expected to further deteriorate with more transport activity passing through the province and entering Colombo where more congestion is expected. A possible solution would come from a north-south by pass link at the periphery of the WP so that traffic is kept away from the WP altogether without making such places too far for commuting from within the WP or have trading links within the province. Such a road could start from Alawwa and extend to Waskaduwa using existing roads developed to 2 or 4 lane standard via Mirigama, Kirindiwela, Meepe and Bandaragama. Such a road maybe called the Periphery Road for WP. This project if coupled with a land use integrated development wherein important traffic generators and employment generators are located at strategic locations could have a big impact on reducing the transport load within the province as well as splitting the demand direction of traffic thus ensuring better utilisation of resources and greater profitability for transport services.

7.4.3.2 Masterplan for Public Transport

In a situation such as this, where building new roads or expressways within the city itself is impossible and widening of existing roads is also difficult, the only solution comes from improving public transport and making it attractive as a transport mode by choice.
The current status of bus and railway is inadequate to provide this type of attraction to people when their incomes increase. As such a strategic plan should be developed how the public passenger market share within the WP can be retained. This requires several steps:

- Identification of travel patterns and purposes
- Identification of requirement for direct bus and rail services and changes required to current system.
- Identification of most appropriate transfer locations including same mode and multi modal facilities.
- Identification of locations where park and ride facilities should be provided
- Identification of rapid transit facilities for medium and long term
- Identification of new urban transport services such as premium services, express services, school services, office transport etc.

### 7.4.3.3 Bus Transport

Private sector governs the road passenger transportation in the CMR carrying about 70% of road passengers. But as the private sector is completely profit oriented, they tend to operate more profitable schedules, leaving SLTB to cover unprofitable schedules. In addition, since the private sector participates to the industry through individual operators, road way competition for the revenue makes it unsafe and discomfort for the passengers. Even though there is an attempt to form private bus companies to prevent this problem; still it has not been succeeded.

The WPRTA has been developing some of the bus terminals in the Western province especially in 2009 when 4 terminals were rehabilitated at a cost of around Rs 70 mn.

### 7.4.3.4 Rail Transport

There are four railway lines radiating from Colombo serving the Western Province. Of these, the Main Line and the Coastal Line are well patronised especially during peak periods. The other two lines namely the Puttalam Line and the KV Line are single track and not as attractive as the others due to slow train speeds and frequencies. A total of around 80,000 passengers enter Colombo City by rail during an average working day. The railway stations even though placed at strategic locations in the town centres have not been developed as multi modal centres. Park and Ride facilities have not been promoted officially. The railway is currently limited by peak period capacity in carrying more peak period passengers. During the off peak it is not as attractive as road transport due to lower frequencies.

### 7.4.3.5 Para Transit

Three-Wheelers, school vans and other hired vehicles are becoming popular para-transit options in CMR. Especially Three wheelers introduced in 1990s are becoming more popular over the
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others due to its versatility especially in short distance travel in both rural and urban areas. Currently there is no institution with sole responsibility for regulating three-wheelers and other para-transit modes, either within the central or provincial government. This has caused a problem in that there is no one overseeing the three wheelers to make regulations to improve their service and use.

WP council attempted to implement the Three-Wheeler Service Statute. However the act was not passed, mainly because the three-wheeler operators strongly opposed to the development of oversight body. As there are number of accidents that involve in three wheelers, drivers are not well-versed in the basic road rules. On the other hand, insufficient quality of three-wheelers stands leads to further congestion on the roadway and sidewalks in already highly congested areas. The highly prioritize issues and problems are identified as follows

- Lack of institutional regulation in operation
- Oversupply of vehicles especially the three wheelers causing traffic congestion in urban areas
- Insufficient secondary infrastructure such as parking etc.
- Lack of awareness of road rules among operators and poor enforcement mechanism

7.4.3.6 Traffic Management and Safety

Traffic management and road safety becomes a vital aspect in CMR since it consist number of highly populated urban areas in the country. Especially the Colombo city is now becoming congested all throughout the day even in the late evening.

At present following major issues and problems are encountered by the urban areas especially commercial capital, Colombo resulting economic downfall in island wide.

- High travel demand resulting traffic congestion in peak periods
- Insufficient and inadequate traffic control measures
- Undisciplined road users
- Lack of road rule enforcement
- Lack of policy and Master Plans which integrate transport and land use together
- Indiscriminate on-street parking and inadequate off-street parking areas in urban areas
- Inconsistent design standards
- Poor pedestrian facilities
- Road side activities leading to traffic congestion

7.4.3.7 Road Sector

As in case of island wide, inadequate funding on road sector especially in maintenance leads to continuous deterioration of the condition of roads in WP. Even though relevant agencies make
higher investment on urban roads still it is not good enough to maintain satisfactory urban road network in CMR.

7.5 Uva Province

The Uva Province is one of the least populated provinces, with 1.2 million and includes two districts namely Badulla and Monaragala. It is located between 4 provinces namely, the Southern, Eastern, Central, and Sabaragamuwa provinces. Even though Badulla District has one-third of the land area of Uva, it has two-thirds of the population as the district capital in also Badulla city. Uva has been identified as having one of the lowest rates of economic growth and correspondingly one of the highest levels of poverty.

The economy of the province is mostly agriculture and plantations. Even though the national road network connecting the provincial centres within Uva and to its outside has been developed during the last several years, significant economic development is yet to follow.

The province is a potential tourist destination with many different attractions such as wild life national parks such as Galoya, Lunugamvehera and Yala lying partly within the province. There are scores of popular waterfalls including several popular ones such as Dunhinda Diyaluma and Rawana Falls also located inside the province. There are many other scenic attractions such as World End, Lipton’s seat and many other historical and cultural places of significance.

The province has a number of transport deficiencies that could be contributory to this situation. In terms of the diversity of the transport system, it has no airport or sea port due to the geography and location. There is no inland water transport system using waterways and the railway is not reliable as road transport and is much slower. Moreover, a substantial part of the province is in hilly terrain, so that the use of non-motorized transport is very much limited in scope. Hence, the entire economic progress of the province is heavily dependent on motorized road transport which again is constrained due to narrow winding roads in hilly or rolling terrain.

The land area of the Uva Province is 852,030 hectares. Badulla District is popular for vegetable cultivation while Monaragala is gaining popularity for its fruit cultivation. The majority of the population is also employed in the agriculture sector. The Badulla District is geographically in a hilly terrain at high elevations with different climate than Monaragala District which is in a flat terrain at a lower elevation.
7.5.1 Status

7.5.1.1 Regional Connectivity and Transport

The connectivity of the Uva Province to other parts of the Provincial Capitals (Eastern, Central, Southern and Sabaragamuwa) is by road transport. The Main Railway Line terminating at Badulla provides direct connectivity to Colombo and Kandy. However, rail connectivity is slower than road. Uva is connected to Colombo by two main roads namely by the A5 Peradeniya-Badulla-Chenkalady (PBC) road which runs through Badulla district and the A4 Colombo–Ratnapura-Wellawaya-Batticaloa (CRWB) road which passes through most of Monaragala district. The province is also accessible from Colombo through the A26 Kandy-Victoria and Randenigala Road.

The vehicle registration records indicate that there were about 71,729 vehicles registered within the province with half the vehicle fleet made of motor bicycles. Eighteen percent (18%) of the vehicle fleet is made up of trucks and land vehicles.

<table>
<thead>
<tr>
<th>District</th>
<th>Car</th>
<th>Motor Cycle</th>
<th>3 W</th>
<th>Vehicle Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Badulla</td>
<td>2,597</td>
<td>17,030</td>
<td>7,122</td>
<td>3,559</td>
<td>38,684</td>
</tr>
<tr>
<td>Monerala</td>
<td>651</td>
<td>17,733</td>
<td>7,416</td>
<td>1,106</td>
<td>33,055</td>
</tr>
<tr>
<td>Total</td>
<td>3,248</td>
<td>34,763</td>
<td>14,538</td>
<td>4,665</td>
<td>71,739</td>
</tr>
<tr>
<td>%</td>
<td>4.5</td>
<td>48.5</td>
<td>20.3</td>
<td>6.5</td>
<td>100</td>
</tr>
</tbody>
</table>

7.5.2 Ongoing Projects

The road networks of local authorities such as Badulla and Bandarawela were upgraded during 2002 to 2004 under ADB funding along with commercial center development projects. The A4 from Balangoda to Beragala (39 km) and A16 from Beragala to Bandarawela (17km) also have been completed in 2008 under EDCF funding giving improved mobility to Badulla from Colombo. The B44 from Bandarawela to Welimada (22km) has also been upgraded to asphalt surfacing together with the section of A4 from Wellawaya to Ampara which provides improved mobility to the Eastern Province. Moreover a number of major bridge projects have been completed in the Uva Province financed by JICA.

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96 Central Bank Sri Lanka
7.5.2.1 **National Highway Sector Project (NHSP) Funded by ADB**

There are two major highway projects which are in progress intended to provide high mobility between Uva and the Central Province namely the A5 from Nuwara Eliya to Badulla (68 km) and the A26 from Badulla to Mahiyangana. Both projects are funded by the ADB. Both are to provide two lane facilities with asphalt surfacing as in the other national highway standards.

7.5.2.2 **Road Sector Assistance Project (RSAP) funded by WB**

The following road sections have been rehabilitated under this project.

Table 7-12: Road Sections completed under RSAP in Uva Province

<table>
<thead>
<tr>
<th>Name of Road</th>
<th>Section of Road</th>
<th>Total Estimated Cost Rs Mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandarawela – Hali Ela</td>
<td>17.08-38.82</td>
<td>592.34</td>
</tr>
<tr>
<td>Bandarawela – Welimada</td>
<td>0-20.20</td>
<td>504.45</td>
</tr>
<tr>
<td>Wellawaya – Siyabalanduwa</td>
<td>218-287.15</td>
<td>1208.9</td>
</tr>
<tr>
<td>Siyabalanduwa - Ampara</td>
<td>0-57.27</td>
<td></td>
</tr>
</tbody>
</table>

7.5.2.3 **National Highway Projects**

The design work has been completed for 85 km of A5, 38 km of B36 from Badulla to Andaulpotha and 30 km of A26 road from Mahiyangana to Padiyathalawa.

Also, a feasibility study is being done to identify a new road alignment from Kandy to Badulla through economically backward areas in the Uva province as a high mobility link. Once implemented it will reduce the travel time between Kandy and Badulla thus facilitating fast movement of agricultural products and improve access to higher order socio-economic services available in Kandy.

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97 *Road Development Authority, Planning Division*
7.5.2.4 **Provincial Highway Projects**

Some 339 km of provincial roads are to be improved in Uva Province funded by ADB. There are no major transportation projects planned in the province such as railway extension, new road connection, road by pass projects etc.

**7.5.3 Issues**

The constraints and issues for transport within UP are summarized as follows:

- Poor connectivity to port and airport as well as major trading centres
- Poor access to places of natural attraction for developing tourism
- Poor connectivity between agricultural centers and markets such as Dambulla
- Lack of connectivity to developed tourism locations such as in the southern coastal areas and cultural triangle or eastern beaches.
- Poor supply chain processes for most agricultural products of the province leading to major losses in transport and handling leading to poorer returns for farmers.
- Supply chain for tea has not improved over the years.

**7.6 Discussion**

This chapter shows that most projects especially the North and East after cessation of conflict and the Southern Province have a large number of active projects. These have not followed a long term planning process, but have been given political priority based on wider socio-economic and political considerations. Hence the projects in these provinces are currently largely un-coordinated with wider socio economic factors and impose a danger of either being excessively expensive or being technologically or geographically unsuitable. In this context strategic plans are necessary to align the transport sector investments to achieve the desired developmental goals by studying the sectoral advantages and integration that can be best combined to achieve the goals at least cost and sustainability.

In other provinces such as Western, the level of intervention has been at a high end in development of expressways and flyovers, even though there are many other issues such as congestion, accidents, etc that do not appear to be to be solved with the provision of expressways and flyovers. Technologically upgrading public transport, restraining excessive vehicle flows to urban centers, management of road traffic are relatively low cost interventions that have not been picked up.
On the other hand Uva Province demonstrates a province which continues to be cut off due to lack of modernization in the transport system that once gave it an advantage as being a rich plantation and agricultural province. Industrialization and even tourism for which it has potential have not developed due to relatively longer access times from key traffic generators.
8 ISSUES IN URBAN AREAS

This chapter summarizes the programs and projects of the municipal areas that have been included in the ToR of the study. Except for Vavuniya the others are in Western Province as urban area transport issues are most intense in the economically active WP. Vavuniya is currently a fast developing urban centre functioning as the gateway to the north.

The transport issues and the programs and projects identified for Colombo have been described at length while brief assessments of each of the other municipal areas based on information available and field visits have been constructed for purpose of highlighting the different problems and the requirement for intervention at different levels of transport sector provision. The local authorities that will be assessed in this chapter are:

- Colombo Municipal Council
- Avissawella Urban Council
- Moratuwa Municipal Council
- Vavuniya Municipal Council

8.1 Colombo Municipal Council

Colombo is the primate city in Sri Lanka and its commercial capital. It is the also the point at which the road and rail networks radiate from as is the bus route network. The country’s main port is located within Colombo city. These factors combine to make Colombo the focal point of transport activity both passenger and freight. The major passenger terminals as well as warehouses are located in the Pettah area which is adjacent to the port and the wholesale trading establishments. These areas have thus developed from the 19th century and have not gone through a modernization.

8.1.1 Traffic Management

Due to the concentration of commercial, administrative services as well as educational and health services, Colombo city continues to attract heavy passenger and freight flows. This leads to traffic congestion on the roads as well as in public transport. These congestion issues can be considered as the result of poor land use planning over the decades where decentralization of activities have not taken place and lack of capacity expansion in the transport network.
Traffic Congestion in Colombo and its suburbs has been estimated at around Rs 30 billion per annum. Recent studies have also shown that as the number of vehicles increase the total number of passengers entering the city is reducing as is the speed of travel. This is causing poor mobility for commuters who are now travelling further away from their work places and spending more time and money on travel to work. More and more distance of main arteries are now experiencing traffic congestion throughout the day thus leading to deterioration of quality of urban life.

8.1.1.1 **Present Road Traffic Condition in Colombo**

An estimated 830,000 people arrive to the City from outside every day. Of this 90% arrive by road with railway carrying approximately 80,000 or 10% of this demand. The road passengers enter the city through 12 roads with 56% of all passengers arriving by bus and the others arriving by private vehicles such as cars (11%) and motor cycles (5%) and hired vehicles such as three wheelers and vans (18%).

The 750,000 people who arrive to the city by road come in 200,000 vehicles. Of these, 11,000 are buses and 15,000 goods vehicles. The balance is made up of around 175,000 private vehicles mostly carrying 1 or 2 passengers each. Presently around 15% of the road space is utilized for bus transport even though it transports 62% of the road passengers. On the other hand, 65% of the road space is used by private and hired vehicles which in sum total carry only 38% of the passengers. In addition to the vehicles entering the city, there are a further 250,000 vehicles registered within the Colombo Municipal Area.

The corridors in the city experience two major traffic peaks daily in the evening and the morning and several local peaks especially in the after-noon.

8.1.1.2 **Growth of Road Traffic in Colombo**

Since country’s major administrative, business, commercial and educational activities were centralized in the Colombo city centre, it has experienced a steady traffic growth for several decades. But in last few years it was observed that these activities spilled over and migrated to the outskirt areas of Colombo such as Nugegoda, Maharagama, Panadura and Kiribathgoda. Table
7.13 shows how the passenger growth has developed over the long term up to 1995 and has then begun to decrease due to the increase in congestion and migration of activities from the city centre.

Table 8-1: Daily Passenger Flow at the CMC Boundary-Both Directions (1965-2005)\(^98\)

<table>
<thead>
<tr>
<th>Main Corridors</th>
<th>Historical</th>
<th>Pax 1965 (000s)</th>
<th>AAGR (65-85)</th>
<th>Pax 1985 (000s)</th>
<th>AAGR (85-95)</th>
<th>Pax 1995 (000s)</th>
<th>AAGR (95-05)</th>
<th>Pax 2005 (000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galle Road</td>
<td>91</td>
<td>5.8</td>
<td>279</td>
<td>1.7</td>
<td>331</td>
<td>1.0</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>Negombo &amp; Kandy Rds</td>
<td>118</td>
<td>6.2</td>
<td>400</td>
<td>3.6</td>
<td>607</td>
<td>-1.0</td>
<td>553</td>
<td></td>
</tr>
<tr>
<td>Ratnapura Rd</td>
<td>62</td>
<td>4.2</td>
<td>141</td>
<td>3.9</td>
<td>206</td>
<td>-0.5</td>
<td>196</td>
<td></td>
</tr>
<tr>
<td>Cotta &amp; Sri J’Pura Rd</td>
<td>45</td>
<td>3.5</td>
<td>89</td>
<td>10.8</td>
<td>249</td>
<td>1.3</td>
<td>278</td>
<td></td>
</tr>
<tr>
<td>Horana Road</td>
<td>21</td>
<td>5.2</td>
<td>58</td>
<td>8.1</td>
<td>126</td>
<td>-1.3</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>Wellampitiya Road</td>
<td>38</td>
<td>2.0</td>
<td>56</td>
<td>0.1</td>
<td>59</td>
<td>-0.3</td>
<td>57</td>
<td></td>
</tr>
<tr>
<td>Narahenpita Road</td>
<td>12</td>
<td>6.2</td>
<td>40</td>
<td>0.1</td>
<td>35</td>
<td>2.8</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>Ambatale Road</td>
<td>n/a</td>
<td>n/a</td>
<td>32</td>
<td>n/a</td>
<td>63</td>
<td>-0.8</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>387</strong></td>
<td><strong>5.3</strong></td>
<td><strong>1095</strong></td>
<td><strong>4.4%</strong></td>
<td><strong>1676</strong></td>
<td><strong>-0.6</strong></td>
<td><strong>1572</strong></td>
<td></td>
</tr>
</tbody>
</table>

Interestingly however, during the last decade, even though the number of people coming has reduced, the number of vehicles coming to the city has continued to increase. This means that more and more people have shifted from public transport to private vehicles which take more space on the road per person, thus allowing fewer people to enter the city especially during peak periods.

Over the last 30 year period the share of trips made by cars and motor cycles have increased from just 5% to 20% leading to an explosion in the demand for road space from around 25,000 vehicles per day to 175,000- a seven fold increase. This phenomenon is not particular to Colombo as most cities experience similar problems when public transport fails to match the improved quality of transport and complexity of mobility needs that arise with increasing incomes of the population. This can be observed when one compares the relative deterioration in the comfort of bus or rail transport when compared with the ever increasing features in private vehicles. Even though buses have increased in number, the quality of service, reliability, conditions of bus stops and terminals have continued to deteriorate. The railway service is also plagued by loss in quality and also struggles to meet its daily timetable requirement due to lack of rolling stock.

Table 8-2: Growth of Traffic Entering to Colombo City

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Vehicles</th>
<th>Buses</th>
<th>Goods Vehicles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADT 1985</td>
<td>130,000</td>
<td>31,950</td>
<td>16,850</td>
<td>178,800</td>
</tr>
<tr>
<td>AAGR(1985-95)</td>
<td>4.6</td>
<td>-1.7</td>
<td>3.7</td>
<td>3.6</td>
</tr>
<tr>
<td>ADT 1995</td>
<td>203,215</td>
<td>27,084</td>
<td>24,158</td>
<td>254,457</td>
</tr>
<tr>
<td>AAGR(1995-05)</td>
<td>5.3%</td>
<td>-1.3%</td>
<td>2.6%</td>
<td>3.9%</td>
</tr>
<tr>
<td>ADT 2005</td>
<td>341,893</td>
<td>23,893</td>
<td>31,311</td>
<td>374,381</td>
</tr>
</tbody>
</table>

There are also an estimated 15,000 good vehicles movements made to and from the city every day. Beside this, there are perhaps twice as many freight vehicle trips circulating within the city every day. Around 2,500 of such movements are to and from the Port. This includes containers, tankers and trucks. Thus around 10% of all goods movements within the city are related to trip ends in the Port. Surveys do however show that around 50% of such movements are empty underlying the lack of coordination in securing return hauls for freight vehicles. The other significant freight vehicle generators are the Vegetable (Manning) market in Pettah as well as the dry goods and hardware markets in 4th Cross Street and Armour Street areas.

8.1.2 Strategy for Traffic Management

Most cities worldwide are now following a strategy referred to as Transport Demand Management in order to manage the demand for travel within the constraints of road space available in a city. Fundamental to this concept is that when space is limited, more space efficient modes namely modes of public transport should be developed to serve a city. As a result most cities that have high density of development rely mostly on quality public transport to serve its mobility needs. This is considered the most suited approach for Colombo which is an older city and where the population density is high and the opportunities for new roads and road widening are limited due to existing of many building and places of significance which cannot be destroyed in heavy road building programs.

The basic strategy for Colombo is this paradigm shift that is necessary in the perception of public transport being a solution rather than the popular myth that it is the cause of traffic congestion and pollution. It also calls for acknowledging that the policy of solving traffic congestion is based

99 Source: Transportation Engineering Division, University of Moratuwa, 2004
on the introduction of quality public transport as opposed to an expectation of new roads, expressways, flyover and road widening which at best can be local solutions.

Therefore there are two basic interventions required in this respect:

1. Road Capacity Development

2. Transport Demand Management

### 8.1.2.1 Road Capacity Development

The road infrastructure in Colombo city and its suburb in general cannot be much widened any further or new roads built in keeping with the demand created by people who are shifting from public transport to private transport. The inability to obtain the required land for road space, parking spaces etc are fast becoming constraints that are severely restricting the flow of vehicles which far exceed the capacity of the road system to efficiently discharge the demand. As a result, around 80% of the length of all national roads lying within a 10-km radius from the city centre is congested throughout the day. The average speed on these roads falls below 15 km per hour. At such speeds, fuel consumption doubles, consequently increasing air pollution as well.

On the other hand, widening or building new roads cannot be accepted as a solution since the population density of 17.40 pop/sq km clearly indicates the difficulty of land acquisition for further road development activities. Projects such as the extension of the Duplication Road, widening and extension of Baseline Road and Marine Drive, Havelock Road and Thimbirigasyaya Road widening have clearly illustrated the difficulties in land acquisition in a city which is both historic and densely built up.

### 8.1.2.2 Travel Demand Management

Limitations of highway development evidently indicate that prevailing problems of the Colombo City should be solved through managing present travel demand. In recent past, there are debatable proposals has been forwarded in this regard such as:

#### 8.1.2.2.1 Relocation of travel attractors

Over the last 10 years there has been a noticeable shift in the private sector businesses and offices from the centre of the city to the outskirt of the city such as Maharagama, Nupegoda, Panadura, Kiribathgoda etc. Though it can be assumed that these unplanned developments have led to the decrease in the passenger flows towards the city centre, it has not happened since other activities have taken the space vacated by these trading establishments. Furthermore these activities are in turn causing congestion along the urban centers located along the major arteries thus throttling the city even further.
8.1.2.2 Redistribution of travel times

There are several methods for redistributing the time of travel to the city of Colombo. These would include introduction of road pricing, vehicle usage restrictions, and implementation of variable work hours are some of possible solutions in this respect. Encouraging foods movement at night would also be another strategy.

8.1.2.2.3 Redistribution to other modes of transport

These are methods by which passengers could be moved from low occupancy and space inefficient modes of transport to space-efficient high occupancy vehicles. Establishing park and rides systems and ride sharing programs, introducing high quality urban transport systems such as rapid transit as well as improving existing public transport systems are part of such interventions that are actively carried out in many cities around the world.

The present system of sub optimal bus and railway transport has to be improved to a status wherein they form a realistic choice to those who own or can own a private vehicle. In this context management restructuring of the bus sector, introduction fo modern technology such as ICT in the sector as well as introduction of premium level valued added rail and bus services will be a priority. It will also include the provision of priority for public transport which is a wide spread policy adopted by many cities in their attempt to reduce traffic congestion and environmental pollution. It also requires reducing the number of excessive vehicles, re-rerouting and terminating some bus routes away from city centres.

It is also timely to think of moving such freight traffic, especially those to and from the port by railways. Improving the utilization of cargo carriage by reducing empty truck movements would also be a valuable exercise.

8.1.3 Solutions Proposed

8.1.3.1 Strategies & Goals

The Government’s strategic approach as stipulated in the Strategic Traffic Management Plan for Colombo Metropolitan Area as well as in the Land Transport Policy relevant to Traffic Management to be achieved by the year 2010 is given below:

- To reduce the number of vehicle arrivals within the city particularly, the daily number of private vehicles from 175,000 to 125,000 by end of 2010. This is estimated to improve traffic speeds by 50% and pollution loads by at least and equal amount.
To increase railway passenger arrivals to Colombo to increase to at least 120,000 (a 50% increase) by end of 2010 by improving services and new connections where feasible.

- To ensure that at least 1/3rd of existing road space on major highways within a 10 km radius from Colombo Fort as well as within the city be reserved for high occupancy vehicles. Such areas to be utilized for high priority bus lanes, light transit systems (trams) or bus rapid transit (BRT) systems in order to reduce buses and other vehicles.

- To ensure that at least 1/10th of space of all roads within the city are provided exclusively for non-motorized transport such as for sidewalks for walking and bicycle lanes.

- To reduce the number of goods vehicles arriving in the city by 50% by the year 2010 by relocating or decentralizing logistics and distribution activities outside the city.

8.1.3.2 Issues

8.1.3.2.1 Bus Transport

- To undertake a complete city rerouting of bus routes in the city and suburbs in order to reduce overlapping routes, promote bus priority roads and reduce excess buses and bus trips.

- Implement a system of well designed bus priority lanes in Colombo city especially in the areas under the One-Way traffic system.

- To introduce a premium service air conditioned minibus service to attract regular private vehicle users from suburbs to city.

8.1.3.2.2 Goods Transport

- Ensure the reduction of empty truck movements to and from the city and to encourage the movements of heavy goods vehicles during night times and outside of peak traffic times.

- In particular to ensure the minimum impact of port related traffic on limited road space within the city and to facilitate greater movement of goods movements during night time and off peak hours.

- Commencement of Inland Logistics Hubs at Ratmalana and another location to the east and also to the north of Colombo to reduce the number of heavy vehicles coming in to the city for which Cabinet approval has been obtained.

8.1.3.2.3 Road Pricing & Traffic Restraint Measures

- To plan to introduce Road Pricing as a measure of managing traffic levels on a long term basis to be implemented after satisfactory public transport alternatives are provided to private vehicle users.
To study measures to reduce the use of government vehicles especially those assigned for personal use.

8.1.3.2.4 Land Use

- To plan the priority land use for Colombo and to determine which activities should be gradually moved out to other areas.
- To integrate land use development especially of high density commercial and residential areas in close proximity to public transport corridors.
- To identify & preserve railway land in the city and its suburbs for future development of transport based facilities and appropriate high density urban development activities that are consistent and part of such transport developments.

8.1.3.2.5 Railways

- Electrification of suburban railways.
- Improve the services of the Sri Lanka Railways by investing in rolling stock and infrastructure development for both passenger and freight transport especially in the Colombo Urban area.
- To operate Value Added Premium Railway Services to attract present private vehicle users.

8.1.3.2.6 Coordination

- Implement a Coordinating Mechanism (by expanding the Presidential Committee on Urban Transport (P-CUT) or similar arrangement) to coordinate activities of traffic demand management in the Colombo Urban Area.

8.1.3.2.7 Rapid Transit

- Implement a modern Bus Rapid Transit (BRT) from Battaramulla to Dematagoda for which Cabinet approval is obtained.
- Feasibility Study to be undertaken to provide inter-modal connectivity between railway stations, bus terminals and points of heavy traffic generation within CMC area with a Light Rail (tram) Transit system.

8.1.3.2.8 Multi Modal

- To develop and modernize the Bastian Mawatha Bus terminal in Pettah as a multi-modal transport terminal.
• To plan and construct New **Multi-modal Terminals** in locations such as Dematagoda, Kelaniya, Ratmalana, Battaramulla and other suitable sites to commence park and ride systems so that long distance buses can terminate at these centres in the periphery.

**8.1.3.2.9 Traffic Control**

• To implement an **Advanced Traffic Control System** with priority for high occupancy vehicles within city and suburbs.

**8.1.3.2.10 Demand Spreading**

• To study and introduce **flexible work hours and staggered hours** for schools and offices in an attempt to smoothen traffic peaks.

**8.2 Avissawella Urban Council**

Avissawella Urban Council (UC) area is in Colombo District and located at a distance of around 60 km from Colombo City. It has a relatively small population of around 38,318 but is more important as the intersection of the A4 Colombo-Ratnapura-Wellaway-Batticaloa road and the A7 Avissawella-Hatton-Nuwara Eliya Road (AHN). The Kelani Valley Railway Line terminates at Avissawella even though in earlier years it passed through to Ratnapura and terminated at Opanayake.

Avissawella is surrounded by a number of even smaller town centers namely, Hanwella, Ruvanwel, Eheliyagoda, Kirindiwela, Bulathkohupitiya, Deraniyagala, Karawanella, Kosgama, Aguruwella and Dehiowita. Avissawella is the main city to all these towns and has been identified as a third order city according to the Greater Colombo Development Plan. The economic backbone of the area is its plantations. The location of the Seethawakapura Export Processing Zone has given Avissawella a degree of urbanization as the zone is located within the UC limits.

**8.2.1 Land Use and Geography**

The land area of the Avissawella UC area is 19.4 square kilometers with a population density of 11 persons per ha. The area is bounded by the Kelani River on two sides and hilly terrain on the others. The dominant land use within the UC is still mostly rubber plantation (67.8%) with only around 20% used for residential purposes. The area is also prone to flooding since some lands surrounding the river are below sea level.
8.2.2 Seethawaka Export Processing Zone (SEPZ)

Seethawaka Export Processing Zone (SEPZ) is set out over 168 hectares and provides for 77 industries with and estimated 20,000 direct employment opportunities plus another 40,000 indirect job opportunities outside the zone. Presently, there are 30 factories and there are 17,792 employees as at January 2010. There are 2,400 vehicles arriving to the SEPZ daily and the majority of these are transport service vehicles deployed by the factories for employee transportation. This comprises 331 buses which are mostly owned by the factories and 746 vans that have been hired. There are a further 246 private vehicles being used by the management staff together with around 700 three wheelers are providing short distance transportation services for both workers and office staffs.

8.2.3 Regional Connectivity and Transport

The connectivity of Avissawella to other parts of the country is mostly by road transport. The Kelani Valley Railway Line provides only 8 trips in both directions and is currently slow and unattractive due to its winding nature and low design speed. Even though the river passes through the UC area there is no water transport facility available.

The Avissawella bus stand has been developed (2002-3) but the lack of coordination between State and private operations has led to many operational issues and congestion within and outside the terminal. Some 121 buses operate on 93 routes daily from SLTB bus stand with 217 private buses on 18 routes.

There are 32 km extent of roads maintained by the Avissawella UC, most of which are single lane metalled roads. The basic road network within the city is part of the national highways maintained by the RDA. The town area and extending a length of 3 to 4 km in the Colombo direction is constantly congested due to the activities in the town centre as well as the SEPZ.

8.2.4 Recent Transportation Development Projects

There have been very few transportation related projects implemented in the UC area even though the SEPZ has put enormous transport demand on the road network within and in the surrounding areas of the city. One of the few transport projects was the Bus terminal development during 200/2002 funded by Asian Development Bank (ADB) under Urban Development and Low Income Housing Project (UDLIHP). The loan amount for this projects amounted as 146,752,738.58 rupees at 10% interest rate. In addition there have been just a few small scale road projects mostly for the rehabilitation and maintenance of the existing road network. There are no on-going transport or road development projects within the Avissawella UC area.
8.2.5 Constraints and Problems

There is very heavy traffic congestion approaching Avissawella on the main truck road the A4 up to a distance of around 3 km. This increases beyond the SLTB depot/Seethawake Export Processing Zone and becomes further intense after entering the town area passing the Rest House Junction. Even though a one-way system is in operation, the haphazard parking, lingering of bus stops, trading activities on the roadside, lack of pedestrian facilities and haphazard movement of vehicles created a veritable chaos in the town area thus causing bottlenecks. This severely affects the movement of through traffic moving from Colombo to the A7 Avissawella-Hatton-Nuwera Eliya road.

Even though a Transport Study undertaken for the Seethawaka Industrial Zone\textsuperscript{106} has made several suggestions in order to reduce the impact of the traffic generated by the zone on the Avissawella Uc area, none of them have been carried out. These include:

- Construction of a by-pass adjacent to the Industrial Zone and providing a short cut from the Colombo Road (A4) to the A7 AHN road with a bridge. Even though the RDA had studies the trace this has not been included in a project so far.
- Improvement to the railway operations to increase speed.
- Traffic management measures in town area by providing designated areas for parking especially for three wheelers
- Improvement to pedestrian sidewalks and cross walks
- Improvement to the circulation of buses and relocation of bus halts within the town area.

8.3 Moratuwa Municipal Council

The Moratuwa Municipal Council (MMC) area is in Colombo District and located between 15\textsuperscript{th} km and 26\textsuperscript{th} km along the A2 Colombo- Galle Road. The MMC area is surrounded by the sea on its west and the Bolgoda Lake on its east.

Moratuwa is traditionally known for its skilled carpentry work and furniture industry, which provides many employment opportunities in this area. The transportation through water bodies such as Bolgoda Lake surrounded the land by most of its peripheral has been one of the main reasons for the establishment of this industry within MMC area in era before motorized transport. The city is linked to Colombo City centre by both road transportation and rail transportation. Also it is possible to have water transportation along the coastal line but not been tried out as yet.

\textsuperscript{106} University of Moratuwa, Transport Study of the Seethawaka Industrial Zone in Avissawella, 2000
Moratuwa is one of the five Municipal Councils located within the Colombo Metropolitan Area. Its importance lies mainly due to the following factors:

- Having modern industrial activities
- Traditional carpentry workshops and timber industry.
- Fisheries activities
- Educational including University of Moratuwa and religious centers of a higher order
- Service activities particularly related to tourist industry.
- Residential suburbs of Colombo.
- Being located adjoining the Ratmalana Industrial Zone established in 1970s

It was elevated to the level of a Municipal Council on 8th January 1998. In view of its demographic, social and economic importance, Moratuwa has been identified as a sub-regional center in the Regional Structure Plan prepared for the Colombo Metropolitan Region by the Urban Development Authority in 1998.

### 8.3.1 Land Use and Geography

The land area of the MMC is 23.4 square kilometers. Of this 60% of land is use for residential purposes. The average plot size falls below 5 perches since a large area is occupied by low income settlements such as fishery settlements along the coastal belt. Generally, the geography of the area is flat terrain with large number of water bodies such as the “Lunawa Lagoon”, “Bolgoda Lake”, “Panadura Ganga”.

### 8.3.2 Economy and Employment

The economy of MMC is mainly in the manufacturing sector with 85% employment provided in the private sector. The category of craft related skilled workers is quite high at 26%.

### 8.3.3 Regional Connectivity and Transport

The MMC is located around 17 km south of Colombo along the Galle Road (A2). The most common modes of public transportation are railway & bus. There are 78 daily trains travelling in both directions that stop at the Moratuwa Railway Station. Around 20 such trains operate during the morning peak period while six trains originate/terminate here. There are another four smaller slow stop railway stations within the MMC with bus connections. There are 71 buses in the

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\textsuperscript{101} Moratuwa Municipal Council, Engineering Division
Moratuwa SLTB depot providing services on 27 routes in the area while 162 private buses commence their services on 8 routes. There are several thousand buses passing Moratuwa from southern cities on the way to Colombo.

There are 160 km of roads within the MMC area including two A Class roads and one B Class road. The 122 km of D class roads managed by the MMC.

<table>
<thead>
<tr>
<th>Road Type (Class)</th>
<th>Length (km)</th>
<th>Density (km per sq.km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>18.11</td>
<td>0.80</td>
</tr>
<tr>
<td>B</td>
<td>2.14</td>
<td>0.09</td>
</tr>
<tr>
<td>C</td>
<td>17.67</td>
<td>0.78</td>
</tr>
<tr>
<td>D</td>
<td>122.08</td>
<td>5.39</td>
</tr>
<tr>
<td>Total</td>
<td>160</td>
<td>7.60</td>
</tr>
</tbody>
</table>

Table 8-4: Typical Traffic Level of the Main Roads

<table>
<thead>
<tr>
<th>Name of the Road</th>
<th>Type</th>
<th>ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Galle Road</td>
<td>A</td>
<td>40,000 – 50,000</td>
</tr>
<tr>
<td>Old Galle Road</td>
<td>A</td>
<td>30,000 – 20,000</td>
</tr>
<tr>
<td>Bandaranayake Mw. (Piliyandala – Katubedda Road)</td>
<td>B</td>
<td>10,000 – 15,000</td>
</tr>
</tbody>
</table>

8.3.4 Transportation Development Projects

It was observed that only one road project has been included in the development plan of the MMC area during the last two years. There are no records of any ongoing transportation related project within the MMC area other than maintenance of the municipal roads and concreting of short sections of the same roads.

A significant national development took place in Angulana Moratuwa when the National Transportation Commission (NTC) originated the first Park and Ride for a coach service to Colombo. There are 6 coaches providing around 20 return trips carrying around 200 passengers.

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103 Ibid
The service from next month will also connect the railway station at Fort in Colombo. Around 82% of the current passengers are former private vehicle users.

8.3.5 Issues

1. Moratuwa being a big suburb of Colombo has severe congestion problems both within the municipal area as well as when travelling to Colombo where most residents in Moratuwa work.

2. The city lacks a suitable modern public transport system to access Colombo which is important for a residential city such as Colombo. The existing buses and trains though available still lack quality and have not been modernized for many decades.

3. The town area is intensely congested particularly during evenings and weekends. The streets have little or no traffic management systems, parking control or pedestrian facilities.

4. The bus terminal even though located adjacent to the Moratuwa railway station provides poor connectivity as there is no seamless transfer.

5. There are no park and ride facilities provided for railway travel.

6. The local authority roads have not been rehabilitated. Many highly trafficked provincial roads have failed surfaces due to heavy loads being carried to timber mills spread throughout the Moratuwa region.

7. Bus travel from main artery which is Galle Road to residential areas located inland is poor and often overcrowded and slow forcing people to use three wheelers as an expensive but necessary alternative.

8.4 Vavuniya Urban Council

Vavuniya town is the district capital of the Vavuniya district and presently acts at the gateway to the Northern Province. It is accessible by both rail and road from Colombo and other major towns in Sri Lanka.

Presently the urban area is administered by the Vavuniya UC with an area of 31.33 sq km which include 3 Grama Niladhari divisions namely Vavuniya town, Rambaikulma and Vairavapuliyankulam and parts of the other 13 Grama Niladhari divisions. The population of the area was estimated at 75,175 in 2009 and is expected to increase rapidly with the cessation of conflict and Vavuniya becoming the gateway to the Northern Province.
In general the commercial, administrative, educational and residential activities with minimal industrial activities are well integrated in Vavuniya town. In terms of commercial activities the city has developed to its east of the A9 road but its more residential areas are to the west. Educational activities, presently schools only, are located in city limit adjacent to the major roads.

Both road and transport sector within NP including Vavuniya has been deteriorated due to the civil disturbances that occurred over the last few decades. Currently under the Uthuru Wasanthaya Program there are several development programs in the transport sector aimed at speedily improving road and rail infrastructure.

In 2009 the Vavuniya UC has spent only around Rs.5.5 million for transport related infrastructure which includes communication utility services, from their total income of Rupees 88 million. This is far below the minimum required for a reasonable level of preventive maintenance.

### 8.4.1 Regional Socio economic Development

The role of the town is determined by the regional economy and the demands for services from its hinterland. Demand for other services from the region has been affected by the economic activities and livelihood of the people. The economy in the hinterland is overwhelmingly agricultural with 76.4% of the employment in rural areas in agriculture, mainly irrigated fed paddy cultivation.

Vavuniya town provide services as a market place for the agriculture commodities produced in the surrounding hinterlands and also function as administrative and commercial centre for the entire district. There is a concentration of commercial activities on the Horowpathana Road and along the Anuradhapura Road.

Development Plan for Vavuniya Urban Development Area 2009-2030 has been produced by the Urban Development Authority and has been put forward for the implementation in priority basis. Proposed development plan integrate land-use plan together with transportation physical infrastructures such as bus terminals, bus stops and urban road network. It has proposed several new road links to construct to keep proposed land use intact.

### 8.4.2 Public Transport

Currently there are around 87 private omnibuses operating on routes centered on Vavuniya town under permits issued by the Government Agent. Besides these local services, there are another 117 buses issued with permits by National Transport Commission for inter-provincial (long-distance) services between Vavuniya and other provincial cities. These include the 61 buses providing a 24-hour service between Vavuniya and Colombo on two different routes. In addition Vavuniya depot has also deployed around 30 SLTB buses to serve local and distant services.
centered on Vavuniya. At present due to the increase of demand private operators has been entered to the passenger transportation without having legal permission. Hence it is necessary to take immediate action to select and deploy necessary local services under a regulatory body. Concessioning of bus route permits have been introduced to the Vavuniya District and the first such tender was closed on 25th March 2010.

The railway line connects the Vavuniya region to important urban centers such as Anuradhapura, Kurunegala, Polghawela, Gampaha and Colombo. At present the railway operations on Northern line has been limited only up to Omanthai just north of Vavuniya with only 5 passenger trains between Vavuniya and Colombo. However accelerated rehabilitation work on the Northern Railway line up to KKS has been already initiated under Uthuru Mithuru program and is planned to be completed within 2 years.

The Urban Development Authority has undertaken the task of developing a Town Development Plan for Vavuniya. This is in early stages of planning and currently locations are being sought for key functions to be relocated such as the bus terminal.

8.4.3 Traffic Movement

According to RDA traffic counts done in 2005 the A9 road recorded between 2500 and 3000 motorized vehicles per day closer to the Vavuniya town center. The other two main roads namely the A29 and A30 roads meeting at Vavuniya and running to Horowpathana and Parayanalankulam respectively have recorded 4500-5500 motorized vehicles per day. In the Vavuniya area the traffic composition is around 50% two wheelers and 20% three wheelers.

8.4.4 Road Network

Vavuniya city is well connected with the district capitals such as Anuradhapura, Mannar and Kilinochchi district through A9 and A30 roads. The A29 road also provides access to Trincomalee via Horowpathana. Most of the National Roads in NP have been included in a program for immediate re-construction under the “Uthuru Wasanthaya” Program. In-fact rehabilitation of A9 road has started and certain sections including Vavuniya town limits already been completed.

8.4.5 Issues

- Due to the absence of a provincial council in the Northern Province private omnibuses are currently administered by the Government Agents under the direction of the National Transport Commission. With the possibility that provincial elections would be conducted in the near future, the subsequent establishment of the provincial regulatory authorities for transport could be anticipated. Due to the absence of adequate qualified persons capable of
handling these functions, it would be necessary to intervene in capacity building and providing other physical resources such as computers and vehicles for a good commencement of functions. Lack of attention given to intra provincial transport has led to numerous problems in other provinces.

- With Vavuniya becoming a commercial centre for the Northern Province, the town centre has become a very busy place. The existing bus terminal located in a highly congested area has become inadequate and confined to SLTB buses only. Private bus stops and parks have spilled out to neighboring roads and streets making the entire town congested with vehicles and pedestrians. There is a need for a centralized bus terminal if possible as a multi modal terminal along with the improvement of facilities at the railway station. Several lands at the close vicinity of SLTB bus stand has been identified for developing as the bus terminal for private buses. However these proposed sites together with existing SLTB bus stand located approximately about 600m away from railway station.

- Most of the buses used for public transport in this area are old and dilapidated and some investments are needed to invest in two door large capacity buses and also to commence value added services such as air conditioned services.

- Many areas wherein resettlements are taking place require early provision of bus services even if they are not financially viable. In this respect it would be necessary to ensure the provision of the concessioned Sisu Saeriya school bus service and the Gami Saeriya rural bus services are deployed early.

- The rehabilitation of the Northern Railway line from Vavuniya to Thandikulam, a distance of 6 km of a total length of 158.9 km (3.7%), has been completed. This work is being undertaken with foreign funding. Moreover, the railway track between Anuradhapura and Vavuniya has also deteriorated and require immediate renovation. Average speed within this section presently limited to only up to 10 miles per hour. Increasing load bearing capacities of bridges and replacing wood sleepers with concrete sleepers are a high priority.

- Presently a high proportion of road users in Vavuniya city are cyclists. Almost all short-distant travel including work trips and school trips are undertaken by bicycle. In the proposed UDA developments plan all roads in Vavuniya town are have been provided with a cycle lane and a pedestrian lane at either side. This would not be a difficult task as in case of other cities since almost all roads are having excess space to play with. However priority for promoting non-motorized travel is necessary as such space will undoubtedly be wanted for more popular activities such as for parking of vehicles and trade.

- In addition to strengthening sectoral agencies with financial capacities, it is required to improve the technical capacities of these agencies. Urban councils and local road sector
Review of Sri Lanka Transport Sector

agencies continuously suffer due to unavailability of minimum requirement of equipments and laboratory facilities.

- Vavuniya town has developed rapidly especially around the junctions where the A9 road meets the A29 (Vavuniya-Horowpathana Road) and where it meets the A30 (Vavuniya-Mannar Road). The highly dense urban road network especially in the eastern-side of the A9 provides number of access ways to other commercial areas in the city. At present there is available right-of-way of around 12-14m on the main A roads within the city limits. But the available road-way space has not been developed for pedestrian and parking facilities to ensure their maximum utilization. Some redesign of all urban roads within the town are is urgently required.

- The increased development has also resulted in heavy traffic flows and the junctions in particular have become very congested. Improved intersection control is required at all such junctions together with control of parking and pedestrian activities.

- Strengthening technical, equipment and financial capacities of urban council and related agencies handling transport and road sector activities
9 LONG LIST OF STRATEGIC INVESTMENTS

The long list of projects considered for this will include projects in GoSL policy documents that have been reviewed in this report; transport studies that have been carried out over the last 10 years; agency planning documents as well as projects to be proposed by the experts. These are taken mostly from references made in this report and listed under each sub sector giving the section referred to. There are over 150 projects in this long list.

9.1 Roads

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rehabilitation of roads in National Road Network that have exceeded their design life</td>
<td>Many roads have not seen a major rehabilitation. Increase in traffic and axle loads and speeds require for realignment and rehabilitation and redesign of pavement and geometry of around 4000 km of such road length and over 100 bridges in the National Road Network</td>
<td>MC 2005, MC 2010 Section 6.4.1.2 Section 6.4.1.5</td>
</tr>
<tr>
<td>Junction Improvements for better traffic management and safety.</td>
<td>Several hundred intersections on the national road network have exceeded their capacity in terms of traffic handling and provision of safe passage. Improved intersection control methods to be introduced.</td>
<td>MC 2010 Section 6.4.1.3</td>
</tr>
<tr>
<td>Planning for New Roads and Expressways</td>
<td>Several new roads and expressways are required to (a) develop a high mobility network and (b) provide missing links in the existing network.</td>
<td>MC 2005, MC 2010 Section 6.4.1.1</td>
</tr>
<tr>
<td>Connectivity to Remote Villages</td>
<td>Provide connectivity by road to the 6 percent of villages that have poor access.</td>
<td>MC 2005</td>
</tr>
<tr>
<td>Bottleneck and Black Spot Improvement Program</td>
<td>To ease traffic flow and improve safety at locations on the road network that do not at present provide an adequate level of mobility and/or safety for users.</td>
<td>MC 2005 Section 6.8.3 Safety &amp; Security</td>
</tr>
<tr>
<td>Reform of Road Sector Institutions</td>
<td>Road sector institutions as national, provincial and local government level have not gone through a critical or rigorous reform process that would improve their efficiency and effectiveness.</td>
<td>MC 2005 Section 2.5.13 PRDA Institutional Capacity</td>
</tr>
<tr>
<td>Attracting and retaining capable technical staff</td>
<td>The RDA faces a sever dearth of middle level engineers.</td>
<td>Section 2.3.1.3 RDA Section 2.5.1.3 PRDA Institutional Constraints</td>
</tr>
<tr>
<td>Project</td>
<td>Description</td>
<td>References</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Ensure adequacy and continuity of funding for maintenance and monitoring of same for effectiveness</td>
<td>To address the serious backlog in maintenance, it is necessary to increase the financial resources for road maintenance. This means at the same time that decisions for investments in new road capacity need to be rationalized. In order to ensure that funds are appropriately used for maintenance, there is a need to develop mechanisms that provide predictable and reliable resource allocations for road maintenance at all levels of road management. The Road Maintenance Trust Fund needs to be enhanced and its funding more thoroughly monitored.</td>
<td>Section 2.3.1.3 RDA Institutional Constraints&lt;br&gt;Section 3.1.3 Highways</td>
</tr>
<tr>
<td>Technical Capacity Building of all road agencies</td>
<td>To provide technical capacity building at all levels on a continuous basis and to encourage the introduction of modern equipment.</td>
<td>Section 2.3.1.3 RDA&lt;br&gt;Section 2.5.1.3 PRDA Institutional Constraints</td>
</tr>
<tr>
<td>Improve Road Management legislation and Monitoring</td>
<td>To develop the capacity for ensuring compliance to vehicle axle loads, maintenance of clear right of way etc</td>
<td>Section 2.3.1.3 RDA Institutional Constraints</td>
</tr>
<tr>
<td>Develop Planning and Project Management Capacities of the PRDAs</td>
<td>Even though foreign funded projects to PRDAs have PMUs, similar to at the RDA. However unlike at the RDA, there is a severe dearth of technical staff at the provincial councils. Hence, capacity is limited. Moreover even those available are not adequately trained for functions such as design, planning, etc.</td>
<td>Section 2.5.1.3 PRDA Institutional Constraints</td>
</tr>
<tr>
<td>Improving contract management and Quality Assurance skills in PRDAs</td>
<td></td>
<td>Section 2.5.1.3 PRDA Institutional Constraints</td>
</tr>
<tr>
<td>Technical capacity building for road condition assessment and investment appraisal</td>
<td>Professional development courses required</td>
<td>Section 2.5.1.3 PRDA Institutional Constraints</td>
</tr>
<tr>
<td>Inadequate equipment at provincial level</td>
<td>Provide an investment incentive scheme for promoting high end equipment at provincial levels that would return lower costs and higher quality of road works</td>
<td>Section 2.5.1.3 PRDA Institutional Constraints</td>
</tr>
<tr>
<td>Ensure long-term sustainability of funding for maintenance of road network</td>
<td>It is required to ensure that the roads that are rehabilitated presently remain at an acceptable quality and able to provide the outcomes that were intended of them. This is particularly pertinent in Sri Lanka where the bulk of the road work is still awaiting rehabilitation and as such, increasing level of maintenance funds will need to be provided in parallel with investments to bring the road network to maintainable standard. Therefore, any rehabilitation has to be supported by a source of sustained funding to</td>
<td>Section 3.1.3 RDA</td>
</tr>
<tr>
<td>Project</td>
<td>Description</td>
<td>References</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
</tr>
<tr>
<td>Improve Design Standard for Sri Lankan road users</td>
<td>Nearly 30% of the national roads have been rehabilitated or are in the process of being rehabilitated. Majority of the balance roads are presently in unsatisfactory condition or lacking the required capacity or proper geometric standards thus contributing to unnecessary delays and accidents.</td>
<td>Section 3.1.3 Highways Issues &amp; Constraints</td>
</tr>
<tr>
<td>Improve attention and funding given to traffic management and public transport facilities in road design and construction</td>
<td>Road projects have not given adequate attention to issues of traffic management in urban areas as well as in promoting public transport as the long-term solution in urban areas. Since the roads on which bus services operate are owned by agencies such as the RDA and PRDA there should be a greater interest from these agencies to promote facilities for bus transport. However in general road agencies do not consider it as their direct responsibility and currently do not have any expenditure heads for such investments even for insignificant things such as to erect a bus stop or to concrete a heavily used bus stop or to provide a shelter for bus passengers. Even foreign funded projects have in general failed to provide such funding.</td>
<td>Section 3.1.3 Highways Issues &amp; Constraints</td>
</tr>
<tr>
<td>Improve attention and funding given to road safety in road design and construction</td>
<td>Road projects also do not always practice maintain minimum safety standards in road works. This needs intervention from planning to implementation stages. In the planning and design stage it is required to ensure that curvatures on roads that are being improved subscribe to the increased speeds generated by improved surfacing and widening. Moreover, the requirement for pedestrian facilities on shoulder and of crossings needs to be incorporated. There has been a general tendency that roads that have been rehabilitated have led to higher accidents and increase in intensity of accidents as well.</td>
<td>Section 3.1.3 Highways Issues &amp; Constraints</td>
</tr>
<tr>
<td>Human Resource Development Strategy</td>
<td>Most highway agencies do not have an overall HRD strategy or funding. Even though few top managers get intermittent training this is inadequate. Moreover middle level and support staff hardly ever get training in use of computers or communication skills</td>
<td>Section 3.1.3 Highways Issues &amp; Constraints</td>
</tr>
<tr>
<td>Ensure steady funding for research and development of road sector requirements</td>
<td>It is recommended that an allocation of 0.05% (1/2000th) of the funds allocated as capital expenditure to the highway sector be allocated to research funding organizations as grants for disbursement to reputed research organizations for research and development programs on provincial, urban and rural roads. This will assist in improving</td>
<td>Section 3.1.3 Highways Issues &amp; Constraints</td>
</tr>
</tbody>
</table>
9.2 Railway

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
<th>Estimated Value &amp; Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provision of protection</strong></td>
<td>There are also approximately there are about 1,000 railway road crossings in the network. 200 such crossings</td>
<td>Section 3.2.3</td>
<td>LKR Rs 500 mn</td>
</tr>
<tr>
<td><strong>Improvement of busy junctions in Colombo City to reduce congestion and accidents</strong></td>
<td>The opening of the Southern and Katunayake Expressways and flyovers and vehicle control through signal lights at busy junctions to reduce road congestion and accidents in the City of Colombo and suburban areas.</td>
<td>MC 2010</td>
<td></td>
</tr>
<tr>
<td><strong>Road development in the Upcountry and North</strong></td>
<td>Special attention is pledged to develop roads in the up-country and the north</td>
<td>MC 2010</td>
<td></td>
</tr>
<tr>
<td><strong>Development of Provincial Roads</strong></td>
<td>Some 16,500 km of provincial roads are to be developed.</td>
<td>MC 2010</td>
<td></td>
</tr>
<tr>
<td><strong>Concreting of Rural Roads</strong></td>
<td>As a step towards providing the villages in Sri Lanka with basic facilities to ensure that urban migration is mitigated, all roads in the villages in Sri Lanka are to be concreted in an effort to ensure a high level of mobility between rural and urban areas.</td>
<td>MC 2010</td>
<td></td>
</tr>
<tr>
<td><strong>Promotion of Facilities on Roads for Bicycles and Pedestrians</strong></td>
<td>In urban areas to assure that separate infrastructure facilities exist for pedestrians and non-motorized vehicles on selected urban roads and designated regional roads where there is a potential demand.</td>
<td>Section 6.5 Non Motorized Strategies</td>
<td></td>
</tr>
<tr>
<td><strong>Setting up of Axle Load Control System</strong></td>
<td>To stipulate and control the axle loads of freight vehicles on roads to prevent damage of roads due to over loading.</td>
<td>Section 6.6 Freight Transport Strategies</td>
<td></td>
</tr>
</tbody>
</table>
### Chapter: Long List of Strategic Investments

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
<th>Estimated Value &amp; Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>at Road-Rail Crossings</strong></td>
<td>have been protected. Annually the SLR protects 3 or 4 crossings depending on the availability of funds. Installation of 240 level crossings at priority locations.</td>
<td>Railway Issues &amp; Constraints</td>
<td>LKR 1420 Mn. For Badulla improvement</td>
</tr>
<tr>
<td><strong>Rehabilitation track and bridges and replacement of assets</strong></td>
<td>Existing bridges can carry only about 16.5-18 tons. There is a requirement to develop the bridges in the network. Generally there are 55 engine failures per month in the network.</td>
<td>LKR 500 Mn.</td>
<td></td>
</tr>
<tr>
<td><strong>Installation of island-wide digital communication system</strong></td>
<td></td>
<td>LKR 250 Mn.</td>
<td></td>
</tr>
<tr>
<td><strong>Management Information system for SLR</strong></td>
<td></td>
<td>LKR. 10200mn.</td>
<td></td>
</tr>
<tr>
<td><strong>Construction of Sapugaskanda railway line</strong></td>
<td></td>
<td>Transport Policy</td>
<td></td>
</tr>
<tr>
<td><strong>Improving Connectivity to Port of Colombo</strong></td>
<td></td>
<td>2.2.1.3 Institutional Constraints</td>
<td></td>
</tr>
<tr>
<td><strong>Management Re-structuring</strong></td>
<td>Making SLR an efficient Public Enterprise with improved resource utilization through the introduction of modern railway management systems such as setting of performance KPIS and out sourcing of non-core activities and thereby improve financial performance.</td>
<td>2.2.1.3 SLR Institutional Constraints 3.2.3 Railway Issues and Constraints</td>
<td></td>
</tr>
<tr>
<td><strong>Physical Infrastructure Improvement and Modernization</strong></td>
<td>Poor condition of physical facilities such as signals, communication systems, rolling stick, stations, track, workshops and warehousing need to be modernized with introduction of customer friendly and ICT based services to both individual and corporate customers.</td>
<td>2.2.1.3 SLR Institutional Constraints 3.2.3 Railway Issues and Constraints</td>
<td></td>
</tr>
<tr>
<td><strong>Setting up Specialized Marketing Arm for Goods Services</strong></td>
<td>Improve marketing and get investment to increase share of goods transport which is a potential area of financial benefit for the railway to offset losses in passenger services.</td>
<td>2.2.1.3 Institutional Constraints</td>
<td></td>
</tr>
<tr>
<td><strong>Strengthening Investment Planning and Project</strong></td>
<td>Strengthening the Investment Planning and Project Evaluation systems in order to assess the total investment for total modernization of the railway network including track, bridges, signaling, telecommunication, and buildings and identify areas for potential private sector investments in none core activities.</td>
<td>2.2.1.3 Institutional Constraints</td>
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## Project
### Evaluation

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<th>Estimated Value &amp; Funding</th>
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<tbody>
<tr>
<td>Feasibility Studies on Proposed New Lines</td>
<td>To initiate studies to identify new rail connections to new economic centers as well as residential centers where rail connections are beneficial to economic growth and social development. While capital investment may be justified on grounds of better connectivity and political value, the financial sustainability would require some degree of commercial commitment possibly by entering in to MOUs with ports, free trade zones etc that would benefit from such connectivity. The SLR would require some guidance on how such ventures may be initiated.</td>
<td>3.2.3 Railway Issues and Constraints Section 6.2 Railway Strategies</td>
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<tbody>
<tr>
<td>Extension of Coastal Line to Beliatta/Hambantota</td>
<td>Extension of the coastal rail track up to Beliatta, the first extension since independence;</td>
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<tbody>
<tr>
<td>Uturu Mituru- restoration of Rail services to north.</td>
<td>The railway lines in the north and east are in need of restoration of damages due to conflict. While the work in the east is nearing completion, the Northern Line and the Talaimannar Line are to be restored in the next few years. The re-commencement of Yal Devi to Kankesanthurai and to Talaimannar by 2011 and extension to India thereafter after negotiations with India.</td>
<td>Section 3.2.3 Railway Issues &amp; Constraints Section 4.3.6 MC 2010</td>
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<tbody>
<tr>
<td>Luxury Train Service to BIA at Katunayake</td>
<td>A Luxury train service between Colombo and Katunayake International Airport is planned with park and ride facilities at many stations.</td>
<td>Section 4.3.6 MC 2010</td>
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<tbody>
<tr>
<td>Inauguration of a rail-based ICD</td>
<td>A railway based ICD is also to be constructed for container transportation, while goods transportation will be a key objective of the future train services.</td>
<td>Section 4.3.6 MC 2010</td>
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<tbody>
<tr>
<td>Electrification of Rail network in Colombo Metro Region</td>
<td>E Mobilize a study to pursue the electrification of suburban railways in heavy commuter area within Western Province</td>
<td>Section 4.3.7 MC 2010 Section 6.8 Strategy for Energy</td>
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<tr>
<td>Development of Plan to increase railway modal share</td>
<td>It is expected in the Development Plan of the SLR to increase the national modal share of passenger and freight sectors of railway from present 6% to 10% and from 2% to 5% respectively by 2016. The strategies to be adopted to achieve this are: To increase frequency, reliability and capacity of the suburban railway services. This will include electrification, station modernization and integrated ticketing. To reduce travel time of long distance and intercity services as well as to improve comfort of travel and to introduce value added services. Based on differential pricing intended to exploit consumer surplus by utilizing existing capacity surpluses.</td>
<td>Section 6.2 Railway Strategies</td>
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<tr>
<td>Develop a Revenue</td>
<td>Passenger concessionary tariff structure will be rationalized to ensure cost-effectiveness to the SLR. To</td>
<td>Section 6.2</td>
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### Long List of Strategic Investments

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<tbody>
<tr>
<td>Improvement Plan</td>
<td>identify and develop all sources of non fare box revenues including the development of property, right of way access to utility providers, auxiliary service, ground rentals, concessionaries etc. To formulate a railway fare policy on the line of the bus fare policy for future fare revisions.</td>
<td>Railway Strategies</td>
<td></td>
</tr>
<tr>
<td>Improver railway freight market</td>
<td>Railway freight tariffs will be de-regulated and the SLR will be permitted to determine tariffs competitively to attract freight transport from road to rail. The SLR will collaborate with the private sector towards achieving this objective.</td>
<td>Section 6.2 Railway Strategies</td>
<td></td>
</tr>
<tr>
<td>Railway Station Development Plan</td>
<td>Railway stations will be developed as service/commercial centers with private sector investment. Under station development program, 12 stations have been identified for the improvement in between Fort and Panadura. Though initial budgetary allocation was Rs. 100 mn, it has been reduced to Rs. 50 mn. So far studies have been done. Cabinet has approved the project in principles.</td>
<td>Section 6.2 Railway Strategies</td>
<td></td>
</tr>
<tr>
<td>Modernization of Technology and Management Processes</td>
<td>To modernize the railway transportations by replacing the outdated obsolete, procedures, processes and systems with modern management technique and systems. Modernizing the existing ticketing system to an online and integrated system.</td>
<td>Section 6.2 Railway Strategies</td>
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## 9.3 Bus Transport

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<tr>
<td>Strengthen Legislative Enactments for Private Buses</td>
<td>The proposed National Transport Commission (Amendment) Act will require institutional strengthening to expand its scope in regulation, planning and enforcement activities. While physical facilities in terms of a new building for this purpose have been made available, its supporting IT services in terms of hardware and software are being developed in 2010. It lacks middle and senior management expertise in regulatory and planning functions.</td>
<td>Section 2.2.3.3 NTC Institutional Constraints</td>
</tr>
<tr>
<td>Streamline Coordination of NTC with Provincial regulatory authorities</td>
<td>The different interpretation by some provincial authorities of the powers devolved by the 13th Amendment to the Constitution has led to difficulties in enforcing regulatory regimes across provinces such as the national policy on implementation of integrated time tables, formation of management companies of private bus operators etc</td>
<td>Section 2.2.3.3 NTC Institutional Constraints</td>
</tr>
<tr>
<td>Improve Financial Independence of NTC as a National Regulator and PRPTAs as Provincial Regulators</td>
<td>The NTC is currently dependent on Treasury funding for its capital programs. The surplus regulatory revenues which have hitherto not been tapped are now being utilized for this purpose through competitive tendering. This has to be further strengthened with the full implementation of the provisions of the proposed NTC Amendment Act.</td>
<td>Section 2.2.3.3 NTC Section 2.5.2.3 PRPTA Institutional Constraints</td>
</tr>
<tr>
<td>Complete the Reform of the Private Bus Sector</td>
<td>The current regulatory regime of managing individual bus operators is ineffective and inefficient. The Land Transport Policy sets out the intent of the Government to form corporate management entities. Some Pilot companies are functioning satisfactorily. The NTC is set to implement this for all inter-provincial routes using Treasury funding for this purpose. While there are requests from provincial authorities and intra-provincial bus operators there are no committed funds for this purpose for assisting the new companies (there may be around 150) and for training the RPTAs accordingly. It is stated that the small and medium scale entrepreneur characteristics of the bus service would be protected while strengthening the state owned bus fleet.</td>
<td>Section 2.2.3.3 NTC Institutional Constraints Section 3.3.1.3 Bus Transport -Constraints &amp; Issues Section 4.3.8 MC 2010</td>
</tr>
<tr>
<td>Improve Costing of Bus Services for SLTB</td>
<td>The SLTB requires costing of services in order to ensure profitability of services and receipt of reasonable cost reimbursements for socially necessary services operated as per Government Policy.</td>
<td>Section 2.2.4.3 SLTB Institutional Constraints</td>
</tr>
<tr>
<td>Provide a MIS and KPIs for Improved Management of SLTB</td>
<td>There are much inefficiency due to poor controls and reporting systems within the organization. The SLTB is currently developing MIS capabilities in house. However attracting and retaining IT competent staff is an issue as is the adoption of such systems by the rank and file of the organization. There is a need to set up realistic performance indicators for different aspects of the organization. The SLTB Act also provides for the adoption of these measures. KPIs in input utilization and efficiency measures covering all the different aspects are required to ensure that all</td>
<td>Section 3.3.3.3 SLTB Issues &amp; Constraints</td>
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<tr>
<td>Improving Management and Technical expertise by training</td>
<td>The SLTB does not have the adequate management competencies to professionally manage and operate a fleet of 5,000 buses. It requires continuous training programs for middle and senior level officers in SLTB’s management, operational and technical fields especially to adopt new technologies, management principles and commercial orientation and to improve trade union understanding of reforms and need for change.</td>
<td>Section 2.2.4.3 SLTB Institutional Constraints Section 3.3.3.3 SLTB Issues &amp; Constraints</td>
</tr>
<tr>
<td>Inculcate a Commercial Orientation</td>
<td>In the face of competition from the private sector, it is imperative for the SLTB to develop a commercial competency to introduce new services and to expand its customer base by offering a better and more attractive new service especially to niche markets.</td>
<td>Section 3.3.3. SLTB Issues &amp; Constraints</td>
</tr>
<tr>
<td>Develop a Business Plan for SLTB to be financially independent</td>
<td>Inadequacy of bus fleet and management capacity to operate the targeted time table. Poor quality of infrastructure facility such as depots, bus terminals and garages leads to poor utilization of resources and increased costs of operations. A Business plan to ensure steady investments is required.</td>
<td>Section 2.2.4.3 SLTB Institutional Constraints</td>
</tr>
<tr>
<td>Require to expand regulatory roles of PRPTAs</td>
<td>Confined to mainly issue and renewal of route permits and in management of terminals and needs to expand regulatory roles to ensure better quality of services provided to public including KPIs.</td>
<td>Section 2.5.2.3 PRPTA Institutional Constraints</td>
</tr>
<tr>
<td>Build up competency of PRPTAs in Regulation</td>
<td>Lacks professional managers who have transport regulatory and planning expertise.</td>
<td>Section 2.5.2.3 PRPTA Institutional Constraints</td>
</tr>
<tr>
<td>Requires Business Plan for Investment for Improvement and Management of Bus Terminals managed by NTC, PRPTAs, SLTB, UCs, LAs</td>
<td></td>
<td>Section 2.5.2.3 PRPTA Section 2.6.1.3 ULAs Institutional Constraints</td>
</tr>
<tr>
<td>Introduction of ICT environment for transport regulation</td>
<td></td>
<td>Section 2.5.2.3 PRPTA Institutional Constraints</td>
</tr>
<tr>
<td>Improve Public Relations of all Regulatory Staff</td>
<td>Requires greater direct public and service user interaction to serve issues faced by the public.</td>
<td>Section 2.5.2.3 PRPTA Institutional Constraints</td>
</tr>
<tr>
<td>Undertake an integrated transport</td>
<td>There is a lack of network planning to facilitate easier transfers and hubbing operations of buses at different locations. Integration between rail and buses and between private and SLTB services as well as inter-provincial as well as intra-</td>
<td>Section 3.3.1.3 Bus Transport-Constraints</td>
</tr>
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### Project | Description | References
--- | --- | ---
**Network Plan for the Country** | Provincial services is required to implement such an endeavour. | & Issues

**Quality Assurance Program for Bus Industry** | Buses have deteriorated in quality of services in terms of (a) quality of vehicles used; (b) conduct of crew; (c) value added services; (d) reliability; (e) comfort. The NTC has adopted a Quality Assurance program to benchmark quality of buses and to improve them periodically, as well as to train bus crews, formulate time tables; implement maximum loads etc. There is a need to extend this to the PRPTAs urgently. | Section 3.3.1.3 Bus Transport- Constraints & Issues

**Patronage Recovery Program in Urban Areas** | Due to poor performance of the public transport sector especially in urban areas, and coupled with rising incomes, the modal share of bus passengers seems to be reducing yearly. This will badly affect the mobility in urban areas and will become a growing problem in future years. Higher quality urban bus transport on the lines of the CityLiner service commenced by the NTC is an initiative that needs to be pursued quickly. | Section 3.3.1.3 Bus Transport- Constraints & Issues

**Develop Timetables and dispatch schedules for all bus routes island-wide** | Several initiatives have been taken since 2003 to implement time tables and dispatching schedules on bus routes. However only the Southern RPTA and the NTC have been partially successful in this due to resistance from operators who have monopolized fixed times. Currently the Government Policy determines that all time table should integrate both SLTB and private buses and that individual private operators should be placed on a roster system in allocating slots on the time table. NTC timetables will be completed by end of 2010, but many PRPTAs need assistance in this regard. | Section 3.3.1.3 Bus Transport- Constraints & Issues

**Road Safety Enhancement Program for Bus Industry** | One of the problems of deregulation has been the sharp rise in accidents caused by inability to enforce standards of bus services due to weak regulatory structures. Accidents involving buses claim over 300 lives annually. Some reduction has been achieved over the last 3 years due to implementation of time tables, bus crew training and better enforcement on inter provincial routes. This needs to be extended to intra-provincial and SLTB services. | Section 3.3.1.3 Bus Transport- Constraints & Issues

**Introduction of ICT and modernization of user facilities** | One of the most outstanding deficiencies the transport system is the lack of modernization across the entire transport system. At present there is hardly any use of modern ICT based applications or computer based applications in the planning, operations or in the public information dissemination within the sector. | MC 2010

**Passenger Facility Development & Management** | Another area where standards have deteriorated is in bus terminals and stops. Even though the last few years have seen some investment for the development of bus terminals in different parts of the country there is no program of funding for this purpose. Besides this design standards for such infrastructure needs to be formulated together with sustainable business models. | Section 3.3.1.3 Bus Transport- Constraints & Issues

**Special Tax and VAT Relief program for replacement of buses for private sector.** | Special tax relief and VAT relief is to be granted to private bus operators while steps will be taken to address the problems faced by them especially issues in relation to leasing of vehicles, the purchases of spare parts and the new purchase of vehicles. | Section 4.3.8- MC 2010

**Competition Framework for SLTB and private Sector** | In terms of bus transport the manifesto affirms that the maintenance of a healthy relationship between SLTB and private bus operators is a very important aspect in public passenger transport service | Section 4.3.8- MC 2010
### Project | Description | References
--- | --- | ---
Grant Insurance Scheme and Pension for Bus Crews & Employees | To grant insurance scheme and pension schemes for drivers and conductors of both SLTB and private bus service in order to improve working conditions and self esteem among bus sector employees. | Section 4.3.8 –MC 2010
## 9.4 Aviation

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<tr>
<td>Offer Incentives for investment and technical upgrade in domestic aviation services</td>
<td>Lack of technical and financial capacities of domestic investors in the sector has become a barrier to improve the quality of domestic services.</td>
<td>Section 2.4.1.3 – CAA Institutional Constraints</td>
</tr>
<tr>
<td>Enable total industry regulatory oversight</td>
<td>Legal provisions vested on the Authority are not still fully enforceable due to political interference and deficiencies in legal provisions. Civil Aviation Bill which went through a tedious legal and administrative process lasting eight years was finally presented to the Parliament in July 2008, but it is still not implemented due to concerns raised by State agencies.</td>
<td>Section 2.4.1.3 – CAA Institutional Constraints</td>
</tr>
<tr>
<td>Enhance entry education and continuous development for aviation professionals</td>
<td>Shortage of local professionals in aviation industry and continuous technical training at higher levels as demanded by competition in international market.</td>
<td>Section 2.4.1.3 – CAA Section 2.4.3.3 – Srilankan Airlines Institutional Constraints</td>
</tr>
<tr>
<td>Develop an airport master plan to develop domestic and international airports both existing and new</td>
<td>To provide adequate world class airport infrastructure capacity in keeping with the demand, while ensuring the maximum utilization of available capacities and improving management efficiencies thereof. When addressing the future airport needs through a properly coordinated and integrated airport master plan recognizing the importance of airports as an important element of the national economic infrastructure; Local airports to be speedily developed to cater to the needs of domestic air travel particularly to cope with the renewed demand for tourism.</td>
<td>Section 2.4.2.3 – AASL Institutional Constraints Section 2.4.3.3 – Srilankan Airlines Institutional Constraints</td>
</tr>
<tr>
<td>Fleet renewal of Srilankan Airlines</td>
<td>Higher investment required for fleet renewal</td>
<td>Section 2.4.3.3 – Srilankan Airlines Institutional Constraints</td>
</tr>
<tr>
<td>Develop a Business Plan to Develop BIA as Stopover Airport</td>
<td>To develop a Business Plan to promote the BIA as a stopover airport by marketing shopping, sightseeing, getaway holidays centered around the airport on the lines of airports such as Dubai and Singapore.</td>
<td>Section 3.5.1.3 Aviation Issues &amp; Constraints</td>
</tr>
<tr>
<td>Develop a Regional Air-hub for southern half of South Asia</td>
<td>The aviation sector should be at international competitive level and be able to face with new challenges consequent to development such as the emergence of BIS as a hub in air navigation in the region.</td>
<td>Section 3.5.1.3 Aviation SAARC Multimodal Regional Transport Study MC 2010</td>
</tr>
<tr>
<td>Develop multi-modalism</td>
<td>All existing and new airports need to be integrated to other modes of land transport namely the road network,</td>
<td>Section 3.5.1.3 Aviation</td>
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<tr>
<td>at airports</td>
<td>railway and bus routes for providing choices among modes for access to these airports. To stimulate economic activities, integration of air transport with other modes of transport.</td>
<td>Issues and Constraints Section 5.2 Aviation Policy; Section 6.1 Aviation Policy</td>
</tr>
<tr>
<td>Strengthen regulatory role of CAA</td>
<td>Strengthen the capacity of the Civil Aviation Authority (CAA) of Sri Lanka Update the regulatory powers and enforcement provisions in the applicable aviation legislation to ensure that there is management of future safety risks, including the necessary powers to deal decisively and properly with operations that do not meet safety standards. Also develop a coordinated national air traffic management platform. Develop a charging regime that would reduce the burden of regulatory fees on airlines.</td>
<td>Section 5.2 Aviation Policy</td>
</tr>
<tr>
<td>Implement and Aviation Safety Management Plan</td>
<td>Providing state of the art technological applications that offer safety and efficiency for air traffic communication, navigation and surveillance in compliance with the Regional Air Navigation Plans; Implement an aviation disaster management plan in coordination with the relevant authorities responsible for national disaster management;</td>
<td>Section 5.2 Aviation Policy</td>
</tr>
<tr>
<td>Improve handling of air cargo</td>
<td>Establish and maintain a regulated air cargo agents scheme, creating a secure chain of custody for cargo from the consignor to the aircraft for efficient and effective air cargo operations in Sri Lanka;</td>
<td>Section 5.2 Aviation Policy</td>
</tr>
<tr>
<td>Improving passenger air traffic</td>
<td>Continue the liberalization of air services arrangements for passenger, cargo and mail services with a view to harnessing the economic, trade and tourism benefits that flow from opening up international aviation markets resulting in a strong aviation sector with wider connectivity and ensure that capacity available for Sri Lanka registered airlines is adequate. To encourage multiple local carriers for international air services. To strengthen domestic air links between Colombo and remote areas.</td>
<td>Section 5.2 Aviation Policy; Section 6.1 Aviation Policy</td>
</tr>
<tr>
<td>Assessment of Opportunities for Private Sector Investments</td>
<td>Assess the feasibility of foreign investments, or private public partnerships in the development, operation and maintenance in the local aviation sector for airports, airlines, , establishing maintenance and manufacturing organizations and training centers etc….and determine the conditions under which such investments be permitted;</td>
<td>Section 5.2 Aviation Policy</td>
</tr>
<tr>
<td>Develop a domestic air travel terminal at BIA</td>
<td>A domestic terminal will be established at Bandaranaike International Airport to link other domestic aerodromes. Also to investigate the need for a 2nd runway at BIA.</td>
<td>Section 5.2 Aviation Policy</td>
</tr>
<tr>
<td>Construction of 2nd international airport</td>
<td>Develop a second international Airport with a domestic terminal.</td>
<td>Section 5.2 Aviation Policy</td>
</tr>
<tr>
<td>Develop Charging Regimes</td>
<td>Consider options to help address the burden of regulatory charges, including charges on the general aviation sector;</td>
<td>Section 5.2 Aviation Policy</td>
</tr>
<tr>
<td>Encourage the development of aerodromes for low capacity aircraft</td>
<td>Encourage use of water bodies as water aerodromes for domestic aviation; Encourage use of public open areas for helicopter operations</td>
<td>Section 5.2 Aviation Policy</td>
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### Review of Sri Lanka Transport Sector

#### Chapter: Long List of Strategic Investments

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<tr>
<td>Provide continuous training programs for professionals and skills development in the aviation sector.</td>
<td>Continue to encourage the education and skills training framework in all specializations, up to conferring degrees in aviation in order to enhance the professionalism in the aviation industry; Promote private sector investment for the establishment of training centers for pilots, flight engineers, air traffic controllers.</td>
<td>Section 5.2 Aviation Policy</td>
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<td>Section 6.1 Aviation</td>
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9.5 Multi Modalism

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<tr>
<td>Public Transport Terminal for Bandaranaike International Airport at Katunayake</td>
<td>Currently, the railway line stops around 200 metres short of the terminal. Bus terminal is also located a similar distance away. There is no interfacing between air passengers and public transport leading to heavy presence of traffic and congestion around the airport. A Luxury train service between Colombo and Katunayake International Airport is planned with park and ride facilities at many stations.</td>
<td>Railway Development Plan, Land Transport Policy MC 2010</td>
</tr>
<tr>
<td>Develop a few multi modal rail/bus terminals in key town centres such as Colombo, Kandy, Galle, Jaffna, Anuradhapura</td>
<td>Buses are not providing adequate access to other modes of transport such as the railway stations and airport. These require investment in better multi modal terminals as well as better understanding between the different transport operators and a greater degree of initiatives by the regulators. Also the NTC Amendment Act proposes recognizing the NTC as the focal point for coordinating such inter-modal matters in transport. This requires institutional support in terms of training of suitable staff.</td>
<td>Section 3.3.1.3 Bus Transport-Constraints &amp; Issues Section 3.8 Multi Modal Constraints &amp; Issues</td>
</tr>
<tr>
<td>Development of Bastian Mw/Pettah Multimodal Terminal to International Standard</td>
<td>There is a need to develop some models of multimodal terminals across the country as a demonstration of this subscribing to international standards. A transport zone is to be established integrating all bus terminals in Colombo with the Fort railway station to provide effective and efficient services to hundreds and thousands of passengers. The proposed Bastian Mawatha Multi Modal Terminal in Pettah is intended to do this and a private public partnership based on a sound business plan is required.</td>
<td>Section 3.8 Multi Modal Constraints &amp; Issues MC 2010</td>
</tr>
<tr>
<td>Promote Park and Ride and other Multi Modal Coordinated Services</td>
<td>Systems such as park and ride are yet to be fully developed. Promotion of park and ride facilities at selected railway stations is one such opportunity. Developing a typical Business Model for the private sector to develop such facilities without railway loosing ownership of its land is one such initiative that needs to be pursued.</td>
<td>Mc 2010</td>
</tr>
<tr>
<td>Inauguration of a rail-based ICD</td>
<td>A railway based ICD is also to be constructed for container transportation, while goods transportation will be a key objective of the future train services.</td>
<td>MC 2010</td>
</tr>
<tr>
<td>Set up rail based Logistics Centres</td>
<td>To assist in developing several rail based Logistics Centers or Villages in close proximity to the port and the airport so that they can function as Inland Container Depots as well as logistics centers.</td>
<td>Section 6.6 Strategy for Railways</td>
</tr>
</tbody>
</table>
### Setting up a sea-air hub

To take urgent steps to facilitate the development of a sea-air hub for freight transport with good land transport connections using both rail and road.

### Undertake Multi-modal passenger transport sector development study

A study is proposed to set out a strategic intervention plan to translate the following objectives of the Land Transport Policy in to a strategic action plan. This would be to:

- Ensure the adequacy of transport infrastructure and services required to support the goals of sustainable economic growth, and social development at all times and across all communities.
- Ensure optimum utilization of existing resources in terms of transport infrastructure and equipment across all networks, modes and users.
- Ensure that a minimum level of access to basic services is provided to all segments of the society.
- Ensure that users of transport systems are provided with reasonable choices of modes of transport and access to up to-date information to make informed decisions.
- Manage overall vehicle fleet and usage, especially to discourage the number of people commuting in single occupancy vehicles in urban areas by improving public transport and other measures.
- Reduce social-exclusion by providing appropriate transport facilities, especially for the improved mobility of the elderly and the differently-abled.
- Improve safety and security for all users of the different transport systems.
- Ensure competitiveness between and among modes and providers while protecting the interests of the Government in providing State-owned transport services and by giving confidence to the private sector to invest in and to improve areas of the transport sector wherein private investments are solicited.
- Ensure the systematic infusion of capital in to the development of new transport infrastructure through Government funding as well as private investment or the establishment of a transport fund or a levy of a toll or tax on fuel.
- The Government will pay particular attention to the alarming deterioration of the quality of our environment caused by transport activity. It will take steps to minimize the damage to the environment especially with respect to air quality, noise and impacts to the flora and fauna. It will therefore systematically upgrade to transport technologies that are less polluting and also work towards reducing excessive travel particularly through environmentally sensitive areas.
- The Government will also take all steps to encourage the patronage of modes which are environmentally less polluting. It will also take steps to gradually reduce the impact of such pollutants on passengers of public and para-transport, other road users and those in the vicinity of transport corridors.
- To reduce the dependency on petroleum fuels for its mobility requirements and to promote less energy consuming modes of transport, reduction of unnecessary travel, improved vehicle technology and better management of transport systems including that of the road network and public transport network.
- Encourage through fiscal and non-fiscal measures, the conversion and adoption of alternative fuels.

### References

- Section 6.6 Strategy for Railways
- Section 5.1 National Policy on Land Transport Section 5.12.3 and Section 5.13.
Review of Sri Lanka Transport Sector

Chapter: Long List of Strategic Investments

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Develop Transport Impact Assessment procedures and legislation</td>
<td>To ensure that major land developments would not impede the overall transport function including the deterioration of mobility in transport. As such it will require Transport Impact Assessments to be carried out for such developments. It will also require comprehensive Transport Capacity Assessments for large scale development plans including town development and regional development.</td>
<td>Section 5.1.6 – Land Use Principles</td>
</tr>
<tr>
<td>Encourage Freight based Multi Modalism</td>
<td>All three commercial ports had been connected by railway lines. However, no trains operate at present to or from the Colombo Port. Needs to have more railway connections to ports.</td>
<td>Section 3.7.1 Freight Transport Issues Constraints</td>
</tr>
<tr>
<td>Improve Cross Docking system for Marketing of Perishables</td>
<td>It is evident that more than 30% of the agriculture produces go waste before reaching the consumer. Marked differences between farm gate prices and retail prices prove the inefficiency in perishable produce transportation. This highlight the problems of high transport costs in most sectors of the economy, indication greater investment in the development of the logistics for goods transport and the supply chain.</td>
<td>Section 3.7.1 Freight Transport Issues Constraints</td>
</tr>
<tr>
<td>Road User Charges Study</td>
<td>The previous such study funded by the World Bank was dated 1992. This requires to be updated taking in to account the changing vehicles fleet, fuel taxes, road user costs, tax structures, environmental and other impacts.</td>
<td>Section 5.1 Land Transport Policy</td>
</tr>
<tr>
<td>Multi Modal Logistics Study</td>
<td>Therefore, the Government will intervene in the study and planning of transport modes, locating of warehousing and influencing the distribution functions in the supply chain process. It will also assist private sector development of such identified locations by means of fiscal and non-fiscal incentives. Furthermore assistance will be given for modernization of freight handling through improved information communication technologies, cargo handling equipment and specialized vehicles. Special emphasis will be given to ensuring multi modal access to all seaports, airports and dry ports.</td>
<td>Section 5.1 Land Transport Policy</td>
</tr>
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9.6 Other Modes of Transport

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<thead>
<tr>
<th>Project</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Bicycle Lanes and Paths in Urban areas</td>
<td>Provision of separate bicycle lanes where possible.</td>
<td>Section 2.2.2.3 RMV Institutional Capacity</td>
</tr>
<tr>
<td>Provision of Access for Differently-able Persons</td>
<td>There are very few facilities at present for the differently-abled persons in society. Facilities in public</td>
<td>Section 3.3.1.3 Bus Transport Issues &amp; Constraints</td>
</tr>
<tr>
<td>Implementation of Government Policy on Three Wheelers</td>
<td>To register as Hiring Vehicle operators in order to provide a more efficient and organized Call Centre based service without loosing individual ownership of vehicle.</td>
<td>Section 3.4.4. Para Transit – Issues and Constraints</td>
</tr>
</tbody>
</table>
### Feasibility Study for Indo-Sri Lanka land Bridge

As Sri Lanka is an island and as there is no land bridge across the Palk Strait, there are no international intra-regional roads or railways at present. One of the railway lines from Colombo, north bound to Talaimannar Pier on the north-western coast of Sri Lanka is opposite Rameshwaran, located across the Palk Strait in Tamil Nadu State of India. On both sides the railway lines have been designated as links in the Trans-Asian Railway (TAR). If a land bridge were to be constructed it would connect to the Trans Asian Railway (TAR) via the Indian Railway network which is also now being converted to broad gauge. Moreover the plan to construct, 400 km of high mobility roads required to support the island’s growing economy could become a part of an Asian Highway system in the future. There is need to undertake a feasibility study for the purpose of a land bridge. The approval of the respective Governments would have to follow subsequent to establishing technical, economic, environmental feasibility and a sound investment plan as well.

### Encourage operation of Ferry Service between Colombo and South Indian cities

More recently two other proposals have been made for the re-connection of Sri Lanka and southern India by direct shipping services. These are proposals for ferry services between (a) Colombo and Tuticorin and (b) Colombo and Cochin. The proposal for the service between Colombo and Cochin was approved by both countries in principle in June 2009 in Colombo. However there have been no takers from the private sector as yet.

### Social Insurance Scheme for Three Wheeler owners

A social insurance scheme for three wheeler owners

### Popularizing Use of Bicycles

To improve awareness of safety aspects in the use of such vehicles and popularizing the use of safety equipment on bicycles. To perovide a special scheme for financing the purchase of bicycles through the rural banking system. To take steps for schools and offices to encourage the use of bicycles and for the provision of parking or stacking and security of such. To develop park and ride facilities near railway stations and bus stops for bicycles so that greater degree of choice is provided for door to door services.

### Improvements to Standards in Goods Transport

Ensuring that taxes, licensing fees etc are computed on the basis of actual costs and that external costs are considered in effecting incentives to particular modes of transport such as railway for heavy goods movements. That all motorized goods vehicles be subjected to a Goods Vehicle Conformity Certificate which will have to be renewed every 3 years. To stipulate safety standards for the industry. To provide tax incentives for modern vehicles and equipment that will improve the performance of the industry and bring it on par with international standards.
## Review of Sri Lanka Transport Sector

### Chapter: Long List of Strategic Investments

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulating the handling and carriage of hazardous goods. Regulating and monitoring of driver work and rest hours for goods vehicles drivers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To assist the setting up of one or more modern warehouses</td>
<td>Undertake modernization of technology used in the goods and logistics sector such as for packaging, handling, warehousing and e-commerce through continuous funding for research and development.</td>
<td>Section 6.7 Goods Transport Strategies</td>
</tr>
<tr>
<td>Set up Database and Planning Cell for Logistics Sector</td>
<td>To assist the National Transport Commission to maintain a database of planning and operational information on supply chain movements and logistics for the sector and to engage in the development of strategic plans to improve the efficiency of the sector.</td>
<td>Section 6.7 Goods Transport Strategies Section 6.8.5 Strategy for Transport Planning</td>
</tr>
<tr>
<td>Rural Transport Mobile</td>
<td>Set up mobiles for assessing transport needs in rural areas</td>
<td>Section 6.7 Goods Transport Strategies</td>
</tr>
</tbody>
</table>
## 9.7 Vehicle Administration & Safety

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
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</thead>
<tbody>
<tr>
<td>Study to determine the Recovery of Road User Costs</td>
<td>Ensure that the pricing of fuels is such that it discourages unwarranted use especially when reasonable options of a more energy efficient nature are available. As such to ensure that economic costs including pollution costs are always recovered.</td>
<td>Section 6.8.2 Strategies for Energy Land Transport Policy</td>
</tr>
<tr>
<td>Improve Technical Capacity of Motor Vehicle Management System at RMV</td>
<td>Enhance technical awareness of staff and obtain required modern equipment for testing of vehicle fitness.</td>
<td>Section 2.2.2.3 RMV Institutional Capacity</td>
</tr>
<tr>
<td>Decentralize vehicle administration functions to District Secretariat Levels especially using internet access</td>
<td>Adequate and facilities and coordination systems are required to enable more centralised function be carried out at DS level.</td>
<td>Section 2.2.2.3 RMV Section 2.5.3.3 PCMT Institutional Capacity</td>
</tr>
<tr>
<td>Public Awareness Campaign to improve compliance by public</td>
<td>Increase awareness on road and vehicle use legislation and regulations and to strengthen enforcement through more staff, better training and technical support of databases and equipment as required.</td>
<td>Section 2.2.2.3 RMV Institutional Capacity</td>
</tr>
<tr>
<td>Extend the and Improve the Services of the NTMI</td>
<td>Extend service to cover all island and also improve service levels offered to public and introduce new technologies for testing of drivers to ensure compliance to legislative requirements of the different agencies.</td>
<td>Section 2.2.5.3 NTMI Institutional Constraints</td>
</tr>
<tr>
<td>Improve the effectiveness of the NRCS and NRSS</td>
<td>Facilitate the institutional strengthening and political support to highlight the need for intervention in safety management. To build up institutional capacity for effective implementation of road safety policy.</td>
<td>Section 2.2.6.2 NRCS Institutional Constraints</td>
</tr>
<tr>
<td>Generate Political Will for Reducing Traffic Accidents</td>
<td>A major problem in the arrest of traffic accidents has been the lack of political attention given to the problem. Over the years much investment have been made on infrastructure but very little has been invested in safety to make a significant change.</td>
<td>Section 3.9.2 Road Safety Constraints &amp; Issues</td>
</tr>
<tr>
<td>Enhancing Safety in Road Designs</td>
<td>Lack of adequate levels of safety features incorporated in road projects especially in rehabilitation projects where facilities for pedestrians and non-motorized vehicle users have not been adequately provided for.</td>
<td>Section 3.9.2 Road Safety Constraints &amp; Issues</td>
</tr>
<tr>
<td>Improve Road Worthiness Testing of Motor Vehicles</td>
<td>Moreover, attention on checking of motor vehicles road worthiness has also remained at a primitive level.</td>
<td>Section 3.9.2 Road Safety Constraints</td>
</tr>
</tbody>
</table>
## Project Description

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<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
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<tbody>
<tr>
<td><strong>Improve Driver Training and Safety Awareness</strong></td>
<td>Safety aspects on driver awareness training, publications and publicity have not been considered over the years.</td>
<td>Section 3.9.2 Road Safety Constraints &amp; Issues</td>
</tr>
<tr>
<td><strong>Tax Relief for encouraging environmentally friendly three wheelers</strong></td>
<td>Tax relief and soft loans to encourage the introduction of environment friendly three wheelers have been identified.</td>
<td></td>
</tr>
<tr>
<td><strong>Pricing policy to encourage energy efficient vehicles</strong></td>
<td>Provide incentive for new technologies such as hybrid vehicles and new source of fuel such as bio fuel. To study the possibility of introducing less pollution or zero pollution vehicles for public transport vehicles and taxis.</td>
<td>Section 6.8.2 Strategies for Energy</td>
</tr>
<tr>
<td><strong>Setting up of Transport Energy and Pollution Database</strong></td>
<td>To maintain an updated database on the status of the environment and ensure public awareness of the situation and to enlist public support in managing the environment with respect to transport use.</td>
<td>Section 6.8.2 Strategies for Energy</td>
</tr>
<tr>
<td><strong>Implementation Strategy for Transport Pollution Control</strong></td>
<td>All vehicles should comply with noise standards stipulated under the proposed CEA Act and enforced under the provisions of the Motor Traffic Act. Adaptation of EURO II standard for both vehicles and fuels from 2010</td>
<td>Section 6.8.4 Environmental Strategy</td>
</tr>
</tbody>
</table>
### 9.8 Provincial Transport

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Provinces: Improving Transport Connectivity to Industrial Estates/Free Trade Zones etc</strong></td>
<td>It was noted that several industrial zones were considered poorly served in terms of meeting their transport needs.</td>
<td>Section 7.2.2 – Southern Province</td>
</tr>
<tr>
<td><strong>SP: A multi modal transport plan for Hambantota</strong></td>
<td>Given the mega projects that are being carried out, there is a need to However the combined synergies have not been studied by any agency. The duplications that may arise have also not been identified. Moreover the other development requirements to ensure the best returns for these investments in terms of supporting transport infrastructure and services such as bus and trucking services as well as railway services and logistics provides, hubs etc. have not been discussed yet. This includes identifying the different agencies responsible for provision of the infrastructure or services. This is particularly important since transport is provided at all three levels of government and identifying what each levels and what each agency under each level of government should undertake, needs to be planned and coordinated.</td>
<td></td>
</tr>
<tr>
<td><strong>EP: A special transport development package for rural mobility enhancement</strong></td>
<td>With livelihoods returning to normalcy in the EP and tourism which was one time a major economic factor also set to return, it would be necessary to develop the air strips in the EP for flights to and from Colombo, BIA and other tourist destinations. This coupled with integrated land transport would provide a much more attractive access to EP when compared to the road or rail connection which takes between 7 to 12 hours.</td>
<td></td>
</tr>
</tbody>
</table>
| **EP: Multi Modal Mobility Improvement Project**             | There are often instances where roads within a province are developed but nothing is done to improve the publicly available passenger and goods transport services. In other instances subsidies are provided by government for different transport services without the road infrastructure being up to the required standards to support such services. Both of these measures return sub-optimal benefits.  
In the EP, around 65% of the road network is in very poor condition. This is high when compared to most other provinces. The province has poor accessibility and mobility for basic services such as schools, markets hospitals etc. It is proposed that a pilot project be initiated in this province to couple both road infrastructure and rural transport services to ensure that the full benefits of road infrastructure investment translates to actually transport opportunities that are affordable to the rural population and thereby usable to develop their economic and social conditions. |                             |
| **WP: An Integrated Development along Outer Circular Road or Proposed Perimeter Road.** | Currently the WP acts as a bottleneck when travelling from one province to another through WP. Historically the road network, rail and bus networks have been thus aligned. The current travel patterns also are made through Colombo as all major commercial and administrative offices are located within Colombo or Sri Jayewardenepura. In order for new trading and transport patterns to form, it is necessary to develop integrated transport and land use development projects. This could be done on the OCH or if work on that has already commenced on the Perimeter. |                             |
### 9.9 Transport in Urban Areas

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ULAs: Increase funding made available for road maintenance</td>
<td>RMTF should be extended to ULAs on urgent basis.</td>
<td>Section 2.6.1.3 ULA Institutional Capacity</td>
</tr>
</tbody>
</table>
## Project | Description | References
--- | --- | ---
All ULAs: Training of engineers in road works and traffic management | With the rapid motorization of most urban areas there is no management plan for parking in most ULAs resulting in congested urban streets. Require continuing training programs | Section 2.6.1.3 ULA Institutional Capacity

All ULAs: Physical capacity building in road planning, quality assurance and monitoring works | Most ULAs do not have basic planning aids such as maps, databases, computers, survey levels etc. | Section 2.6.1.3 ULA Institutional Capacity

All ULAs: Strengthen the constitution and technical intervention level of Traffic Committees. | ULAs in general have not traffic management plan resulting in poor facilities for pedestrians and public transport passengers. Committees need better direction. | Section 2.6.1.3 ULA Institutional Capacity

All ULAs: Designated Parking areas for Three Wheelers | Provision of designating parking areas in town centres | Section 4.3.9 – MC 2010

Colombo MC: Development of Bastian Mw/Pettah Multimodal Terminal to International Standard | There is a need to develop some models of multimodal terminals across the country as a demonstration of this subscribing to international standards. A transport zone is to be established integrating all bus terminals in Colombo with the Fort railway station to provide effective and efficient services to hundreds and thousands of passengers. The proposed Bastian Mawatha Multi Modal Terminal in Pettah is intended to do this and a private public partnership based on a sound business plan is required. | Section 3.8 Multi Modal Constraints & Issues MC 2010 Section 7.7 Colombo City

Colombo MC: Implement a Rapid Transit System | The feasibility study for constructing a metro rail system/BRT system in the City of Colombo and in the sub-urban areas as the main mode of transport is intended to increase the efficiency and productivity thereby improving the environment and public health. | Section 4.3.7 MC 2010

Avissawella UC: Transport & Traffic Improvement Program | Avissawella town provides a classic case of poor transport planning that has led to town centre traffic congestion and chaos. A by pass road, traffic management scheme are all that is required to alleviate these issues as well as to open up new land areas for modernising and expanding the city area. | Section 7.8 Avissawella

All Small Towns: Small Town Transport & Traffic Improvement Program | Many towns such as Moratuwa, Avissawella and Vavuniya evaluated in this report has typical traffic congestion arising from total absence of systematic traffic management system with road space used for a myriad of purposes each conflicting with the other resulting in poor utilisation of road space, poor mobility, access as well as safety. | 

Moratuwa: Transport & Traffic Improvement Program | It is proposed that Moratuwa could be offered a program whereby these traffic management programs could be improved along with the development of a multi-modal transport centre at the railway station including the bus terminal which will provide a high level of seam less travel with modern conveniences, technology and terminal design. |
<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vavuniya: Transport &amp; Traffic Improvement Program</td>
<td>The congestion in the town has got increasingly more chaotic with the large demand for travel arising from people been allowed to leave the IDP camps. It is proposed that Vavuniya could be offered a program whereby these traffic management programs could be improved along with the development of a multi-modal transport centre at the railway station including the bus terminal which will provide a high level of seam less travel with modern conveniences, technology and terminal design.</td>
<td>Section 7.10.5 – Vavuniya Issues &amp; Constraints</td>
</tr>
</tbody>
</table>
### 9.10 Capacity Development for Improving Transport Sector

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Reform for Transport Planning function</td>
<td>Assist the institutional reform and capacity building to facilitate multi-modal transport sector data collection, data processing, planning, inter-agency coordination, project formulation, research and development.</td>
<td>Land Transport Policy, Proposed NTC Amendment Act</td>
</tr>
<tr>
<td>Professional Training Programs</td>
<td>There are several hundred middle-level managers, operators, trade union leaders engaged in the sector who have not had opportunity to be aware of the function of transport and its developments over time. Continuing Professional Development Programs should be designed to be delivered as fee levying course by leading educational institutions at university, vocational training level. Some train the trainer programs may be required in terms of short courses for such resource persons.</td>
<td></td>
</tr>
<tr>
<td>Develop R&amp;D competency in the transport sector</td>
<td>Ensure the continuity of systematic planning and research for the continual development and modernization of the transport system in order to keep pace with the requirements of the global economy, technological advancement and the national socio-economic policy.</td>
<td>Section 6.8.6 R&amp;D Strategy</td>
</tr>
<tr>
<td>Develop on going HRD programs in the transport sector</td>
<td>Ensure the availability of human resources needed for the implementation of these plans. Ensure that all human resource inputs to transport sector are qualified and competent. This to be supported by accredited training programs covering all levels of employees across the transport sector.</td>
<td>Section 6.7 Goods Transport Strategies Section 6.8.5 Strategy for Transport Planning</td>
</tr>
<tr>
<td>Set up Database and Planning Cell for Logistics Sector</td>
<td>To assist the National Transport Commission to maintain a database of planning and operational information on supply chain movements and logistics for the sector and to engage in the development of strategic plans to improve the efficiency of the sector.</td>
<td>Section 6.7 Goods Transport Strategies Section 6.8.5 Strategy for Transport Planning</td>
</tr>
</tbody>
</table>
10 SHORT LISTING OF PRIORITY PROJECTS

The previous chapter listed over 150 projects under ten different categories with each such category representing either a specific mode of transport or geographic area of transport or an administration issue is given in a separate table. In order to prepare a short list of for prioritization from among all these projects.
## 10.1 Roads

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification - Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. National Roads</strong></td>
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</tbody>
</table>
| 1. National Roads Network Development Project | The National Roads master plan (NRMP) has identified rehabilititating 6,500 km in the period 2007-2016. Of this 2,500 km has been completed to date and the MC 2010 pledges to rehabilitate 4,000 km of national highways and 100 bridges. The RDA is currently updating the NRMP taking in to account the post-conflict economic and development requirements to identify these road links.  
*This will have multiple benefits in promoting trade, tourism and regional development especially in north and east.* | To (a) assess roads and links identified for rehabilitation in the updated NRMP for viability; (b) prioritize such roads list based on cost benefit and multi criterion analysis; (c) develop design standard for roads based on importance, number of lanes, functionality, safety, users inclusive of non motorized, parking and public transport users requirements in road design; (d) documentation of procedures and capacity building for safety audit of rehabilitation projects; (e) modification of road maintenance trust fund to include post rehabilitation maintenance funding; (f) strengthen institutional capacity in RDA to ensure compliance of axle loads and protection of clear right of way in such roads after rehabilitation and (g) design as per above specification and construction of an agreed km length of roads from among the feasible and prioritized list. | Cost of TA is estimated at USD 200,000 and cost of rehabilitation estimated at USD 1 million per km averaged for 2 and 4 lane road mix in both urban and rural settings as well as flat and hill country. | Provision of Rs 75 mn per km for 4,000 km made under foreign funding sources. |
| 2. Junctions Improvement Project | RDA has identified nearly 100 junctions that have exceeded their traffic handling capacity and/or have become accident prone black spots. This project subscribes to safety initiatives in MC 2005 and junction improvements in MC 2010 and Safety initiatives emphasised in Land Transport policy.  
*This will reduce heavy external transport network losses and in creating better urban centres that will promote trade and commercial hub.* | To (a) rank and prioritize these junctions on the national road network by level of service and safety record and perform a cost benefit analysis for improvement; (b) specifically develop design guidelines for junction improvement that will include requirements of vulnerable road users; (c) facilitate local research and development of cost effective improvements of local origin and (d) undertake design and improvements of an agreed number of such junctions that a found to be feasible and are in the prioritized list; | Cost of TA is estimated at USD 100,000 and cost of rehabilitation estimated at USD 250,000 per junction averaged for 2 and 4 lane road mix and different intersection control types. | No provision made. |
| **B. Provincial Roads** | | | | |
| 1. Development of Provincial Roads | Some 1,200 km of provincial roads are to be developed. Studies have identified provincial | To (a) study and develop an integrated provincial roads development program for the three most under provided | Cost of TA is estimated at USD 20 mn per km | Provision of Rs 20 mn per km |
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#### Chapter: Short Listing of Priority Projects 2010

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<tr>
<th>Project</th>
<th>Justification-Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
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<tbody>
<tr>
<td></td>
<td>institutional capacity building as lagging behind to manage major rehabilitation exercise. While there have been several programs to rehabilitate provincial roads, some provinces have been neglected. Special attention is pledged to develop roads in the up-country and the north MC 2010</td>
<td>provinces namely, WP, NWP and NP; (b) undertake a multi criterion analysis to determine the most cost effective rehabilitations; (c) carry out design and construction of an agreed length of such roads that are found to be feasible and in the prioritized order; (d) strengthen institutional capacity of the respective provincial road authorities in terms of human resource training, formulation of procedures in contract management, quality control/assurance and equipment; (e) assist capacity development of SME in road construction at provincial level.</td>
<td>200,000 per province and cost of rehabilitation estimated at USD 200,000 per km averaged flat and hill country.</td>
<td>for 1,200 km made under foreign funding sources.</td>
</tr>
<tr>
<td>C. Rural Roads</td>
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</tr>
<tr>
<td>1. Connectivity to Remote Villages</td>
<td>MC 2005 pledges to provide connectivity to the 6 percent of villages that have poor access. It is thus estimated that there are around 1,500 such villages.</td>
<td>To (a) assess the reasons for inaccessibility of poverty stricken remote villages already identified; (b) design and construction of selection of such infrastructure projects in terms of sections of roads, culverts and bridges to that are found to be feasible and ranked in a prioritization; (c) formulation of appropriate design standard for gravel, metal and concrete rural roads and for bridges; (d) formulation of community participation methods for construction and maintenance of such facilities; (e) formulation of the provision of transport services to serve needs of such villages.</td>
<td>Cost of TA is estimated at USD 200,000 and estimated cost of USD 10,000 for improvement to serve every village.</td>
<td>No specific allocation made other than under Maga Neguma program.</td>
</tr>
<tr>
<td>D. Urban Roads</td>
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<td></td>
</tr>
<tr>
<td>1. Redesign of Urban Roads for Improved Access &amp; Mobility</td>
<td>Transport Policy encourages space efficient and environmentally appropriate modes of transport in urban areas.</td>
<td>To (a) identify urban roads that have poor level of service and accidents; (b) select a pre agreed number of worst cases to redesign for separate infrastructure facilities for high quality public transport, pedestrians and non-motorized vehicles; (c) construction of selected infrastructure along with improved construction methods that minimize impact to high trafficked urban roads.</td>
<td>Cost of improvements estimated at USD 2 million per km on average for 2 and 4 lanes road mix.</td>
<td>No provision made.</td>
</tr>
</tbody>
</table>

This project will address how inaccessibility related causes of rural poverty could be solved.

This project will introduce modernization to urban transport, significantly reduce pollution and congestion and improve access to urban centres that in turn will promote the anticipated hubs identified as economic thrust area in MC 2010.
## 10.2 Railway

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification- Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Electrification of Railways in Colombo Metro Region</strong></td>
<td>In MC 2010, energy strategy in Land Transport Policy, Modernization of Public Transport, revitalization of railways in Land Transport Policy. Conceptual proposals have been carried out for electrification and for station development. This project will make railway a high quality mode of passenger commuting to Colombo City. With roads reaching capacity and per capita incomes increasing railways by offering a technologically and operationally superior product will attract high and middle income passengers from road to rail.</td>
<td>To (a) undertake a full feasibility study of the electrification of suburban railways in heavy commuter area within WP; (b) identification of station development (12 identified so far) and multi modal transfer locations; (c) development of Business Plans for projects that could attract private investments; (d) formulate inter modal connection; (e) develop ICT applications for passenger information and value added services; (f) design and construction of core electrification network; Improvement of Signals and Communications; Integrated ticketing; (g) construction of agreed number of stations; (h) construction of inter modal terminals.</td>
<td>Cost has been estimated at Electrification USD xxxxx; Station Development USD xxx per station and Intermodal terminal at USD 1 million per location.</td>
<td>Provision made (?)</td>
</tr>
<tr>
<td>2. <strong>Project to Expand Railway Freight Market</strong></td>
<td>A Strategy to make the railways more profitable also can be used to significantly reduce external dis-benefits of container transport within the city. This project will enable the railway become financially profitable, reduce congestion on urban roads, make port operations more efficient and assist in reducing costs for international trade thus increasing competitiveness of Sri Lankan products.</td>
<td>To (a) identify new links and existing links (e.g. Sapugaskanda Line) that can be developed for freight transport and development as rail based ICDs in WP; (b) integrate with road based haulage at such points as the interchange points on Outer Circular Highway and Colombo Port and BIA at Katunayake; (c) formulate procedures for improved institutional capacity to market services, provide value added services, improve reliability; (d) procure critical equipment such as flatbeds, loading and unloading equipment; (e) develop processes of managing out sourced operations; and (f) set up specialized marketing arm</td>
<td>Cost per ICD estimated at USD 2 million and minimum fleet of rolling stock and equipment estimated at USD 5 million</td>
<td>No provision made</td>
</tr>
</tbody>
</table>
## 10.3 Bus Transport

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification- Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Modernizing of Bus Terminals in Urban Areas</td>
<td>Buses currently transport the largest share of passengers to urban centers. But they do not have suitable terminals especially centres within the city with good access such as from trains, pedestrian walkways, park and ride facilities etc. The ones that exist within suburban areas are of extremely poor quality and unable to attract higher income passengers. The need to improve terminals has been highlighted in Land Transport Policy has highlighted.</td>
<td>To (a) undertake a needs assessment of bus terminals country wide; (b) select locations where viable multi modal linkages can be effected; (c) develop a business plan and management model for such terminals; (d) design facility; (e) assist in meeting construction cost as suitable joint venture where feasible and (f) provide training; equipment and develop processes for regulatory interventions by respective transport authorities</td>
<td>Cost of TA for needs assessment USD 100,000 and cost per facility approximately USD 1 million.</td>
<td>No provisions made</td>
</tr>
</tbody>
</table>

This Project will improve public transport patronage in Colombo and other major urban centers thus improving the thrust areas of commercial and transport hubs in urban centers.

## 10.4 Aviation

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification- Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Domestic Airports Development Project</td>
<td>Constraint identified in Aviation Policy and is required to implement the Aviation Hub identified in MC 2010</td>
<td>To (a) undertake a study to determine the development strategy for the domestic airports in keeping with other planned developments such as tourism, industries, ports, regional development strategies; (b) to identify the existing constraints; (c) undertake feasibility study of such developments; (d) identification of business development plans and financing of such improvements (e) design selected airports for domestic and/or regional travel; (e) construction of such airports and (f) capacity development of Airports Authority of Sri Lanka and the Civil Aviation Authority</td>
<td>Cost of TA USD 300,000 and average cost of development estimated at USD 5 mn per airport</td>
<td>Provision of Rs 24 (? billion made under private and government funding</td>
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</table>

This project will give a boost to development of aviation hub as well as development of tourism and industries in provincial areas.
10.5 Multi Modal

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification- Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
</table>
| 1. Multi-modal Transport & Logistics Study   | Land Transport Policy objectives have not been as yet linked to a development strategy. This study will enable the identification of the optimal transport network required to meet the needs and challenges arising from the development strategy of the Government as set out in MC 2010. It will also identify constraints for investment planning in the transport and logistics sector future years | A study is proposed to set out a strategic intervention plan to translate the following objectives of the Land Transport Policy in to a strategic action plan. This would be to:  
  - Ensure the adequacy of transport infrastructure and services required to support the goals of sustainable economic growth, and social development at all times and across all communities.  
  - Ensure optimum utilization of existing resources in terms of transport infrastructure and equipment across all networks, modes and users.  
  - Ensure that a minimum level of access to basic services is provided to all segments of the society.  
  - Ensure that users of transport systems are provided with reasonable choices of modes of transport and access to up to-date information to make informed decisions.  
  - Manage overall vehicle fleet and usage, especially to discourage the number of people commuting in single occupancy vehicles in urban areas by improving public transport and other measures.  
  - Reduce social-exclusion by providing appropriate transport facilities, especially to assist the mobility of the elderly and the differently-abled.  
  - Improve safety and security for different transport systems.  
  - Ensure competitiveness between and among modes and providers while protecting the interests of the Government in providing transport.  
  - Ensure the systematic infusion of capital in to the development of new transport infrastructure through Government and private investment.  
  - Encourage through fiscal and non-fiscal measures, for energy efficient vehicles and use of non-motorized transport where appropriate. | TA Cost would be around USD 1 million. | No provision made |
| 2. Multi Modal Transport Access to BIA at Katunayake | Aviation Policy identifies the inadequate land side connection at BIA as a constraint. This project will ensure that tourist and other visitors will have smooth To (a) study the land-side transport connection improvements required (b) design multi modal land side integration with different modes of transport; (c) develop a Business Model to implement such as a project and (d) construction of same. | Cost of all improvements estimated at USD 20 million | No provision made(?) |
### Short Listing of Priority Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification- Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
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</thead>
<tbody>
<tr>
<td>transit between air side and selection of land modes including connection by train, coach, bus, taxis, park and ride, cars, shuttles etc.</td>
<td></td>
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</tbody>
</table>
## 10.6 Provincial/Regional Transport

<table>
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<tr>
<th>Project</th>
<th>Justification - Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
</table>
| 1. **Southern Province: Multi modal Transport & Logistics Operations System for Hambantota** | Development of Port and Airport at Hambantota, Extension of Southern Highway, Railway Extension to Kataragama are on going transport related infrastructure projects affecting Hambantota. There is a need to study the integration of these different modes of transport an the overall land use development strategies that would affect their future roles. Moreover the other development requirements to ensure the best returns for these investments in terms of supporting transport infrastructure and services such as bus and trucking services as well as railway services and logistics provides, hubs etc. have not been discussed yet.  

*This study will ensure that the transport infrastructure facilities in Hambantota will be adequate for the important inter-modal functions that are anticipated with development of Hambantota as an air-sea hub and a distribution hub for international trade.* | To (a) identify the different infrastructure and services required; (b) identify the required points of inter modalism and inter change; (c) identify the functions of the degree of complementarily required ; (d) design the required functionality and capacity for the future based on potential transport and traffic forecasts and (e) construction of required inter-modal facilities. | Cost of Project estimated at USD 4 million | No provision made |
| 2. **Eastern Province: Development of Aviation for Tourist Promotion** | With livelihoods returning to normalcy in the EP and tourism which was one time a major economic factor also set to return, it would be necessary to develop the air strips in the EP for flights to and from Colombo, BIA and other tourist destinations. This coupled with integrated land transport would provide a much more attractive access to EP when compared to the road or rail connection which takes between 7 to 12 hours.  

*This project would lead to higher visitors to EP and development of tourism an identified core development strategy for the EP.* | To (a) undertake a study of the airports in the EP and feasibility for developing each of them to integrate with tourism development and commercial centres (b) determine the land side integration(c) to design one or two selected airports for development as domestic/regional airports; (d) implement project along with development of infrastructure for access modes and infrastructure. | Cost of project estimated at USD 5 million | No provision made other than possible funds for developing airport infrastructure |
| 3. **Uva Province: Development of Roads for Tourism Promotion.** | Uva is a province that possesses numerous scenic beauty and climate which attracts both local and foreign tourist throughout the year. However poor access to and within the province does not allow the full development of this potential. It is proposed that around 200 km of such roads from both national and provincial | To (a) identify tourist locations and constraints for access including scenic routes and connectivity within province to holiday resorts; (b) prioritize such links requiring development; (c) design such prioritized links | Cost of project estimated at USD 1 million | No allocation made. |
### Chapter: Short Listing of Priority Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification - Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uva Province: Integrated Supply Chain Development Project.</td>
<td>and local authority roads be selected for development as tourist routes in conjunction with a tourism development plan for the province. <strong>This project will supplement the agricultural based economy of Uva with tourism thus giving it another development potential to lift it from being one of the poorest in the country.</strong></td>
<td>for tourism needs including view points and turn outs for vehicles; (d) construct around 200 km of such roads and (e) formulate maintenance program for such facilities with tourist agencies and operators</td>
<td>No allocation made</td>
<td>No allocation made</td>
</tr>
<tr>
<td>Northern Province: Multi modal Transport &amp; Logistics Operations study</td>
<td>Uva is essentially an agricultural province. Its industries are few and transport access is cited as the biggest constraint in either case. Even though some economic trade centres have been set up within the province, they have not been set up as logistics villages taking in to account the different requirements such as loading, unloading, docking, warehousing, packaging, handling, access, availability of competing modes etc. As such its current agricultural based transport services have not improved over centuries. A proposal to set up one or two such fully fledged logistics villages for multiple commodities would be most advantageous. <strong>This project will provide a facility within the province for logistics processing and for value addition services that would increase employment and trade within the province.</strong></td>
<td>To (a) carry out a study of agricultural supply chain in UP; (b) select locations for setting up modern logistics centre with multi modal access; (c) design such location with warehousing, processing areas, value addition areas, loading docks; (d) construction of two such locations</td>
<td>Cost of project estimates at USD 10 million</td>
<td>No allocation made</td>
</tr>
<tr>
<td></td>
<td>Currently a number of transport infrastructure development initiatives are going on in the Northern Province. This however is not in relation to an integrated plan for transport which should take in to account the role of the two ports, airport, railway and road network. It also needs to be integrated with the new economic plan and urban development plan including the setting up of Mankulam as the administrative capital and development of Jaffna as a commercial and tourist centre. <strong>The project will provide a plan for developing the different transport systems and infrastructure to meet the new economic development strategy in the NP.</strong></td>
<td>To (a) undertake a Capacity Assessment study; (b) design missing infrastructure for inter-modal integration and (c) construct selected infrastructure facilities required as priority and (d) provide institutional capacity building for transport agencies in NP including HR development</td>
<td>Cost of project estimates at USD 3 million</td>
<td>No allocation made</td>
</tr>
</tbody>
</table>

10.7 Other Modes of Transport

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification- Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feasibility Study for Indo-Sri Lanka land Bridge</td>
<td>As Sri Lanka is an island and as there is no land bridge across the Palk Strait, there are no international intra-regional roads or railways at present. One of the railway lines from Colombo, north bound to Talaimannar Pier on the north-western coast of Sri Lanka is opposite Rameshwaran, located across the Palk Strait in Tamil Nadu State of India. On both sides the railway lines have been designated as links in the Trans-Asian Railway (TAR). If a land bridge were to be constructed it would connect to the Trans Asian Railway (TAR) via the Indian Railway network which is also now being converted to broad gauge. Moreover the plan to construct, 400 km of high mobility roads required to support the island’s growing economy could become a part of an Asian Highway system in the future.</td>
<td>To (a) undertake a feasibility study for the purpose of a land bridge which will include technical, oceanographic, environmental, transport, trade and tourism, legal and procedural, financial and economic consideration of the project. The approval of the respective Governments would have to follow subsequent to establishing the feasibility.</td>
<td>Cost of TA for Feasibility Study USD 1 million</td>
<td>No provision made</td>
</tr>
</tbody>
</table>

SAARC Transport Ministers Meeting 2008 SAARC Multi modal Transport Study (2007), 3rd SAARC Intergovernmental Group (2009), 2nd SAARC Transport Ministers Meeting (2009) have all agreed to a feasibility study, Sri Lanka Land Transport Policy also considers this initiative.

This study will enable the timely consideration of the tasks involved in this mega scale project that will open up direct trade links with India and also promote tourism.
## 10.8 Transport in Urban Areas

<table>
<thead>
<tr>
<th>Project</th>
<th>Justification- Policy/Plans</th>
<th>Scope of Works</th>
<th>Estimated Value</th>
<th>Allocation in Investment Plan 2010-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Colombo MC: Masterplan for Introducing Rapid Transit System</td>
<td>The feasibility study for constructing a metro rail system/BRT system in the City of Colombo and in the sub-urban areas as the main mode of transport is intended to increase the efficiency and productivity thereby improving the environment and public health. (MC 2010) <em>This study will lead to the provision of high quality public transport service in Colombo which will enable reduction of heavy road traffic, carriage of large number of people to city centre and to give a boost to the image of the city as having a modern transit system.</em> To (a) develop a masterplan for introducing rapid transit for Colombo City; (b) identification of design parameters and traces and technology to be used; (c) assess institutional capacity to plan; develop; regulate and monitor a high quality people mover system in Colombo City; (d) develop business model and assist in the joint venture provision for rapid transit infrastructure.</td>
<td>USD 100 million for 28 km BRT system</td>
<td>Allocation under Foreign/private Funding</td>
<td></td>
</tr>
<tr>
<td>2. All Small Towns: Small Towns Transport &amp; Traffic Improvement Program</td>
<td>Many towns such as Moratuwa, Avissawella and Vavuniya evaluated in this report has typical traffic congestion arising from total absence of systematic traffic management system with road space used for a myriad of purposes each conflicting with the other resulting in poor utilisation of road space, poor mobility, access as well as safety. Many town centres also have poor inter modal integration as well. <em>These projects will reduce the economic losses in town centres due to congestion and pollution, improve the functionality and uplift the image of the town centre as well as attract new businesses to develop trade and economic activities.</em> To (a) carry out detailed traffic and transport development plan; (b) design such interventions and(c) implement project; (d) provide intuitional capacity development.</td>
<td>Cost estimated to range between USD 1 million to 5 million per town.</td>
<td>No provision made.</td>
<td></td>
</tr>
</tbody>
</table>
11 RANKING OF SELECTED PROJECTS

In order to prioritize the selected projects in the previous chapter, the details of each project are given in the comparative format in the following sections.

Thereafter a Multi Criterion Analysis (MCA) will be carried out using the information given in each project to give comparative weights for each element included in the MCA. As such the objective is to develop a combined weight by which the above projects could be ranked.
11.1 National Roads Network Development Project

Justification/Background
The National Roads Master Plan (NRMP) has identified rehabilitating 6,500 km during the period 2007-2016. Of this, 2,500 km has been completed to date and the MC 2010 pledges to rehabilitate 4,000 km of national highways and 100 bridges. The RDA is currently updating the NRMP taking in to account the post-conflict economic and development requirements especially in North and East provinces to identify these road links. This will have multiple benefits in promoting trade, tourism and regional development especially in the north and east.

Objectives
To (a) assess roads and links identified for rehabilitation in the updated NRMP for viability; (b) prioritize such roads list based on cost benefit and multi criterion analysis; (c) develop design standard for roads based on importance, number of lanes, functionality, safety, users inclusive of non motorized, parking and public transport users requirements in road design; (d) documentation of procedures and capacity building for safety audit of rehabilitation projects; (e) modification of road maintenance trust fund to include post rehabilitation maintenance funding, (f) strengthen institutional capacity in RDA to ensure compliance of axle loads and protection of clear right of way in such roads after rehabilitation and (g) design as per above specification and construction of an agreed km length of roads from among the feasible and prioritized list.

Institutional Framework
Road Development Authority (RDA). Ministry of Highways

Description of Work
The works involved are: a) Identification of priority road list by considering national level transport need of the area and proposed future developments. b) Carrying out the feasibility studies with conceptual designs covering all aspects of engineering, economic, social and environment concerns to finalize the road list to be included for improvements. c) Land acquisition proceedings if additional ROW is needed for construction. d) Carrying out the detailed designs for geometric, pavement and structural improvements for road and associated drainage system to suitable standards. e) Construction and supervision and project monitoring. f) Capacity building of RDA project director’s offices for maintenance, operations and post monitoring of the project with established project monitoring units (PMUs).

Costs
**Review of Sri Lanka Transport Sector**

### Cost Estimate
Cost of TA is estimated at USD 200,000 (Rs.22 million) and cost of rehabilitation estimated at USD 1 million (Rs 114 million) per km averaged for 2 and 4 lane road mix in both urban and rural settings as well as flat and hill country. Provision of Rs 75 million per km which is the 1/3rd of the cost of balance 4,000 km made under foreign funding sources.

### Duration of Project
Ten Years (2007 – 2016)

### Maintenance/Operating Cost per year
No significant maintenance up to minimum period of 5 years. Approximately Rs 30mn / year after 5 years to life time

### Life of Project (yrs)
15 – 20 years

### Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
<th>Foreign Lending Agencies such as ADB, World Bank (WB), JICA, JBIC, etc as per the past experience in Sri Lanka.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Business Model</td>
<td>Long term public investment that will be recovered by the economic development of improved business and trade between rural and urban centers.</td>
</tr>
<tr>
<td>Generation of Revenue Stream (for O&amp;M)</td>
<td>There is no direct revenue collection. Indirect revenue collection through government allocations on fuel tax and vehicle import taxes.</td>
</tr>
<tr>
<td>Investment Gap</td>
<td>No direct revenue collection method has been proposed to recover from the direct users.</td>
</tr>
</tbody>
</table>

### Benefits
**Description of Benefits**
Reduces congestion and time delays, improved road safety, and provides modernization of transport infrastructure, multiple benefits in promoting trade, tourism and regional development especially in north and east. Better accessibility to rural areas that has been long suffering from the ethnic conflicts in North and Eastern provinces to achieve rapid developments. Improved inter trade between regions.

**Estimated Quantifiable Value of Benefits for Life Time**
The traffic levels will be varying from 100 vehicles to 3500 vehicles a day (ADT) in the national roads in above provincial roads in next few years. There will be an average of 750 vehicles / km of road length running daily on in above roads. The average total benefits are estimated as 12mn Rs/km/year by implementing the project according to the recent feasibility studies. Then the total benefits from the project will be USD 6000 million for the life time of 15 years.

**Non Quantifiable Benefits**
- Financial Viability for PPP 8
- Economic Viability 9
- Regional Development Impacts 10

**Rating as follows:**
- Excellent 10; Very Good 9; Good 8;
- Moderately Positive 7; Marginally
Review of Sri Lanka Transport Sector

**Chapter: Ranking of Selected Projects**

**2010**

Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

- Environmental Impacts 4
- Social Impacts 8
- Equitable (Distribution of Costs & Benefits) 6

**Other Remarks**

Improvements for other roads such as provincial roads are also invested in parallel to the above national road projects under several financial packages.
### 11.2 Junctions Improvement Project

#### Justification/Background

RDA has identified nearly 100 junctions that have exceeded their traffic handling capacity and/or have become accident prone black spots. This project subscribes to safety initiatives in MC 2005 and junction improvements in MC 2010 and Safety initiatives emphasized in Land Transport policy.

This will reduce heavy external transport network losses and in creating better urban centres that will promote trade and create commercial hubs.

#### Objectives

To (a) rank and prioritize these junctions on the national road network by level of service and safety record and perform a cost benefit analysis for improvement; (b) specifically develop design guidelines for junction improvement that will include requirements of vulnerable road users; (c) facilitate local research and development of cost effective improvements of local origin and (d) undertake design and improvements of an agreed number of such junctions that found to be feasible and are in the prioritized list;

#### Institutional Framework

Road Development Authority (RDA). Ministry of Highways

#### Description of Work

The works involved are: a) Identification of priority junction list based on the traffic levels and as the importance of the node. b) Carrying out the feasibility studies with conceptual designs covering all aspects of engineering, economic, social and environment concerns suggesting all possible alternative cost effective solutions for implementation. c) Land acquisition proceedings if additional ROW is needed for capacity improvements of the intersections. d) Carry out the detailed designs to suitable standards. e) Construction and supervision and project monitoring. f) Establishment of a project monitoring units (PMUs) for coordinating and post evaluation of all projects.

#### Costs

<table>
<thead>
<tr>
<th>Costs</th>
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</thead>
<tbody>
<tr>
<td>Cost Estimate</td>
<td>Cost of TA is estimated at USD 100,000 and cost of rehabilitation estimated at USD 250,000 per junction averaged for 2 and 4 lane road mix and different intersection control types. Therefore, the total allocation is USD 25.1milion.</td>
</tr>
<tr>
<td>Duration of Project</td>
<td>Ten Years (2005 – 2015)</td>
</tr>
<tr>
<td>Maintenance/Operating Cost per year</td>
<td>Rs 25 mn</td>
</tr>
<tr>
<td>Life of Project (yrs)</td>
<td>15 -20 years</td>
</tr>
</tbody>
</table>
## Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
<th>Lending Agency, Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Business Model</td>
<td>Long term public investment that will be recovered by travel time savings (VOT), vehicle operating cost savings (VOC), and reduced medical expenditure by reduced emissions and accidents</td>
</tr>
<tr>
<td>Generation of Revenue Stream (for O&amp;M)</td>
<td>There is no direct revenue collection. Indirect revenue collection through government allocations on fuel tax and vehicle import taxes.</td>
</tr>
<tr>
<td>Investment Gap</td>
<td>No direct revenue collection method has been proposed to recover from the direct users.</td>
</tr>
</tbody>
</table>

## Benefits

<table>
<thead>
<tr>
<th>Description of Benefits</th>
<th>Improved urban settings, travel time savings of passengers, vehicle operating cost savings for all motorized users, reduced emissions by increased average speeds of vehicle stream, reduced property damage by reduced accidents, reduced medical expenditure by reduced emissions with increased speeds and improved road safety, public convenience by reduced traffic congestion, are the main benefits of the project.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Quantifiable Value of Benefits for Life Time</td>
<td>Average benefits from introduction of cost effective solutions such as signalization, parking control, bus transport management etc are averaged for a 2 and 4 lane mix intersections becomes around 450million rupees for average of 15 year period. These benefits are highly varied from intersection to the other based on the traffic levels at those locations.</td>
</tr>
</tbody>
</table>

### Non Quantifiable Benefits

**Rating as follows:**

- Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

- Financial Viability for PPP 8
- Economic Viability 8
- Regional Development Impacts 6
- Environmental Impacts 5
- Social Impacts 7
- Equitable (Distribution of Costs & Benefits) 6

## Other Remarks

Flyovers have been introduced at few locations for the same purpose but has been difficult to justify the cost with large capital investments required for implementations.
11.3 Development of Provincial Roads

Justification/Background

Some 1,200 km of provincial roads are to be developed. Studies have identified provincial institutional capacity building as lagging behind to manage major rehabilitation exercise. While there have been several programs to rehabilitate provincial roads, some provinces have been neglected. Special attention is pledged to develop roads in the up-country and the north according to MC 2010

This project will assist regional development through better linkages to hinterland production areas in provinces also open up new areas for tourism, including NP.

Objectives

To (a) study and develop an integrated provincial roads development program for the three most under provided provinces namely, WP, NWP and NP; (b) undertake a multi criterion analysis to determine the most cost effective rehabilitations; (c) carry out design and construction of an agreed length of such roads that are found to be feasible and in the prioritized order; (d) strengthen institutional capacity of the respective provincial road authorities in terms of human resource training, formulation of procedures in contract management, quality control/assurance and equipment; (e) assist capacity development of SME in road construction at provincial level.

Institutional Framework

Provincial Road Development Authority (PRDA). Ministry of Highways of Provincial Councils
**Description of Work**

The works involved are: a) Identification of priority road list with the consultation of the all related parties of provincial councils and the public in the area those are benefited from the project. b) Carrying out the feasibility studies with conceptual designs covering all aspects of engineering, economic, social and environment concerns to finalize the road list to be included for improvements. c) Land acquisition proceedings if additional ROW is needed for construction. d) Carry out the detailed designs for geometric, pavement and structural improvements for road and associated drainage system to suitable standards. e) Construction and supervision and project monitoring. f) Capacity building of PRDA for maintenance, operations and post monitoring of the project with established project monitoring.

<table>
<thead>
<tr>
<th>Costs</th>
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<tbody>
<tr>
<td><strong>Cost Estimate</strong></td>
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<tr>
<td><strong>Duration of Project</strong></td>
</tr>
<tr>
<td><strong>Maintenance/Operating Cost per year</strong></td>
</tr>
<tr>
<td><strong>Life of Project (yrs)</strong></td>
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<tr>
<th>Investment</th>
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<tbody>
<tr>
<td><strong>Potential Investment Sources</strong></td>
</tr>
<tr>
<td><strong>Suggested Business Model</strong></td>
</tr>
<tr>
<td><strong>Generation of Revenue Stream (for O&amp;M)</strong></td>
</tr>
</tbody>
</table>
## Investment Gap

No direct revenue collection method has been proposed to recover from the direct users.

## Benefits

### Description of Benefits

Improved mobility by reducing travel time, improved road safety, and provides modernization of transport infrastructure, multiple benefits in promoting trade, tourism and regional development especially in the north. Better accessibility to rural areas that has been long suffering from the ethnic conflicts in North province to achieve rapid developments. Social and economic development of rural communities as a result of regional developments.

### Estimated Quantifiable Value of Benefits for Life Time

The traffic levels vary between 100 vehicles to 4500 vehicles a day (ADT) in above provincial roads. There is an average of 955 vehicle kms / km of road length running daily on provincial roads in above provinces. The average total benefits are estimated as 12mn to 15mn Rs/km/year by implementing the project. Then the total benefits from the project will be USD 1800 – 2300 million for the life time of 15 years.

### Non Quantifiable Benefits

- Financial Viability for PPP

### Rating as follows:

- Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

- Economic Viability

- Regional Development Impacts

- Environmental Impacts

- Social Impacts

- Equitable (Distribution of Costs & Benefits)

### Other Remarks

National Road improvements are also being carried out parallel to these projects so that the net benefits are more positive.
11.4 Connectivity to Remote Villages

Justification/Background
MC 2005 pledges to provide connectivity to the 6 percent of villages that have poor access. It is thus estimated that there are around 1,500 such villages.

This project will address how inaccessibility related causes of rural poverty could be solved.

Objectives
To (a) assess the reasons for inaccessibility of poverty stricken remote villages already identified; (b) design and construction of selection of such infrastructure projects in terms of sections of roads, culverts and bridges to that are found to be feasible and ranked in a prioritization; (c) formulation of appropriate design standard for gravel, metal and concrete rural roads and for bridges; (d) formulation of community participation methods for construction and maintenance of such facilities; (e) formulation of the provision of transport services to serve needs of such villages.

Institutional Framework
Pradeshiya Sabha, Divisional Secretariat Divisions (DSDs), Gramaseva Niladhari Divisions (GNDs)

Description of Work
The works involved are: a) Identification of villages and rank them based on indicators such as population densities, remoteness, and poverty index etc. b) Carryout the preliminary investigations to find out the main reasons for poor accessibility to the village. c) Carryout suitable designs to suit to the situation by utilization of local construction materials. d) Establish project monitory units (PMUs) by representing all parties including the representatives from the village. e) Carryout the construction works by maximum utilization of local labor and material resources so that the village communities can be benefited from the project. f) Establish village community units for assisting PMUs for maintenance and post operational work.

Costs
### Cost Estimate

Cost of TA is estimated at USD 200,000 and estimated cost of USD 10,000 for improvement to serve every village. Hence the total allocations are US$ 1.5 billion for 1500 villages.

No specific allocation made other than under Maga Neguma program.

### Duration of Project

3 to 5 years

### Maintenance/Operating Cost per year

Rs 15 mn for entire length

### Life of Project (yrs)

5 - 10 years

### Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
<th>Lending Agencies such as ADB, World Bank (WB). Government and commercial banks for developments.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Business Model</td>
<td>Long term public investment that will be recovered through the local authorities by increased taxation for land utilization and the business in the area.</td>
</tr>
<tr>
<td>Generation of Revenue Stream (for O&amp;M)</td>
<td>Through tax collection by the local authorities</td>
</tr>
</tbody>
</table>

### Investment Gap

Direct revenue collection through the land use taxation by the local authorities. The investment gap will be depending on the present revenue collection and the possibility of the level of increments after the project is implemented. Also Government budgetary allocations for rural development can be used to fill the investment gap (ex: Maganeguma Programme)

### Benefits
Description of Benefits

Regional development through increased accessibility provides modernization of transport infrastructure, multiple benefits in promoting trade and agricultural activities. Social and economic development of rural communities as a result of regional developments. Better social relationship between people in the community by participation of community work.

Estimated Quantifiable Value of Benefits for Life Time

Depends on the population of the beneficiaries and the regional development index.

Non Quantifiable Benefits

- Financial Viability for PPP 5
- Economic Viability 8
- Regional Development Impacts 10
- Environmental Impacts 6
- Social Impacts 9
- Equitable (Distribution of Costs & Benefits) 8

Rating as follows:

Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

Other Remarks

The project is important in the point of view of equity of the social benefits for every parts of the country by the government allocations.
11.5 Redesign of Urban Roads for Improved Access & Mobility

**Justification/Background**
Transport Policy encourages space efficient and environmentally appropriate modes of transport in urban areas.

This project will introduce modernization to urban transport, significantly reduce pollution and congestion and improve access to urban centres that in turn will promote the anticipated hubs identified as economic thrust area in MC 2010.

**Objectives**
To (a) identify urban roads that have poor level of service and accidents; (b) select a pre agreed number of worst cases to redesign for separate infrastructure facilities for high quality public transport, pedestrians and non-motorized vehicles; (c) construction of selected infrastructure along with improved construction methods that minimize impact to high trafficked urban roads.

**Institutional Framework**
Municipal Councils, Town Councils, Urban Councils, Ministry of Local Governments, Urban Development Authority, Road Development Authority, Provincial Transport Authorities, National Transport Commission.

**Description of Work**
The works involved are: a) Identification of priority urban centers those appearing to suffer from poor transport capacities of all transport modes and respective infrastructure. b) Carryout studies for identification of the basic transport related issues in each urban center. c) Identification of the alternative solutions with state of art technologies available and which are suitable to the conditions. d) Selection of the best solution by means of economic analysis and considering the urban settings and the social aspects of the affected parties. e) Implementation of the proposed best solutions by considering the mitigate measures to avoid the negative impacts to the urban users during the construction. f) Implementation of post monitoring and evaluation for the effectiveness of the project for future studies.

**Costs**
### Cost Estimate
Cost of improvements estimated at USD 2 million per km on average for 2 and 4 lanes road mix. For a network of say 100 km, total cost USD 200 million. No provision made.

### Duration of Project
Ten Years

### Maintenance/Operating Cost per year
Rs 0.8 mn /km/ year after 5 years.

### Life of Project (yrs)
15 – 20 years

### Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
<th>Part funding by lending Agencies such as ADB, World Bank (WB) with part allocation from the local government authorities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Business Model</td>
<td>Long term public investment that could be recovered through the local authorities by increased taxation for land utilization and the business in the area.</td>
</tr>
<tr>
<td>Generation of Revenue Stream (for O&amp;M)</td>
<td>Through tax collection by the local authorities and the central Government allocations through road development agencies.</td>
</tr>
</tbody>
</table>

### Investment Gap
Direct revenue collection through the land use taxation by the local authorities. Any investment gap will be depending on the business activity levels of the urban center to the other.

### Benefits

| Description of Benefits | Reduces congestion and time delays, reduced vehicle operating cost, improved road safety, reduced emissions and provides modernization of urban and transport infrastructure, social benefits by improved public transport facilities, improved pedestrian and non motorized transport facilities and their safety, improved urban aesthetics and highway landscaping. |

Estimated Quantifiable Value of Benefits for Life Time

Average savings by means of all quantifiable benefits can be estimated as Rs 8-12 / vehicle km for an improved speed of 5 – 6km/h. Hence the total benefits for a 4 lane urban road (1km section) of urban area with 50,000 ADT will be around 2,190 – 3,200 million rupees.

Non Quantifiable Benefits

Rating as follows:

Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

- Financial Viability for PPP 9
- Economic Viability 9
- Regional Development Impacts 6
- Environmental Impacts 8
- Social Impacts 8
- Equitable (Distribution of Costs & Benefits) 7

Other Remarks

Cost effective solutions can be implemented for better net benefits from the project is essential to make the project financially viable.
11.6 Electrification of Railways in Colombo Metropolitan Region

Justification/Background
This project has been identified in the MC, 2010 and is part of the strategic plan of the SLR to improve the service quality of rail transport in the Western province.

Objectives
To (a) identify the sections of track that are technically, operationally and financially feasible for implementation and (b) to arrive at the technical design specifications for the project.

Institutional Framework
Sri Lanka Railways.

Description of Work
The works involved are: a) Identification of railway trip generating and trip attracting areas. b) Carryout studies for identification of the railway origin-destination matrices, and other travel parameters c) Identification of the electrification technologies and the requirements for an efficient service, d) Selection of the best solution by means of economic analysis and other parameters of safety and environmental concerns. e) Implementation of the proposed best solutions by considering the mitigate measures to avoid the negative impacts to the urban users during the construction. f) Implementation of post monitoring and evaluation for the effectiveness of the project for future studies.

Costs

<table>
<thead>
<tr>
<th>Cost Estimate</th>
<th>Cost of study estimated at USD 1 million. Construction of base network USD 50 million.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of Project</td>
<td>Three Years</td>
</tr>
<tr>
<td>Maintenance/Operating Cost per year</td>
<td>USD 0.8 mn in first year of service increasing to USD 4.2 after 8 years.</td>
</tr>
<tr>
<td>Life of Project (yrs)</td>
<td>20-30 years</td>
</tr>
</tbody>
</table>

Investment

| Potential Investment Sources | Funding by lending Agencies such as ADB, World Bank (WB). |

Potential Investment Sources
Funding by lending Agencies such as ADB, World Bank (WB).
**Suggested Business Model**

Long term public investment that could be partly recovered through the SLR through station development and higher patronage and lower operating costs.

**Generation of Revenue Stream**

Station leasing and fare box revenues.

**Investment Gap**

Since most of the economic benefits would be in terms of reduction of traffic congestion, it would be necessary for the government to bear part of the investment and for the railway to bear part of it which can be recovered through improved operations.

### Benefits

**Description of Benefits**

Reduces congestion and time delays, reduced vehicle operating cost, improved road safety, reduced emissions and provides modernization of urban and transport infrastructure, social benefits by improved public transport facilities.

**Estimated Quantifiable Value of Benefits for Life Time**

The IRR for this project has been estimated at 5.1%\(^{104}\).

**Non Quantifiable Benefits**

- Financial Viability for PPP
- Economic Viability
- Regional Development Impacts
- Environmental Impacts
- Social Impacts
- Equitable (Distribution of Costs & Benefits)

**Rating as follows:**

- Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

**Other Remarks**

This has heavy social benefits.

---

\(^{104}\) Institution of Engineers, Sri Lanka, Railway Electrification, August 2008.
### 11.7 Project to Expand Railway Freight Market

**Justification/Background**  
A Strategy to make the railways more profitable also which can be used to significantly reduce external dis-benefits of container transport within the city.

**Objectives**  
To (a) identify new links and existing links (e.g. Sapugaskanda Line) that can be developed for freight transport and development as rail based ICDs in WP; (b) integrate with road based haulage at such points as the interchange points on Outer Circular Highway and Colombo Port and BIA at Katunayake; (c) formulate procedures for improved institutional capacity to market services, provide value added services, improve reliability, (d) procure critical equipment such as flatbeds, loading and unloading equipment; (e) develop processes of managing out sourced operations; and (f) set up specialized marketing arm

**Institutional Framework**  
Sri Lanka Railways, National Transport Commission, Port Authority and Board of Investment

**Description of Work**  
To study the locations for establishing an ICD close to expressway network and railway network, design work and preparation of documents for tender. Construction to follow.

**Costs**

<table>
<thead>
<tr>
<th>Cost Estimate</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquiring lands and construction of 3 depots at a rate of Rs. 326 mn. per each, minimum fleet of rolling stock and equipment for depots estimated at a rate of Rs. 575 mn. per each, Renovation of approximately 10 kms of existing tracks at a cost of Rs. 500 mn. and newly constructing 50 kms length of tracks at a cost of Rs. 10,000 mn. Thereby total cost is aggregated to Rs. 13,200 mn. (USD 115) approximately</td>
<td></td>
</tr>
</tbody>
</table>

**Duration of Project**  
Four Years from Design Stage to completion.
### Review of Sri Lanka Transport Sector

#### Chapter: Ranking of Selected Projects

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maintenance/Operating Cost per year</strong></td>
<td>Rs 400 mn</td>
</tr>
<tr>
<td><strong>Life of Project (yrs)</strong></td>
<td>15 years</td>
</tr>
<tr>
<td><strong>Investment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Potential Investment Sources</strong></td>
<td>Lending Agency, Public Sector</td>
</tr>
<tr>
<td><strong>Suggested Business Model</strong></td>
<td>A JV of Port Authority and Sri Lanka Railways for managing construction and operations of the ICDs.</td>
</tr>
<tr>
<td><strong>Generation of Revenue Stream (for O&amp;M)</strong></td>
<td>Charges for depots facilities and container handling, Charges for transport.</td>
</tr>
</tbody>
</table>

#### Investment Gap

Investment for construction of ICD, laying tracks and rolling stock cost can be recovered by the revenue generated at the operational stage of the ICDs. In addition the excess revenue also covers approximately 3/4th of the total operational and maintenance cost estimated at USD 50mn. for 15 years of design life. Thereby investment gap would be around USD 15 mn.

#### Benefits

**Description of Benefits**

Facilitate smooth movement of containers via city centre to Port without going along congested roadways, ease the traffic congestion within the city, Minimize the road maintenance cost.

**Estimated Quantifiable Value of Benefits for Life Time**

Depending on the handling capacity of ICDs, at least 1/3rd of approximately 3000 moments per day would divert to rail thereby avoiding roadway travel within the city.

**Non Quantifiable Benefits**

- Financial Viability for PPP
- Economic Viability
- Regional Development Impacts
- Environmental Impacts

**Rating as follows:**

- Excellent 10; Very Good 9; Good 8;
- Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally
Review of Sri Lanka Transport Sector

Ranking of Selected Projects

2010

Negative  4; Moderately Negative 3;
Poor  2, Very Poor 1; Extremely Bad 0

- Social Impacts
  5
- Equitable (Distribution of Costs & Benefits)
  7

Other Remarks
Nil
11.8 Modernizing of Bus Terminals in Urban Area

Justification/Background

Buses currently transport the largest share of passengers to urban centers. But they do not have suitable terminals especially centres within the city with good access such as from trains, pedestrian walkways, park and ride facilities etc. The ones that exist within suburban areas are of extremely poor quality and unable to attract higher income passengers. The need to improve terminals has been highlighted in Land Transport Policy.

Objectives

To (a) undertake a needs assessment of bus terminals country wide; (b) select locations where viable multi modal linkages can be effected; (c) develop a business plan and management model for such terminals; (d) design facility; (e) assist in meeting construction cost as suitable joint venture where feasible and (f) provide training; equipment and develop processes for regulatory interventions by respective transport authorities.

Institutional Framework

National Transport Commission, Passenger Transport Authorities, Private Sector Investors

Description of Work

A comprehensive study needs to be carried out to re-organize the existing bus route network and thereby to define the best suited location for the terminals. Under this study especial concerns need to be given to the travel desires of passenger which was considerably changed over the last few years due to the regional development of certain areas. The ranking of terminals should be decided based on the importance of their locations in terms of inter-regional and intra-regional travel perspectives. The terminals which are having potential to develop as bus-rail integrated terminals (which are having inter-regional travel supportive background) need to be prioritized while regionally important transport centers are also giving especial concern. Once the locations of terminals and required interventions are identified, they are directed to renovate or construct newly.

Costs
### Cost Estimate

Construction of 5 number of new multimodal terminals with 1500 sqm @ a rate of 100,000 per sqm and, renovate 20 numbers of existing terminals with 400sqm @ a rate of 40,000 per sqm. Total estimated cost is about USD 9.3 mn.

### Duration of Project

Five Years from the completion of Terminal Assessment Study

### Maintenance/Operating Cost p.a.

Rs. 25mn.

### Life of Project (yrs)

20 years

### Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
<th>Lending Agency, Private Sector</th>
</tr>
</thead>
</table>

| Suggested Business Model    | A SPV with both State (Provincial or Central) and private sector to manage Multi-Modal Centers. But the 2nd order terminals are to be managed by the respective provincial authorities |

| Revenue Stream (for O&M)   | Multi Modal Terminals- Fees from renting out the space for commercial malls, parking fees. |

### Investment Gap

The cost of construction and maintenance of Multi-Modal Transport Centers can be recovered by renting out the space for commercial malls and parking etc. However the renovation of regionally important terminals does not provide such income generating facilities, there is no mechanism to recover their renovation cost. Thereby Investment Gap is approximately estimated at USD 3 mn.

### Benefits

| Description of Benefits | Increase the quality of public transport by providing improved facilities to passengers and attract high-income traveler to public transport thereby reducing roadway traffic. |

| Estimated Quantifiable Value of Benefits for Life Time | Estimated 51,000 passenger-kms are presently undertaken on public transport and approximately 62% of it is travelling on public buses and rests are by the rail. Around 25,000 buses belonging to private and state sector are presently involving in the public bus transportation industry. |
Non Quantifiable Benefits

Rating as follows:

Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

Financial Viability for PPP 3
Economic Viability 5
Regional Development Impacts 8
Environmental Impacts 8
Social Impacts 9
Equitable (Distribution of Costs & Benefits) 7

Other Remarks
Nil
11.9 Domestic Airports Development Project

**Justification/Background**
Constraint identified in Aviation Policy and is required to implement the Aviation Hub identified in MC 2010

This project will give a boost to development of aviation hub as well as development of tourism and industries in provincial areas.

**Objectives**
To (a) undertake a study to determine the development strategy for the domestic airports in keeping with other planned developments such as tourism, industries, ports, regional development strategies; (b) to identify the existing constraints; (c) undertake feasibility study of such developments; (d) identification of business development plans and financing of such improvements (e) design selected airports for domestic and/or regional travel; (e) construction of such airports and (f) capacity development of Airports Authority of Sri Lanka and the Civil Aviation Authority

**Institutional Framework**
Civil Aviation Authority of Sri Lanka, Sri Lanka Tourist Board and Ministry of Tourism and Ministry of Industries.

**Description of Work**
The works involved shall be: a) Identification of the integrated transport needs in different areas of the country and select most suitable locations for an Aviation Hub. b) Carryout feasibility studies for the viability of the project while identifying the potential social and environment issues due to the project implementations. c) Implement the mitigation of externalities due to the project such as negative effect to the environment and the wild life etc. d) Construction and supervision with the participation of project monitory units (PMUs) for quality control and coordination between agencies. e) Post monitoring and evaluation of the benefits from the project

**Costs**
<table>
<thead>
<tr>
<th><strong>Cost Estimate</strong></th>
<th>Cost of TA USD 300,000 and average cost of development estimated at USD 5 mn per airport</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provision of Rs 2.4 billion made under private and government funding</td>
</tr>
<tr>
<td><strong>Duration of Project</strong></td>
<td>5-10 Years</td>
</tr>
<tr>
<td><strong>Maintenance/Operating Cost per year</strong></td>
<td>Rs 100 mn / Airport</td>
</tr>
<tr>
<td><strong>Life of Project (yrs)</strong></td>
<td>25 Years</td>
</tr>
<tr>
<td><strong>Investment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Potential Investment Sources</strong></td>
<td>Foreign lending Agencies, government and private funding. Finance and built contract from international construction companies from countries such as Korea and China.</td>
</tr>
<tr>
<td><strong>Suggested Business Model</strong></td>
<td>Long term investment that will be recovered by fare collection at operation stages and value added tax collection from related industrial developments in the area.</td>
</tr>
<tr>
<td><strong>Generation of Revenue Stream (for O&amp;M)</strong></td>
<td>Air fare collection. Value added business tax collection from related light industries and BOI industries.</td>
</tr>
<tr>
<td><strong>Investment Gap</strong></td>
<td>Financial capitals can be justified if implemented only for selected feasible components and stage construction thereof after justifying the forecasted benefits with the required infrastructure developments.</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
</tr>
</tbody>
</table>
Review of Sri Lanka Transport Sector

Description of Benefits
Regional development through increased accessibility and modernization of transport infrastructure, multiple benefits in promoting trade, and industrial activities. Employment generations with new industries, foreign investments for industries with reduced labor cost and for production to the export market, Social and economic development of rural communities as a result of regional developments. Improved domestic transport network giving more options for local business entrepreneurs.

Estimated Quantifiable Value of Benefits for Life Time
Shall be calculated based on regional development index for each locations after identifying the exact locations.

Non Quantifiable Benefits
• Financial Viability for PPP 6
• Economic Viability 7
• Regional Development Impacts 10
• Environmental Impacts 3
• Social Impacts 6
• Equitable (Distribution of Costs & Benefits) 7

Rating as follows:
Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

Other Remarks
11.10 Multi Modal Transport & Logistics Study

Justification/Background

Land Transport Policy objectives have not been as yet linked to a development strategy.

Objectives

This study will enable the identification of the optimal transport network required to meet the needs and challenges arising from the development strategy of the Government as set out in MC 2010. It will also identify constraints for investment planning in the transport and logistics sector future years.

Institutional Framework

National Transport Commission.

Description of Work

A study is proposed to set out a strategic intervention plan to translate the following objectives of the Land Transport Policy into a strategic action plan. This would be to:

- Ensure the adequacy of transport infrastructure and services required to support the goals of sustainable economic growth, and social development at all times and across all communities.
- Ensure optimum utilization of existing resources in terms of transport infrastructure and equipment across all networks, modes and users.
- Ensure that a minimum level of access to basic services is provided to all segments of the society.
- Ensure that users of transport systems are provided with reasonable choices of modes of transport and access to up to-date information to make informed decisions.
- Manage overall vehicle fleet and usage, especially to discourage the number of people commuting in single occupancy vehicles in urban areas by improving public transport and other measures.
- Reduce social-exclusion by providing appropriate transport facilities, especially to assist the mobility of the elderly and the differently-abled.
- Improve safety and security for different transport systems.
- Ensure competitiveness between and among modes and providers while protecting the interests of the Government in providing transport.

Costs
**Review of Sri Lanka Transport Sector**

**Cost Estimate**  
USD 1 million for study

**Duration of Project**  
One year

**Maintenance/Operating Cost per year**  
nil

**Life of Project (yrs)**  
nil

### Investment

#### Potential Investment Sources
Grant aid from a lending agency.

#### Suggested Business Model
Not relevant.

#### Generation of Revenue Stream (for O&M)
Not relevant

### Investment Gap
Study

### Benefits

#### Description of Benefits
The study will determine the losses in the supply chain system in Sri Lanka.

#### Estimated Quantifiable Value of Benefits for Life Time
If 1% of the losses in the supply chain system in Sri Lanka can be achieved, it may be estimated at over Rs 1 bn per annum.

#### Non Quantifiable Benefits

**Rating as follows:**
- Excellent 10; Very Good 9; Good 8;
- Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3;
- Poor 2, Very Poor 1; Extremely Bad 0

- Financial Viability for PPP 5
- Economic Viability 10
- Regional Development Impacts 9
- Environmental Impacts 6
- Social Impacts 6
- Equitable (Distribution of Costs & Benefits) 8

### Other Remarks
### 11.11 Multi Modal Transport Access to BIA at Katunayake

**Justification/Background**

Aviation Policy identifies the inadequate land side connection at BIA as a constraint. Transport Policy identifies as an important multi modal point.

**Objectives**

To (a) study the land-side transport connection improvements required (b) design multi modal land side integration with different modes of transport; (c) develop a Business Model to implement such as a project and (d) construction of same.

**Institutional Framework**

Airports Authority of Sri Lanka (AASL), Sri Lanka Railways (SLR), National Transport Commission (NTC) and Sri Lanka Tourist Board.

**Description of Work**

Extension of railway line a length of around 500m and provide trench or tunnel for underground access below arrivals and departure level; ticketing booths, information displays, build around 10 coach and bus loading areas with waiting lounges, taxi queue and loading area build multi-storey parking facility with circulation system inclusive of ticketing gates, gates and taxi waiting area.

**Costs**

<table>
<thead>
<tr>
<th>Cost Estimate</th>
<th>4,400 sq mt surface and multi storey facilities @ Rs 100,000 per sq mt and 2,000 sq mt sub surface station facility @ Rs 200,000 per sq mt; Information systems Rs 60 mn, track and signaling Rs 200 mn total Rs 1,100 mn (USD 100 mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of Project</td>
<td>Two Years from Design Stage to completion.</td>
</tr>
<tr>
<td>Maintenance/Operating Cost per year</td>
<td>Rs 30 mn</td>
</tr>
<tr>
<td>Life of Project (yrs)</td>
<td>20 years</td>
</tr>
</tbody>
</table>

**Investment**

Potential Investment Sources

Joint Venture – AASL, Lending Agency, Private Sector
Review of Sri Lanka Transport Sector

Suggested Business Model
A JV with the Private Sector agency managing the facility on pre agreed terms with an option to increase share holding on improved performances and achievement of targets.

Generation of Revenue Stream (for O&M)
Percentage on ticket sales for rail, bus and taxi passengers plus car parking fees.

Investment Gap
Investment may only be what is required for the railway extension as revenue recovery is possible for other costs. This Investment Gap is estimated at USD 25mn.

Benefits

Description of Benefits
Reduces congestion and time delays, provides modernization of transport infrastructure, enables seamless travel for improved multi modal integration.

Estimated Quantifiable Value of Benefits for Life Time
Reduced time losses for airport users and visitors estimated at around 8 million per annum currently.

Non Quantifiable Benefits

Rating as follows:
Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

- Financial Viability for PPP 9
- Economic Viability 10
- Regional Development Impacts 9
- Environmental Impacts 7
- Social Impacts 4
- Equitable (Distribution of Costs & Benefits) 7

Other Remarks
11.12 Southern Province: Multi modal Transport & Logistics Operations Study

Justification/Background

Development of Port and Airport at Hambantota, Extension of Southern Highway, and Railway Extension to Kataragama are ongoing transport related infrastructure projects. There is a need to study the integration of these different modes of transport and the overall land use development strategies that would affect their future roles. Moreover the other development requirements to ensure the best returns for these investments in terms of supporting transport infrastructure and services such as bus and trucking services as well as railway services and logistics provides, hubs etc have not been discussed yet.

This study will ensure that the transport infrastructure facilities in Hambantota will be adequate for the important inter-modal functions that are anticipated with development of Hambantota as an air-sea hub and a distribution hub for international trade.

Objectives

To (a) identify the different infrastructure and services required; (b) identify the required points of inter modalism and inter change; (c) identify the functions of the degree of complementarily required; (d) design the required functionality and capacity for the future based on potential transport and traffic forecasts and (e) construction of required inter-modal facilities.

Institutional Framework

Sri Lanka Port Authority (SLPA), Civil Aviation Authority of Sri Lanka, Board of Investment (BOI), Sri Lanka Railways (SLR), Road Development Authority (RDA), Provincial RDA, Urban Development Authority (UDA), Sri Lanka Tourist Board, Dept of Wild Life Conservation,
### Description of Work

The works involved shall be: a) Identification of multi model transport needs for the proposed developments at Hambantota. b) Carrying out the feasibility studies to identify the best alternatives that will be suit to future developments in the area after identification of all potential future land use development in the area. c) Suggest and carry out stage wise construction and implementation that will suit the present budgetary constraints and economic status (activities) of the country until the traffic and transport demand increases in conjunctions with future land use developments. c) Design and implement after consultation with related stakeholders; d) Discuss with affected parties to minimize the negative impacts from the projects.

<table>
<thead>
<tr>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost Estimate</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Duration of Project</strong></td>
</tr>
<tr>
<td><strong>Maintenance/Operating Cost per year</strong></td>
</tr>
<tr>
<td><strong>Life of Project (yrs)</strong></td>
</tr>
<tr>
<td><strong>Investment</strong></td>
</tr>
<tr>
<td><strong>Potential Investment Sources</strong></td>
</tr>
<tr>
<td><strong>Suggested Business Model</strong></td>
</tr>
<tr>
<td><strong>Generation of Revenue Stream (for O&amp;M)</strong></td>
</tr>
</tbody>
</table>
## Investment Gap

The investment gap may be eliminated if the stage implementations is followed.

## Benefits

<table>
<thead>
<tr>
<th>Description of Benefits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved transport facilities that will link all the land use and the type of different users to suit to the activity system in the area in an efficient way. Very good supporting infrastructure for rapid regional development with new activity supply in the area. User comfort, convenience and improved productivity through time savings for all types of transport needs.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Quantifiable Value of Benefits for Life Time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shall be calculated based on regional development index and the engaged population forecast for the future developments.</td>
<td></td>
</tr>
</tbody>
</table>

### Non Quantifiable Benefits

- Financial Viability for PPP
- Economic Viability
- Regional Development Impacts
- Environmental Impacts
- Social Impacts
- Equitable (Distribution of Costs & Benefits)

### Rating as follows:

- Excellent 10; Very Good 9; Good 8;
- Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3;
- Poor 2, Very Poor 1; Extremely Bad 0

<table>
<thead>
<tr>
<th>Other Remarks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>It is important to have adequate transport users by the other activity development in the area at a high density level to make the system economically viable</td>
<td></td>
</tr>
</tbody>
</table>
11.13 Eastern Province: Development of Aviation for Tourist Promotion

Justification/Background
With livelihoods returning to normalcy in the EP and tourism which was one time a major economic factor also set to return, it would be necessary to develop the air strips in the EP for flights to and from Colombo, BIA and other tourist destinations. This coupled with integrated land transport would provide a much more attractive access to EP when compared to the road or rail connection which takes between 7 to 12 hours.

This project would lead to higher visitors to EP and development of tourism an identified core development strategy for the EP.

Objectives
To (a) undertake a study of the airports in the EP and feasibility for developing each of them to integrate with tourism development and commercial centres (b) determine the land side integration; (c) to design one or two selected airports for development as domestic/regional airports; (d) implement project along with development of infrastructure for access modes and infrastructure.

Institutional Framework
Civil Aviation Authority of Sri Lanka, Sri Lanka Tourist Board and ministry of Tourism,

Description of Work
The works involved shall be: a) Identification of the prospective locations for airport development integrated with tourist destinations in EP. b) Carrying out feasibility studies to identify the level of economic and financial viability of the project. c) Implementation of tourism promotion programs to integrate the transport and tourism. d) Construction and operations. e) Monitoring and evaluation of the project outcomes.

Costs
Cost Estimate
Cost of project estimated at USD 5 million. No provision made other than possible funds for developing airport infrastructure.

Duration of Project
3 – 5 Years
<table>
<thead>
<tr>
<th>Maintenance/Operating Cost per year</th>
<th>Rs 25 mn / Air port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life of Project (yrs)</td>
<td>25 Years</td>
</tr>
</tbody>
</table>

### Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
<th>Foreign lending agencies, government (Tourist Board) and private partnership. Finance and built contract from international construction companies from countries such as Korea and China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Business Model</td>
<td>Long term investment that will be recovered by fare collection at operation stages</td>
</tr>
<tr>
<td>Generation of Revenue Stream (for O&amp;M)</td>
<td>Air fare collection especially by domestic tourist travels.</td>
</tr>
</tbody>
</table>

### Benefits

<table>
<thead>
<tr>
<th>Description of Benefits</th>
<th>Regional development through increased accessibility and modernization of transport infrastructure, multiple benefits in promoting trade with improved tourist activities in the region. Employment generations related to the tourist industry, Social and economic development of rural communities as a result of regional developments. Can be used for easy access at emergencies such as Tsunami and other disaster managements.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Quantifiable Value of Benefits for Life Time</td>
<td>Shall be calculated based on passengers travel time savings comparison with ground (Rail and Road) transportation.</td>
</tr>
<tr>
<td>Non Quantifiable Benefits</td>
<td>• Financial Viability for PPP</td>
</tr>
<tr>
<td>Rating as follows:</td>
<td>• Economic Viability</td>
</tr>
<tr>
<td>Excellent 10; Very Good 9; Good 8;</td>
<td>• Regional Development Impacts</td>
</tr>
<tr>
<td>Rating as follows:</td>
<td>7</td>
</tr>
<tr>
<td>Rating as follows:</td>
<td>7</td>
</tr>
<tr>
<td>Rating as follows:</td>
<td>9</td>
</tr>
</tbody>
</table>
**Review of Sri Lanka Transport Sector**

*Moderately Positive 7; Marginally Positive 6; No Impact 5; Marginally Negative 4; Moderately Negative 3; Poor 2; Very Poor 1; Extremely Bad 0*

- Environmental Impacts 5
- Social Impacts 8
- Equitable (Distribution of Costs & Benefits) 8

**Other Remarks**
11.14 Uva Province: Development of Roads for Tourism Promotion.

**Justification/Background**

Uva is a province that possesses numerous scenic beauty and climate which attracts both local and foreign tourist throughout the year. However poor access to and within the province does not allow the full development of this potential. It is proposed that around 200 km of such roads from both national and provincial and local authority roads be selected for development as tourist routes in conjunction with a tourism development plan for the province.

This project will supplement the agricultural based economy of Uva with tourism thus giving it another development potential to lift it from being one of the poorest in the country.

**Objectives**

To (a) identify tourist locations and constraints for access including scenic routes and connectivity within province to holiday resorts; (b) prioritize such links requiring development; (c) design such prioritized links for tourism needs including view points and turn outs for vehicles; (d) construct around 200 km of such roads and (e) formulate maintenance program for such facilities with tourist agencies and operators

**Institutional Framework**

Road Development Authority (RDA). Provincial Road Development Authority, Local Government, Sri Lanka Tourist Board.

**Description of Work**

The works involved are: a) Identification of priority road list by considering scenic beauty and tourist destination in the province. b) Carrying out the conceptual designs. c) Land acquisition proceedings if need additional ROW for construction. d) Carry detailed designs for structural improvements for road and associated drainage system to suitable standards. e) Construction, and supervision and project monitoring. f) Capacity building of tourist agencies and operators during construction and operations.

**Costs**
| Cost Estimate | The cost of construction of road kilometer will be varied from Rs 15mn to Rs 60mn. Therefore, the total cost of construction will be US$ 65 million. No allocation made. |
| Duration of Project | 2 – 3 Years |
| Maintenance/Operating Cost per year | No significant maintenance up to minimum period of 5 years. Approximately Rs 7.5mn / year after 5 years to life time |
| Life of Project (yrs) | 15 years |
| Investment | |
| Potential Investment Sources | Foreign lending agencies, government (Tourist Board) and private partnership. Finance and built contract from international construction companies from countries such as Korea and China |
| Suggested Business Model | Long term investment that will be recovered by improved revenue at service sector related to tourist industry. |
| Generation of Revenue Stream (for O&M) | There is no direct revenue collection. Indirect revenue collection through government allocations on fuel tax and vehicle import taxes. |
| Investment Gap | Since the roads for developments are selected based on the tourist attraction in the area, it is assumed that the 50% of the cost can be recovered by foreign tourist attractions. Hence the investment gap will be around US$ 32 million. |
| Benefits | |
| Description of Benefits | Better accessibility to tourist destinations. Increased attraction of both local and foreign tourists and hence large contributions to the economic development in the province. Income generations to individuals by supplying goods and services. Development of agricultural products due to improved transportation at reduced costs. |
Estimated Quantifiable Value of Benefits for Life Time

Non Quantifiable Benefits

Rating as follows:
Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact 5; Marginally Negative 4; Moderately Negative 3; Poor 2; Very Poor 1; Extremely Bad 0

• Financial Viability for PPP 8
• Economic Viability 8
• Regional Development Impacts 8
• Environmental Impacts 5
• Social Impacts 7
• Equitable (Distribution of Costs & Benefits) 4

Other Remarks
11.15 Uva Province: Integrated Supply Chain Development Project

**Justification/Background**

Uva is essentially an agricultural province. Its industries are few and transport access is cited as the biggest constraint in either case. Even though some economic trade centres have been set up within the province, they have not been set up as logistics villages taking into account the different requirements such as loading, unloading, docking, warehousing, packaging, handling, access, availability of competing modes etc. As such its current agricultural based transport services have not improved over centuries. A proposal to set up one or two such fully fledged logistics villages for multiple commodities would be most advantageous.

**Objectives**

This project will provide a facility within the province for logistics processing and for value addition services that would increase employment and trade within the province.

**Institutional Framework**

Uva Provincial Council, Ministry of Agriculture, Ministry of Transport.

**Description of Work**

To (a) carry out a study of agricultural supply chain in UP; (b) select locations for setting up modern logistics centre with multi-modal access; (c) design such location with warehousing, processing areas, value addition areas, loading docks; (d) construction of two such locations.

**Costs**

**Cost Estimate**

The cost of construction of a single location is estimated at USD 2 million. Thus the setting up of a network of 5 such locations will be US$ 10 million.

No allocation made.

**Duration of Project**

2 – 3 Years

**Maintenance/Operating Cost per year**

No significant maintenance up to minimum period of 5 years. Approximately Rs 10 mn/year after 5 years to life time.

**Life of Project (yrs)**

15 years
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**Chapter: Ranking of Selected Projects**

<table>
<thead>
<tr>
<th><strong>Investment</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potential Investment Sources</strong></td>
<td>Joint Venture possible.</td>
</tr>
<tr>
<td><strong>Suggested Business Model</strong></td>
<td>Part of the investment could be recovered by handling fees. Part of the benefit would be passed on to society. Hence some degree of government funding is justified.</td>
</tr>
<tr>
<td><strong>Generation of Revenue Stream (for O&amp;M)</strong></td>
<td>Revenue from user charges of the facility.</td>
</tr>
<tr>
<td><strong>Investment Gap</strong></td>
<td>If it is assumed that 50% of the investment could be recovered through user charger fees, then Rs 500 million may need to be raised.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Benefits</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of Benefits</strong></td>
<td>Less damage to goods, through improved handling. Packing, storing and transport using better equipment, buildings and vehicles. Also better distribution to consumption centers in order</td>
</tr>
<tr>
<td><strong>Estimated Quantifiable Value of Benefits for Life Time</strong></td>
<td>Rs 50 million a year for 15 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Non Quantifiable Benefits</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rating as follows:</strong></td>
<td></td>
</tr>
<tr>
<td>Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0</td>
<td></td>
</tr>
<tr>
<td><strong>Financial Viability for PPP</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Economic Viability</strong></td>
<td>8</td>
</tr>
<tr>
<td><strong>Regional Development Impacts</strong></td>
<td>9</td>
</tr>
<tr>
<td><strong>Environmental Impacts</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Social Impacts</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Equitable (Distribution of Costs &amp; Benefits)</strong></td>
<td>4</td>
</tr>
</tbody>
</table>

| **Other Remarks** |                                                    |
11.16 Northern Province: Multi modal Transport & Logistics Operation study

**Justification/Background**
Currently a number of transport infrastructure development initiatives are going on in the Northern Province. This however is not in relation to an integrated plan for transport which should take in to account the role of the two ports, airport, railway and road network. It also needs to be integrated with the new economic plan and urban development plan including the setting up of Mankulam as the administrative capital and development of Jaffna as a commercial and tourist centre.

**Objectives**
The project will provide a plan for developing the different transport systems and infrastructure to meet the new economic development strategy in the NP.

**Institutional Framework**
Urban Development Authority, National Transport Commission.

**Description of Work**
To (a) undertake a Capacity Assessment study; (b) design missing infrastructure for inter-modal integration and (c) construct selected infrastructure facilities required as priority and (d) provide institutional capacity building for transport agencies in NP including HR development ..

**Costs**

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Estimate</td>
<td>Cost of Study estimated at USD 500,000</td>
</tr>
<tr>
<td></td>
<td>No allocation made.</td>
</tr>
<tr>
<td>Duration of Project</td>
<td>1 year</td>
</tr>
<tr>
<td>Maintenance/Operating Cost per year</td>
<td>Nil</td>
</tr>
<tr>
<td>Life of Project (yrs)</td>
<td>Nil</td>
</tr>
</tbody>
</table>

**Investment**
Potential Investment Sources
Grant from lending agencies.
Suggested Business Model
Not relevant.

Generation of Revenue Stream (for O&M)
Not relevant.

Investment Gap
USD 500,000.

Benefits

Description of Benefits
Better integration of transport infrastructure and establishment of improved integration of services.

Estimated Quantifiable Value of Benefits for Life Time

Non Quantifiable Benefits
- Financial Viability for PPP 2
- Economic Viability 8
- Regional Development Impacts 8
- Environmental Impacts 5
- Social Impacts 4
- Equitable (Distribution of Costs & Benefits) 6

Rating as follows:
Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

Other Remarks
11.17 Feasibility Study for Indo-Sri Lanka Land Bridge

Justification/Background

As Sri Lanka is an island and as there is no land bridge across the Palk Strait, there are no international intra-regional roads or railways at present. One of the railway lines from Colombo, north bound to Talaimannar Pier on the north-western coast of Sri Lanka is opposite Rameshwaran, located across the Palk Strait in Tamil Nadu State of India. On both sides the railway lines have been designated as links in the Trans-Asian Railway (TAR). If a land bridge were to be constructed it would connect to the Trans Asian Railway (TAR) via the Indian Railway network which is also now being converted to broad gauge. Moreover the plan to construct, 400 km of high mobility roads required to support the island’s growing economy could become a part of an Asian Highway system in the future.

SAARC Transport Ministers Meeting 2008 SAARC Multi modal Transport Study (2007), 3rd SAARC Inter Governmental Group (2009), 2nd SAARC Transport Ministers Meeting (2009) have all agreed to a feasibility study, Sri Lanka Land Transport Policy also considers this initiative.

Objectives

To (a) undertake a feasibility study for the purpose of a land bridge which will include technical, oceanographic, environmental, transport, trade and tourism, legal and procedural, financial and economic consideration of the project.

Institutional Framework

The approval of the respective Governments would have to be obtained for each phase of this project. A SPV would require to be set up constituting agencies from both countries.

Description of Work

A comprehensive feasibility study to establish technical and economic feasibility; relevant studies for environmental and social assessment; construction of bridge/causeway for 32 km as a stage construction incorporating a single line highway with a shared railway track with provision for a parallel for a facility and grade to fully segregated railway and highway facility.

Costs
### Cost Estimate
Initial stage comprises 32 km of two lane roadway with railway track on one lane and structures to take both road and railway loadings – estimated as USD 25 million per km with toll gates, turn outs, total cost estimated at USD 1 billion.

### Duration of Project
Ten Years from Feasibility Stage to completion.

### Maintenance/Operating Cost p.a.
Estimated at 3% due exposure to environment Rs 3 bn per year

### Life of Project (yrs)
20 years

### Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
<th>Lending Agency, Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Business Model</td>
<td>A SPV with both State and private sector to manage the project.</td>
</tr>
<tr>
<td>Revenue Stream (for O&amp;M)</td>
<td>Toll charges, fees for rail use, rental for facilities on turn outs.</td>
</tr>
<tr>
<td>Investment Gap</td>
<td>From other toll road projects only around 1/3rd of cost could be recovered. Thus it is estimated that given recovery of railway is below this and recovery of commercial developments is high, the overall investment gap may be around USD 600 mn.</td>
</tr>
</tbody>
</table>

### Benefits

<table>
<thead>
<tr>
<th>Description of Benefits</th>
<th>Would increase regional trade flows, cheaper and faster container traffic to mid country destinations in South India, increase of tourism.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Quantifiable Value of Benefits for Life Time</td>
<td>Current traffic levels estimated at around 1 million passengers is expected to increase several fold during the life of the bridge. At least 5 to 6 freight trains per day could be expected along with an equal flow of cargo by road.</td>
</tr>
</tbody>
</table>

**Non Quantifiable Benefits**

- Financial Viability for PPP 3
- Economic Viability 6
- Regional Development Impacts 9
- Environmental Impacts 3

**Rating as follows:**

- Excellent 10; Very Good 9; Good 8
- Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally
Review of Sri Lanka Transport Sector

Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

- Social Impacts 6
- Equitable (Distribution of Costs & Benefits) 7

Other Remarks Nil
11.18 Colombo MC: Masterplan for Introducing Rapid Transit System

Justification/Background
A feasibility study has been proposed for constructing a metro rail system/BRT system in the City of Colombo and in the sub-urban areas as the main mode of transport is intended to increase the efficiency and productivity thereby improving the environment and public health. (MC 2010)

Objectives
To (a) develop a masterplan for introducing rapid transit for Colombo City; (b) identification of design parameters and traces and technology to be used; (c) assess institutional capacity to plan; develop; regulate and monitor a high quality people mover system in Colombo City; (d) develop business model and assist in the joint venture provision for rapid transit infrastructure.

Institutional Framework
National Transport Commission, Sri Lanka Railways, Passenger Transport Authorities, Colombo Municipal Council, Road Development Authority, Private Sector (Service Operators)

Description of Work
This includes (a) Feasibility Study to determine the suitability of technology, location, trace, capacity and other features, (b) design of such facilities, (c) Preparation of documents for project implementation.

Costs

Cost Estimate
Construction of infrastructure for 278 km section identified at present (Road, Stations, Terminals, Depots) Rs.5,051,750,000, Technology @ Rs.1,011,519,360 and Fleet Rs. 5,232,500,000.
Total capital cost Rs 11,295,769,360 (Approximately USD 700 million).

Duration of Project
Three years to start operations from the completion of the comprehensive Feasibility Study and Detailed Design.

Maintenance/Operating Cost p.a.
Operational cost per km is estimated at Rs. 60 per km. Maintenance cost would be the aggregated value of 7% of infrastructure, 15% of technology and 1% of fleet cost. Thereby total Maintenance and operational cost is approximately Rs. 630 per km.

2010
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<table>
<thead>
<tr>
<th>Life of Project (yrs)</th>
<th>20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
<td></td>
</tr>
<tr>
<td>Potential Investment Sources</td>
<td>Lending Agency, Public Sector</td>
</tr>
<tr>
<td>Suggested Business Model</td>
<td>Private sector operates the services under a regulatory body established with a JV of Municipal Council, NTC and Passenger Transport Authority.</td>
</tr>
<tr>
<td>Revenue Stream (for O&amp;M)</td>
<td>Bus fare, rental for commercial malls at Terminals.</td>
</tr>
<tr>
<td>Investment Gap</td>
<td>Revenue generated would only be sufficient to recover the operational and maintenance cost. Thereby the overall investment gap will be equal to the initial capital cost of USD 100 mn.</td>
</tr>
<tr>
<td><strong>Benefits</strong></td>
<td></td>
</tr>
<tr>
<td>Description of Benefits</td>
<td>Would increase quality of the public transport, minimizing the traffic congestion within Colombo city, Reduce the environmental pollution, attraction all cross sections of the society</td>
</tr>
<tr>
<td>Estimated Quantifiable Value of Benefits for Life Time</td>
<td>For both corridors 290,000 daily passengers are expected to use the proposed BRT. Thereby both corridors are expected to serve at a frequency of 1.30 min. at the peak period with a fleet of 130 buses.</td>
</tr>
</tbody>
</table>
| Non Quantifiable Benefits | • Financial Viability for PPP 7  
• Economic Viability 9  
• Regional Development Impacts 8  
• Environmental Impacts 9  
• Social Impacts 9  
• Equitable (Distribution of Costs & Benefits) 7 |
| **Rating as follows:** |  
Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0 |
| Other Remarks | Nil |
11.19 All Small Towns: Small Towns Transport & Traffic Improvement Program

Justification/Background

Many towns such as Moratuwa, Avissawella and Vavuniya evaluated in this report have typical traffic congestion arising from total absence of systematic traffic management system with road space used for a myriad of purposes each conflicting with the other resulting in poor utilisation of road space, poor mobility, access as well as safety. Many town centres also have poor inter modal integration as well.

These projects will reduce the economic losses in town centres due to congestion and pollution, improve the functionality and uplift the image of the town centre as well as attract new businesses to develop trade and economic activities.

Objectives

To (a) carry out detailed traffic and transport development plan, (b) design such interventions and (c) implement project: (d) provide institutional capacity development.

Institutional Framework

Local Authorities of respective towns, Road Development Authority, Urban Development Authority.

Description of Work

The works involved are: a) Identification of the town centers those are suffering from traffic congestion. b) Priority selection by a criterion basis considering traffic level and the business level in each town. c) Carryout the studies to identify the most economical and suitable engineering solutions to upgrade the utilization of the road space of such towns. d) Carryout economic analysis to identify the financial viability of the project. e) Construction and supervision of the proposed civil works. f) Formulate a project implementation unit to evaluation of the project and future capacity building of the related institutions.

Costs
### Cost Estimate

Cost estimated to range between USD 1 million to 5 million per town. No provision made.

### Duration of Project

5 – 10 Years

### Maintenance/Operating Cost per year

Rs 3 – 10mn

### Life of Project (yrs)

15 years

### Investment

<table>
<thead>
<tr>
<th>Potential Investment Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign lending agencies, Public and private partnership</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggested Business Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term investment that will be recovered by tax collections from business, parking charges, lending the activity areas etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Generation of Revenue Stream (for O&amp;M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue tax collection from business</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment can be recovered by increased business activities and income generations to local authorities.</td>
</tr>
</tbody>
</table>

### Benefits

<table>
<thead>
<tr>
<th>Description of Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduces congestion and time delays, improved road safety, and provides modernization of transport infrastructure to the city, multiple benefits in promoting trade, and business developments. Reduced emissions. Improved urban settings and land use.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Quantifiable Value of Benefits for Life Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shall be varied based on the present traffic levels and the level of improvements after the projects. The benefits by VOT and VOC savings in town centers of Colombo suburbs will be varied from Rs 150mn to Rs 500mn per years. This is around Rs 1200mn to Rs 5000mn for the life of the project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non Quantifiable Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Financial Viability for PPP</td>
</tr>
<tr>
<td>• Economic Viability</td>
</tr>
</tbody>
</table>

9

10
Review of Sri Lanka Transport Sector

Rating as follows:

- Excellent 10; Very Good 9; Good 8; Moderately Positive 7; Marginally Positive 6; No Impact- 5; Marginally Negative 4; Moderately Negative 3; Poor 2, Very Poor 1; Extremely Bad 0

Other Remarks

Figures have been estimated based on recent junction studies for similar nature of work for urban centers in Western Province.
# 12 Ranking of Selected Projects

The selected projects have been ranked in the following table based on the scores attributed to each project under the benefits categorized into six different categories. It can be seen from this analysis that most of the urban transport projects are ranked higher as opposed to national, provincial or rural projects.

<table>
<thead>
<tr>
<th>Project</th>
<th>Financial Viability for P.</th>
<th>Economic Viability</th>
<th>Regional Develop. Impacts</th>
<th>Environmental Impacts</th>
<th>Social Impacts</th>
<th>Equity Considerations</th>
<th>TOTAL</th>
<th>RANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Roads Network Development Project</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>45</td>
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<tr>
<td>Junctions Improvement Project</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>42</td>
<td>9</td>
</tr>
<tr>
<td>Development of Provincial Roads</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>4</td>
<td>9</td>
<td>6</td>
<td>44</td>
<td>7</td>
</tr>
<tr>
<td>Connectivity to Remote Villages</td>
<td>5</td>
<td>8</td>
<td>10</td>
<td>6</td>
<td>9</td>
<td>8</td>
<td>46</td>
<td>4</td>
</tr>
<tr>
<td>Redesign of Urban Roads for Improved Access &amp; Mobility</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>8</td>
<td>47</td>
<td>3</td>
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<tr>
<td>Electrification of Railways in Colombo Metropolitan Region</td>
<td>2</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>42</td>
<td>9</td>
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<tr>
<td>Project to Expand Railway Freight Market</td>
<td>6</td>
<td>9</td>
<td>6</td>
<td>8</td>
<td>5</td>
<td>7</td>
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<tr>
<td>Modernizing of Bus Terminals in Urban Areas</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>7</td>
<td>40</td>
<td>13</td>
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<tr>
<td>Domestic Airports Development Project</td>
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<td>7</td>
<td>10</td>
<td>3</td>
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<td>Multi Modal Transport &amp; Logistics Study</td>
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<td>6</td>
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<td>4</td>
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<td>Multi Modal Transport Access to BIA at Katunayake</td>
<td>9</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>7</td>
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<td>4</td>
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<tr>
<td>Southern Province: Multi modal Transport &amp; Logistics Operations Study</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>38</td>
<td>16</td>
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<td>Eastern Province: Development of Aviation for Tourist Promotion</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>44</td>
<td>7</td>
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<tr>
<td>Uva Province: Development of Roads for Tourism Promotion</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>5</td>
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<td>4</td>
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<td>Uva Province: Integrated Supply Chain Development Project</td>
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<td>9</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>33</td>
<td>18</td>
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<tr>
<td>Northern Province: Multi modal Transport &amp; Logistics Operation study</td>
<td>2</td>
<td>8</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>33</td>
<td>18</td>
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<tr>
<td>Feasibility Study for Indo-Sri Lanka Land Bridge</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>3</td>
<td>6</td>
<td>7</td>
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<tr>
<td>Colombo MC: Masterplan for Introducing Rapid Transit System</td>
<td>7</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>49</td>
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<td>Small Towns Transport &amp; Traffic Improvement Program</td>
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<td>10</td>
<td>8</td>
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II. Background

Sri Lanka’s economy has been growing at a 5% annual average since 1977. Economic growth reached 7.7% in 2006, 6.8% in 2007, and 7% in the first semester of 2008. The Mahinda Chintana (MC) - Sri Lanka’s 10-year (2006 – 2016) development framework – aims at increasing the country’s historical growth rates to over 8% by 2010. To achieve this goal, the MC focuses on three main areas: (i) accelerating growth through increased investment in infrastructure; (ii) achieving more equitable development through accelerated rural development; and (iii) strengthening public service delivery, particularly in health and education (World Bank, 2008).

A critical thrust of the Government of Sri Lanka’s (GOSL) strategy is to accelerate growth through increased investment in infrastructure. The GOSL views that investment in infrastructure has been neglected for decades and has become a binding constraint to growth and poverty reduction in Sri Lanka. The strategic focus of the Mahinda Chintana’s infrastructure development for the future aims at building modern, high quality and efficient infrastructure facilities; maintaining and rehabilitating the existing road network; constructing highways and expressways; increasing accessibility to safe drinking water; upgrading the railway sector; expanding the generation, transmission and distribution of electricity, and transforming the port and airport sectors to create an air-sea hub and logistics center. Mahinda Chintana has an envisaged spending towards infrastructure of almost US$ 1 billion annually between 2006 and 2011, equivalent to 3 percent of the country’s GDP in 2007. The medium term total capital requirements translate to almost 8 percent of current GDP, which may be optimistic in terms of available public resources (World Bank, 2008).

Randora, the National Infrastructure Development Programme, envisages channeling a larger share of investments to developing the basic infrastructure and services (power and energy, telecommunications, water supply and sanitation, transport, agriculture storage, health and education facilities). In transport, it includes roads, transport services, and ports and aviation. Randora’s vision is to provide accessibility to all population in the country, to have high and quality mobility road network for the transportation of passengers and goods, to provide an efficient and safe transport system at an affordable cost, and to develop Sri Lanka as the leading navigational, trading and commercial center in South Asia.

Against this background, the Sri Lanka Infrastructure Assessment (SLIA) will assess the country’s infrastructure endowment and performance, outline investment needs and strategic priorities within those established by the Mahinda Chintana, identify bottlenecks to economic growth and consider policy issues to address them. The SLIA will strive to indicate where
infrastructure improvements promote Mahinda Chintana’s overall objective of promoting economic growth, and will bring out international experience that is relevant to the country.

The review on Sri Lanka Transport Sector described in these terms of reference will contribute to the transport sector-specific analysis.

III. OBJECTIVE OF THE CONSULTANCY

The objectives of this consultancy are to review and assess the transport sector of Sri Lanka, to identify the bottlenecks and constraints, and to discuss the impact of past policies and reforms in the sector and to review the future infrastructure development plans with a view of a changing economy from low to middle income and towards achieving the development goals set out in Mahinda Chinthana. The analysis will include the following sub-sectors: roads (national, provincial and rural roads), railways, airports, transport services (train and bus services), and multimodal transportation (passenger and freight transport when applicable). It will be carried out in two phases:

PHASE I:

1. **Overview and stylized facts on the transport sector.** The consultant should review studies, background material, previous reports, policy statements, etc., undertaken so far within the past 10 years in each of the sub-sectors stipulated within the scope of this study. The Consultant is required to identify key recommendations made therein and to assess the validity and current status of such recommendations.

2. **Status of the transport sector including the following assessments:**
   
a. **Assessment of the institutional framework.** The Consultant is required to identify the institutional framework and key players in each sub-sector and discuss the strategies and policies currently in play and comment on the highlights and the deficiencies. The consultant is also required to comment on the functions carried out by related Ministries and Agencies and the impact of these agencies on the provision of these services. Identify the incentive structures within each organization and their ability to achieve enhanced efficiency. Identify the reforms undertaken so far in each sub-sector and the bottlenecks encountered. Discuss the current coordination in provision of services and implementation of projects amongst the land and air transport agencies. Discuss the priorities for reform and lessons learnt.

   b. **Assessment of the legal and regulatory framework.** Identify the legal and regulatory structures proposed and in place for each sub-sector and their effectiveness. The Consultant is required to describe and comment on the
organization structure, source of finance of the regulator and bottlenecks encountered in efficiently discharging its duties. The consultant is also required to discuss the legal enactments governing and impacting the sector and their limitations in achieving the proposed reform agenda. The consultant is also required to discuss the relevant applications identified in terms of the 13th amendment to the constitution. Discuss the priorities for reform and lessons learnt.

c. **Assessment of the sectoral ownership and operational structure.** Identify the different agencies involved in the provision of physical infrastructure and services and their ownership structures in each sub-sector within the central, provincial and local governments and assess their efficiency and structure of incentives. Identify other agencies that provide a facilitation role. Identify the proposed and actual reforms undertaken so far. Discuss the highlights of the reforms undertaken and identify the impetus necessary to proceed with proposed reforms. Identify the role of the private sector. Identify the bottlenecks in achieving the proposed targets, the priorities for reform and lessons learnt.

d. **Assessment of the sector performance:** Identify the capital investment in each sub-sector, state vs private sector. Discuss in brief the budgetary allocations and utilization of the budget. Analyze and comment on the revenues collected, cost recovery of services provided, staffing, maintenance of assets, governance and the efficiency of the services through benchmarking studies. Identify areas for performance improvement with appropriate indicators. The consultant should throw some light on how these issues are to be addressed through the proposed reform processes. The consultant is required to detail short and long term reforms in the proposed sub-sectors within the current economic and political context. The consultant is required to discuss the effectiveness and efficiency of the sector regarding service provision, usage of appropriate technologies, and capital investment generation. The consultant should identify the bottlenecks, areas of improvement, the priorities for reform and lessons learnt.

3. **Quick Assessment of Transport Investment Plans:** The consultant is required to discuss the significance and implications of the GOSL transport investment plan and targets for the sector (MC, Randora, Public investment program, and Draft Transport Policy of the GoSL, etc.) and the plans for the North and the Eastern provinces based on Uthuru Wasanthaya and Nagenahira Udanaya. Considering the main sectors of economic growth in each province of Sri Lanka in the next ten years, the consultant should identify the most strategic transport interventions that are suited for achieving the stipulated economic and social goals. The long list of projects considered for this will include projects in GoSL policy documents, studies as well as projects to be proposed by the experts. These strategic interventions would be short listed under each sub-sector of transport and also under multi-modal integration where appropriate to formulate a broad
strategic plan at national level and for each province. This would be done after identifying the transport related issues that constrain the overall economic potential for each province identified in provincial development plans and programs.

PHASE II:

4. **Benchmarking of the sector performance**: The consultant should compare the performance of the Sri Lankan transport sector with other relevant countries and regions. Identify the bottlenecks, areas of improvement, the priorities for reform and lessons learnt.

5. **Assessment of strategic transport interventions**: Building on results from the quick assessment of transport investment plans completed in Phase I, the consultant should assess the identified list of key strategic interventions after suitable consultation. The consultant should undertake Multi criteria analysis (MCA) for identifying optimal investments. The analysis should include provincial councils (including NP, EP, Uva, WP and SP) and local authorities (such as Colombo, Moratuwa, Avissawela and Vavuniya).

The consultant should identify the approximate respective costs, benefits and investment gaps in each case of the relevant strategic interventions.

6. **Assessment of financing gap**: Develop investment plans for around 10 such strategic interventions that would be considered as been optimal after identifying the respective cost, benefits and the financing gap in each case. Discuss the role of the private sector in developing such infrastructure. Comment on the long term sources of finance available internally and externally in light of the current political risk and global financial crisis. Identify how the gap in funding could be addressed. Identify the bottlenecks, priorities and lessons learnt.
REFERENCES

- Road Development Authority, National Road Master Plan 2007-17, 2007
- Sri Lanka, SAARC Regional Multimodal Transport Study-Country Report ,2006
- Civil Aviation Authority, Draft National Civil Aviation Policy of Sri Lanka, 2009
- Government of Sri Lanka, Mahinda Chinthana, 2005
- National Planning Department, Randora-A Ten Year Development Plan 2006-16, 2005
- National Budget Department, National Budget 2006,2006
- National Budget Department, National Budget 2007, 2007
- National Budget Department, National Budget 2008, 2008
- National Budget Department, National Budget 2009, 2009
- National Physical Planning Department ,Sri Lanka in 2030, 2007
- World Bank, Public Expenditure Review Program, 2006
- SAARC Regional Multimodal Transport Study (SRMTS), Sri Lanka Country Report, Asian Development Bank, April 2006
- Kumarage A.S. and W.J. Weerawardena, Greater Colombo Traffic Plan, University of Moratuwa, 2008
- Kumarage A.S., et al, Strategic Road Safety Plan, 2004
- National Transport Commission, Corporate Plan 2010-2014
- University of Moratuwa, Transport Plan for Avissawella Region, 1999
- Urban Development Authority, Development Plan for Vavuniya, 2009
- JICA, Colombo Urban Transport Project, 2005
- Sri Lanka Transport Board, Five Year Investment Plan 2009-2013
- Sri Lanka Railway, Development Plan 2009
WEB SITES

- Civil Aviation Authority of Sri Lanka, http://www.caa.lk
- Ministry of Highways and Road development, http://www.mohsl.gov.lk,
- Road Development Authority, http://www.rda.gov.lk,
- Southern Province Passenger Transport Authority, http://www.sprpta.gov.lk,
- Ministry of Local Government and Provincial Councils, http://www.pclg.gov.lk,