



Sierra Leone

Integrated Transport Policy, Strategy and Investment Plan

2013



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ABBREVIATIONS

BOOT	Build-own-operate-transfer
CBD	Central Business District
CMU	Coordination and Monitoring Unit
ECOWAS	Economic Community of West African States
FIRP	Freetown Infrastructure Rehabilitation Unit
GDP	Gross Domestic Product
GoSL	Government of Sierra Leone
ICAO	International Convention on Civil Aviation
IMO	International Maritime Organisation
IMPF	Integrated Mobility Plan for Freetown
ITPSIP	Integrated Transport Policy, Strategy and Investment Plan
IWW	Inland Waterway
MDA	Ministries, Departments and Agencies
MMMR	Ministry of Mines and Mineral Resources
MOFED	Ministry of Finance and Economic Development
MOTA	Ministry of Transport and Aviation
MOWHI	Ministry of Works Housing and Infrastructure
MRU	Mano River Union
MSU	Mechanical Services Unit
Mtpa	Million Tonnes Per Annum
NCP	National Commission for Privatisation
NMT	Non-motorised transport
NTSIP	National Transport Strategy and Investment Plan
PPP	Public Private Partnership
PRSP	Poverty Reduction Strategy Paper
PSO	Public Service Obligation
RAMS	Road Asset Management System
SLAA	Sierra Leone Airports Authority
SLCAA	Sierra Leone Civil Aviation Authority
SLMA	Sierra Leone Maritime Administration
SLPA	Sierra Leone Ports Authority
SLRA	Sierra Leone Roads Authority
SLRMFA	Sierra Leone Road Maintenance Fund Administration
SLRTC	Sierra Leone Road Transport Corporation
SNUTP	Strategic National Urban Transport Policy
SOE	State Owned Enterprise
SSATP	Sub-Saharan African Transport Policy
STOL	Short take-off and landing



Preface



PREFACE

This Preface provides the background to and context within which the Integrated Transport Policy, Strategy and Investment Plan (ITPSIP) was developed.

National Transport Strategy and Investment Plan, 2003 – 2007 (NTSIP)

The NTSIP served as an update of the previous ten-year transport strategy, and was aimed at directing transport investment during the transitional post-conflict period, specifically those funds sourced from donors.

From a transport infrastructure perspective, the NTSIP provided for the rehabilitation and de-bottlenecking of existing infrastructure and the procurement of equipment. Development initiatives included provincial airstrips, river jetties and feeder roads. From a sector governance perspective, the Strategy aimed at establishing sector coordinating capacity in MOTA; providing technical and material support to and capacity building in, and in some cases, the restructuring of government agencies; resolving perceived overlapping of responsibilities and associated tensions between agencies; and increasing private sector participation and user charging. Many of these themes remain are still relevant and have accordingly been retained in the ITPSIP.

Agenda for Change, 2008-2012 (PRSP-II)

The first full Poverty Reduction Strategy Paper was developed for the 2005-2007 period (PRSP-I). PRSP-I moved away from immediate post-conflict concerns and focused on the three pillars of good governance, peace and security; food security and job creation; and growth and human development.

The second Strategy – PRSP-II (2008-2012) – emphasised the importance of modernising the structure of the economy. Economic growth was targeted as the driver of poverty alleviation and job creation. The four pillars of the Strategy were Human Development (basic social services, education, health); Energy (reliable power supply); and Agriculture (value addition in agriculture and fisheries, and the promotion and diversification of agricultural exports). The fourth pillar was Transportation, specifically the development of a national transportation network to enable the movement of goods and people to facilitate increased investment and economic activity in agriculture, resources and tourism. The Strategy addressed the road system (all-weather trunk roads and feeder roads to support agriculture, highways between major urban centres and to neighbouring countries, a Freetown ring road, a national ring road), airports (upgrading Lungi, improving transfer to the airport, reopening other airfields), and water transport (jetties, navigational aids). PRSP-II further emphasised the importance of good governance in the public sector and the need for an enhanced role for the private sector in service delivery.

ITPSIP as Input to PRSP-III

The Integrated Transport Policy, Strategy and Investment Strategy (ITPSIP) (this document) is a blueprint for the transport sector in its own right, replacing the 2003 NTSIP and updating the transport actions in PRSP-II. Nevertheless, its primary value is as input to the Agenda for Prosperity 2013-2017 (PRSP-III)¹.

In PRSP-III the long-term development vision is of a middle-income country characterised by, amongst others, a diversified, export-led economy, with local and foreign private sector-led growth, exploiting

¹ The terms “PRSP-III” and “Agenda for Prosperity” are used interchangeably through this document.

natural resources responsibly and efficiently. This will be enabled by the right transport, power, information and financial services infrastructure.

The Agenda for Prosperity is structured around eight pillars: Economic Diversification, Managing Natural Resources, Accelerating Human Development, International Competitiveness, Labour and Employment, Social Protection, Governance and Public Sector Reform, and Gender Equality and Women's Empowerment. Whereas each of these pillars interrelates with transport somewhat, the first (diversification), second (resources) and fourth (competitiveness) rely heavily on an efficient national transport system. And that system, in turn, requires proper oversight (pillar 7 – public governance).

Under Pillar 1, the PRSP aims to stimulate economic growth through diversification, value-addition and higher local content. If middle-income status is to be attained there is a need to diversify into other economic activities which have longer-term growth and employment prospects. The intention is to encourage value-added activities in agro-businesses, manufacturing, fisheries and tourism in addition to the existing base of primary (mining) products.

Under Pillar 2, the country will strive for the sustainable management of its resources, including minerals and oil and gas. Importantly, the PRSP emphasises the need to achieve a fair and equitable sharing of benefits between the country and the companies exploiting the natural resource base.

To achieve the aim of Pillar 4, Sierra Leone needs to position itself as an attractive business destination, including by ensuring flexibility, speed and reliability in the movement of goods. This would be achieved in particular through better road and ports infrastructure required to facilitate trade. A specific target would be improving intra-regional trade with ECOWAS and MRU member countries, in particular with Liberia and Guinea.

Under Pillar 7, the PRSP acknowledges that State Owned Enterprises (SOEs) play a vital role in the country's economic development. However, there is a need to improve corporate governance of SOEs and enhance performance management. The PRSP further recognises that private sector participation is crucial to Sierra Leone's post-conflict economic recovery.

Preparation of the ITPSIP

The ITPSIP was developed under a defined Terms of Reference which identified a number of specific areas of the transport system for further investigation. The ITPSIP considers the "national" transport system, i.e. the major nodes and links that connect Sierra Leone to the world and its neighbours, and that provides links to major centres in the country of which district capitals are the smallest unit. Transport within districts ("rural transport") is addressed in principle with respect to road and inland waterway (IWW) transport. Transport within cities and towns ("urban transport") was not part of the ITPSIP Terms of Reference, but urban transport initiatives identified in the *Freetown Urban Mobility and Urban Transport Policy* study are included in the Strategy section of the ITPSIP.

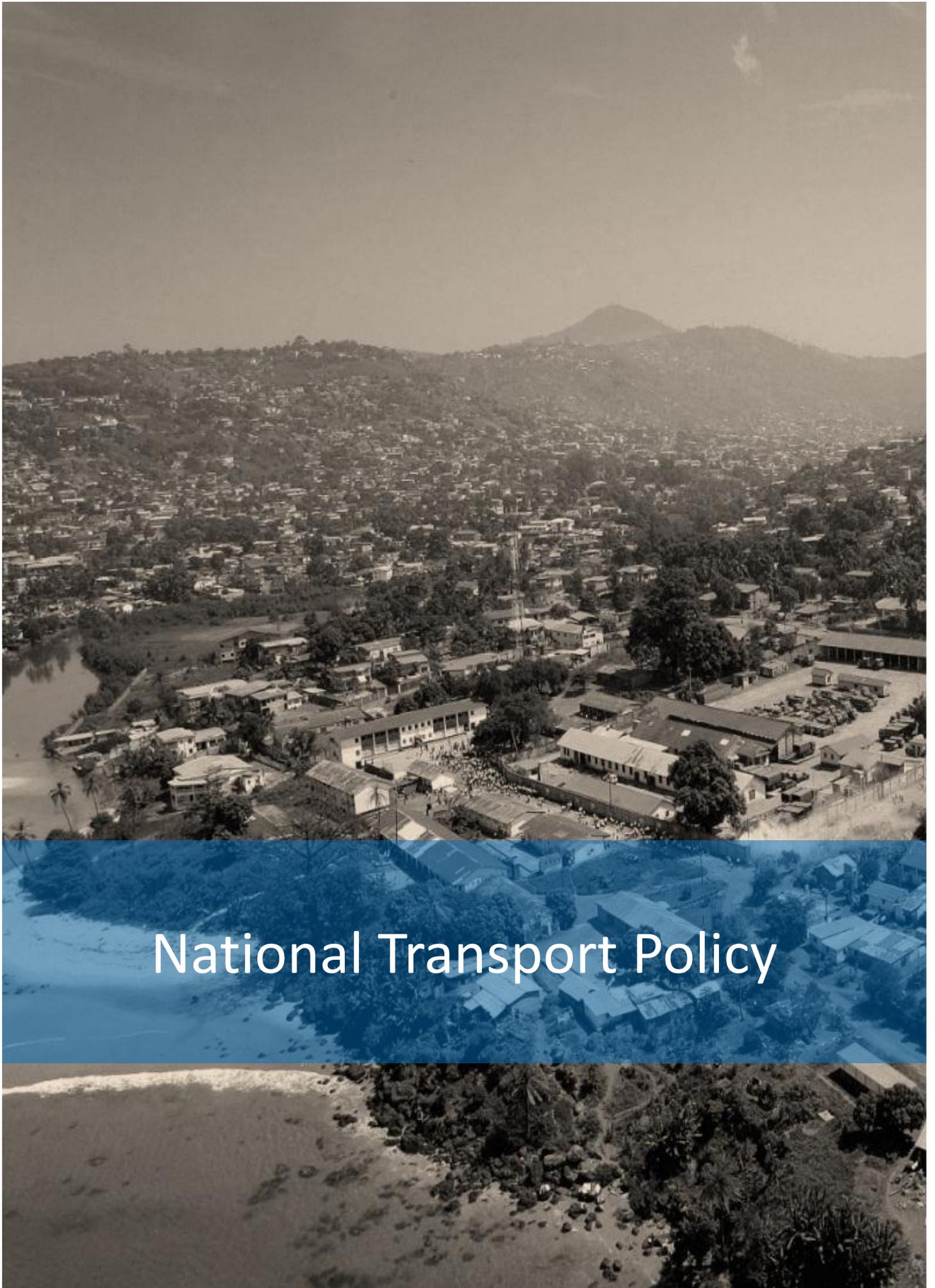
The ITPSIP mainly differs from the NTSIP in the way it is organised. The NTSIP follows a sub-sectoral approach where issues are addressed in the context of a certain transport mode. For each mode, it provides an overview, considers progress made and identifies issues which are subsequently addressed as strategic initiatives with an associated investment plan. The ITPSIP follows a more outcome-oriented approach. The desired performance of the national transport system is defined and the appropriate strategic intervention selected to achieve these results, whichever the mode. The resultant "integrated" strategy is therefore not a set of checklists assigned to ministries or agencies acting in parallel, but a prioritised set of co-dependent actions, the emphasis of which shifts between the actors over time and the achievement of which MOTA must therefore steer pro-actively.

The ITPSIP was prepared by AURECON in association with CEMMATS under an assignment for MOTA sponsored by the World Bank and the Sub-Saharan Africa Transport Policy (SSATP) programme. The consultant team prepared interim outputs in the form of working papers and technical notes from which the ITPSIP was reduced. Three workshops were held in the course of the assignment to validate findings and conclusions – the first with a wide range of stakeholders on the approach to the investigation and to source inputs, the second with a smaller group of key stakeholders on the preliminary findings, and the third with ... on

Structure of the ITPSIP

Apart from this Preface, the ITPSIP is structured in three parts. The “Policy” briefly reviews the performance of the transport system today. It defines a vision for transport and identifies guiding principles for how the transport sector should look and work to achieve that vision. The “Strategy” presents a package of interventions to achieve the Policy objectives. The first group of interventions aim to improve the physical transport infrastructure and services, and the second group the organisation and oversight of the transport sector. The projects emanating from the Strategy are packaged into an “Action and Investment Plan” which is a time and resource-delimited plan of activities. The Action Plan further provides yardsticks to establish whether the projects were implemented in a manner that achieves the stated policy.





National Transport Policy

NATIONAL TRANSPORT POLICY

The Policy section of the ITPSIP underpins the more exhaustive Strategy. It briefly reviews the transport needs of the country and shows how well these are addressed by the transport system today. Based on this understanding, the basic attributes of the required national transport system are identified and converted into clear guiding principles that then direct the Strategy.

A. Nature of Transport Requirements in Sierra Leone

The national Gross Domestic Product (GDP) was USD 1.9 billion in 2010. Agriculture is the most significant sector in the economy contributing about 45% of the GDP and employing about 65% to 70% of the population, mostly in the subsistence sector.

Domestic manufacturing and value addition are concentrated in the primary industries located in and around Freetown. Total production was estimated at 0.3 Mtpa in 2011. Sierra Leone's export base is narrow, and is dominated by a few mineral and agricultural products. Minerals, mostly diamonds and small quantities of rutile, bauxite and gold, provided the historic bulk of export earnings. Export performance of cash crops, coffee and cocoa as well as shrimp and fish has improved recently. Iron ore exports, due to production ramp-up of two large-scale mining projects are set to dominate exports for the foreseeable future. Oil and gas also has the potential to become an export sector. Petroleum products, food commodities and raw materials together make up close to 80% of Sierra Leone's imports. Machinery, transport equipment, building materials and manufactured goods comprise the rest. As for most developing countries, the volumes of imports (1.2 Mtpa, 2011) significantly exceed exports (0.2 Mtpa, excluding mining). The economic diversification strategy proposed in PRSP-III should contribute to improving the trade balance.

The national population was estimated at 6 million in 2012, one fifth of which in the Western Area. Other significant population concentrations are along the Bo-Kenema-Kailahun and Kambia-Port Loko-Makeni-Magburaka corridors. The population growth rate is estimated at nearly 3% in the short term, stabilising later-on at around 2%. GDP per capita was USD 327 (non-PPP basis) in 2010. The ITPSIP is premised on a commodity-driven initial annual GDP growth of about 20%, levelling off at rates between 5% and 7% later-on. This would result in GDP per capita more than quadrupling in 25 years – in line with the vision set out in the Agenda for Prosperity.

Current transport demand is modest. It is estimated that in 2012 there were fewer than 700 freight trips per day (255 million tkm/ann.) on the national (long-distance) road network, and about 7 000 passenger trips daily (1 083 million pkm/ann.). In that year, there were roughly 500 vessel calls at the Port of Freetown and Kissy Oil Terminal, and fewer than 3 000 aircraft movements at Lungi Airport. The projected growth in the economy and people's well-being is high and – given the relationship between economy and transport demand – will translate into increased trips and also changes in trip nature. Total road trips are projected to grow at nearly 11%/ann. reflecting improved incomes and associated increased trade.

The transport system is configured to provide basic access to and within the country. Except for the mining sector, in most cases the capacity of the existing components will be adequate for some time. The major challenge will be adding additional layers of transport alternatives that will provide choice and improve mobility for especially the mining and tourism sectors, as well as a more discerning passenger.

B. Transport System Performance

The transport system consists of a network of infrastructure including all transport modes such as road, rail, ports, airports and inland waterways, and the transport services operating on the network.

Different parts of the transport system perform different functions, e.g. the Port of Freetown and Lungi International Airport connect Sierra Leone to the region and to the rest of the world; primary roads connect the capital with regional and district centres; and feeder roads connect small towns and villages with each other. The transport system can therefore be divided into functional classes as indicated in the following table.

Whether a transport system performs well is assessed in terms of *continuity of service* (is it at all possible to travel from any one point to another) and *level of service* (the quality of travel including safety, speed, reliability and choice). For transport infrastructure, levels of service are the result of *condition* (serviceability) and *capacity* (size).

The table provides a summary of the performance of the transport system in Sierra Leone, distinguishing between the different functional classes. *Continuity* is generally ensured on all functional levels, i.e. the existing infrastructure network supports access and connectivity between Sierra Leone and other countries, and between cities/ towns within Sierra Leone. The *condition* of infrastructure is generally fair to good for higher functional classes, but for lower functional classes it is basic and the condition generally poor. Infrastructure mostly has sufficient *capacity* to serve current demand. Capacity constraints are expected over the short to medium term (five to ten years) at the Port of Freetown (container terminal) and on some roads.

System-Performance Interface

Link	Continuity of Service	Level of Service
International	Served by airport and port network. No continuity gaps	Regional airport and port: Condition: Fair, operational. Some shortcomings have been identified, and infrastructure is generally old Capacity: Container terminal constraints at the Port of Freetown
Regional	Served by road, airport and port network. No continuity gaps	Regional roads network: Condition: Generally good Capacity: Generally good. Some regional road upgrades will be required by 2022
National	Served by road network, and to a limited extent by the airports and ports network No continuity gaps; however there is a need to reinstate airport services at national level	National road network and national port facilities: Condition: Generally in a good condition Capacity: Generally sufficient. Some national road upgrades will be required by 2022
District		Domestic airport facilities: Condition: Rundown, with rehabilitation and/or upgrading required
		District road network: Condition: Generally still in a poor condition Capacity: Generally sufficient. Constraints are, however, experienced on one district road in Freetown area over the short term
Local	Served by roads and inland waterways (and associated ports) network. No continuity gaps	Roads and inland waterways: Condition: Infrastructure generally basic and conditions poor. Capacity: Generally sufficient due to small number of traffic.
Resources	Served by rail, ports and road network No current continuity gaps. There is, however, a need for new infrastructure in the future.	Condition: Generally good. Capacity: Sufficient at present, but additional capacity required

C. Vision: Sustainable Transport System

The objective of the ITPSIP is to anticipate and respond appropriately to the growing and changing transport needs of the country in a sustainable manner. “Sustainable” has both physical (infrastructure and transportation services) and organisational (industry structure) dimensions: The transport solution must address a real and not perceived need by matching the service provided to the nature of the demand, including the selection of appropriate mode or modes. Initially, the minimum qualities required of the service are safety and predictability. Later-on, sustainability is ensured by introducing choice (competition). The specific transport solution must be managed by the entity best equipped to understand and address the question involved, and that entity must not be conflicted. That entity must be self-supporting in terms of funding, skills and other resources. These attributes will ensure an efficient, least-cost transport system that can endure over time.

The ITPSP must unpack this understanding into discrete principles which the Strategy can convert into practical actions. There are seven such principles which will guide a sustainable development of the sector:

a. Clear Hierarchy of Needs

The transport system can emphasise different needs such as social vs. commercial, or access vs. mobility, or rural vs. urban, or passenger vs. freight – all of which are all legitimate objectives in their own right. The focus of the ITPSIP is the “national” transport system implying an emphasis on long-distance, large-volume trips. It aims to support the national economic growth objectives and is therefore primarily focussed on freight and high-mobility passenger needs. Addressing the higher-level needs creates the backbone which also benefits the more local, access-oriented and social needs of the country. Under the national policy of decentralisation, local transport issues are more appropriately addressed by local entities.

b. Methodical Classification System

To craft an integrated strategy a common platform is required that classifies performance characteristics on a non-modal basis. Such a platform must be organised in terms of transport outputs (results) that reflect the hierarchy of needs above. The major dimensions are therefore connectivity (the nature and size of trip generators linked), volume (size of demand) and mobility (how much interruption can be tolerated).

c. Appropriate Mode Role Allocation

Individual modes will offer competing or unique solutions in the layers of the classification system. In its early development, the Sierra Leone transport system will offer single-mode and single-service solutions but as it matures, increasingly competing modes and services. At first the Strategy will therefore be required to take a view on which mode or facility will provide the most cost-effective solution. In some cases there is practically only one solution, e.g. international connectivity for freight by sea and passengers by air. Within and around the country, the most versatile mode is road transport and it is expected that it will dominate the Strategy.

d. Systematic Development Path

Whereas the first three principles aim at doing the right thing, it is also important to do first things first. That which exists should be strengthened and preserved and when the time is ripe, upgraded or replaced. A systematic development path would therefore work through the five “Cs” as follows:

Continuity (complete the system where there are important connectivity gaps); Condition (reinstate and maintain the system as designed); Capacity (add additional capacity where the system is under stress); Competition (introduce alternative infrastructure and services to widen choice); Configuration (reshape the system where the existing design is not appropriate anymore). This approach favours incremental change and is distrustful of paradigm shifts before their time has come.

e. Separation of Conflicting Responsibilities

The transport system, like any other regulated system, entails organising the sector and laying down criteria for who may participate, applying those criteria and actually providing the services. There are clear conflicts of interest if the same entity is responsible for more than one of these roles. Where there are both safety and commercial entry criteria, there is also a conflict if the same entity applies both. A “sustainable” system requires that these roles be ring-fenced from one-another.

f. Sharing Opportunities and Risks with the Private Sector

Within the domain of providing infrastructure and transportation services, the public sector should not have a monopoly. The private sector is generally more innovative, reliable and frugal, especially when in competition with others. Private entities have a proven appetite for risk in transport. Transportation services are generally at a scale, investment threshold and utilisation that they can be provided by the private sector. Transport infrastructure serving predominantly commercial needs (ports, airports) are similarly attractive for outsourcing. Public-good infrastructures (most roads) can at best be provided under commercialised arrangements by public entities.

g. Sharing Responsibilities with Beneficiaries

Following the hierarchy of needs under the first principle above, those that utilise transport infrastructure for essentially mobility (as opposed to access) purposes or for gain should be expected to share in the cost of that infrastructure. As the economy and national income profile grow, so will the transport system ripple out from the initial national backbone to the more local links. User contributions are expected to follow suit. The transport system will be perfectly sustainable where the marginal costs match the marginal contributions of users. This objective will be achieved layer-by-layer in the transport system over time.



National Transport Strategy

NATIONAL TRANSPORT STRATEGY

The Strategy converts the overall policy objectives into tangible interventions for which responsibility can be assigned and the results monitored.

It is divided into two parts. Part A addresses the physical transport system comprising transport infrastructure and transportation services, in other words the desired type and level of service required by the users and beneficiaries of the transport system. The physical transport interventions contained in the Strategy are shown on a pull-out map at the end of this document.

Whereas part A represents the “function” of the transport system, part B addresses the organisational “form” the sector should take to achieve the desired transport outputs and outcomes.

A. TRANSPORT SERVICE DELIVERY

The Strategy approaches transport service delivery as a series of interconnected layers. A trip could start as a purely local walk or ride, progress as a taxi ride on an area road and continue as a bus journey on a national road. The transport system is therefore the assemblage of feeder, collector and arterial transport infrastructure and transportation services.

The higher layers in the transport system typically have “mobility” as objective, i.e. higher-speed, higher-volume, uninterrupted transport often with a commercial purpose. In contrast, the lower layers have “access” as their primary goal, i.e. providing entry into the transport system usually at lower speeds and service levels, at lower volumes and with more interruptions, often for transport users with local or social objectives.

From a national perspective, the principal layer is that which ties Sierra Leone to the rest of the world, followed by the cross-border (regional) tier, the level that links key national points and the layer that links in secondary centres. Mobility requirements are prominent initially, and give way to access requirements at the lower levels. There is a point where transport takes on a local (urban or rural) character which, under Sierra Leone’s policy of decentralisation, becomes the responsibility of local government. This is therefore where “national” and “local” transport strategies interface.

The transport system functions well when there is continuity, i.e. no logical breaks in infrastructure or services. Whereas interventions to improve mobility would usually require an economic justification, continuity in the first place has to do with political integrity. To govern the country properly, there must be at least a basic transport system in place that ensures connectivity. In a post-conflict developing country it must therefore be expected that the Transport Strategy will include interventions to secure continuity even if these cannot be justified in terms of traditional transport economic assessments. However, “continuity” is not an excuse for gold plating or redundancy. In this Strategy, continuity interventions are limited to fundamental gaps primarily in the higher layers of the transport system.

a. CLASSIFYING NATIONAL TRANSPORT SYSTEM SYSTEMATICALLY

The first intervention proposed in the Strategy is to systematise the approach as set out in the above introduction, to form the foundation and a consistent reference point for national transport planning and prioritisation. A classification system ensures that the transport network supports all functions required of it (i.e. regional travel to local travel), assists in identifying gaps in the network (i.e. functions not being served adequately at the moment), guides decisions in appropriate mode/s to serve a specific function of the network, and ensures integrated transport planning, i.e. a transport (including

infrastructure) network where different modes and services support each other to allow efficient, seamless and cost effective travel to trip makers.

1. APPROVE AND IMPLEMENT NATIONAL TRANSPORT CLASSIFICATION SYSTEM

Whereas there is a functional classification system for roads, none of the other modes are presently classified according to their function; and by extension, there is no single cross-cutting classification platform for transport in the country.

The road classification system reflects the functions of mobility and access. Primary Roads (Class A) are the main trunk roads serving corridors characterised by relatively high volumes of traffic and with a high proportion of long-distance trips, including those of an international or inter-regional nature. They connect the national capital with regional and district centres and with the trunk roads of neighbouring countries. Secondary Roads (Class B) are principal collector/distributor roads for the primary network, serving major district centres and tourist or agricultural areas, generating a considerable number of medium and long distance trips. Tertiary or Feeder Roads (Class F) are primarily local land-service roads, serving as collector/distributor routes for the secondary and some primary routes. They also provide access to chiefdom centres, which are the lowest level of administrative authority of government.

The classification system for roads can be simply extended to other modes, as shown in the following table. The table also provides a description of the type of trip generally associated with each function. It should be noted that the classification system addresses the non-urban transport system. The same principles and approach could of course also apply to urban networks – but that is not the focus here.

Different modes can serve the same function (e.g. freight can be conveyed by road or rail), but one mode would typically outdo the other depending on the operating conditions.

Functional Classification System for Future Infrastructure Network

Function	Sub-Function	General Description of Trip	Typical Trip Characteristics	Typical Mode
Primary (non-urban)	Inter-continental	High volumes of passengers and/or freight between continents. Traffic is characterised by the need for high mobility, uninterrupted movement. Transport services are generally non-stop (or express) trips from start to finish. Travel distance is long.	3 000 km or more, low to bulk volumes	Marine end calls, air
	Regional	Relatively high volumes of passengers and/or freight between regions (i.e. connecting capitals of neighbouring countries, and large border posts with each other). Traffic is characterised by the need for high mobility, uninterrupted movement. Travel distance is relatively long. Through traffic is dominant (i.e. the majority of traffic does not originate or terminate in the immediate vicinity).	500 to 1000 km or more, low to bulk volumes	Coastal shipping, air
	National	Relatively high volumes of passengers and/or freight between the capital (Freetown) and provincial and district centres, and main transport nodes (sea ports and international airports). Traffic is characterised by the need for high mobility, uninterrupted movement. Travel distance is relatively long. Through traffic is dominant.	Less than 500 km, low to bulk volumes	Rail, road, air (if longer distance)
Secondary (non-urban)		Infrastructure primarily connects district centres, towns, villages and tourist or agricultural areas. Allows a balance between mobility and access; i.e. infrastructure allows opportunity for passengers and/or freight to join the route whilst still maintaining a fair travel speed. Some conflicting movements are experienced between vehicles (e.g. at intersections where traffic may need to slow down or stop). Traffic is characterised by a mixture of through traffic (long distance trips) and traffic having an origin or destination in the immediate vicinity (short distance trips).	Less than 300 km, low to medium volumes	Road, inland waterway
Feeder (non-urban)		Relatively low volumes of passengers and/or freight over short distances between individual properties and/or higher mobility routes. Traffic is characterised by the need for access (i.e. frequent opportunities for passengers and/or freight to start or terminate a trip). Most traffic has an origin or destination in the immediate vicinity. There is a fair amount of conflicting movements between vehicles.	Less than 50 km, low volumes	Road, inland waterway
Urban		Urban infrastructure per definition is infrastructure located within the boundaries of the urban area. Urban infrastructure perform a similar range of functions as listed above (regional, national, secondary, feeder), but at a different scale (e.g. a “national” urban road can be a road connecting the outer boundaries of the urban area with each other and therefore allowing high mobility throughout the urban area). “Urban” infrastructure is all infrastructure allowing travel within the same urban area.	Less than 30 km, low volumes	Road, inland waterway
Mining		Mining infrastructure is specific, purpose-built infrastructure catering for the transport needs of mining activities such as the transport of bulk minerals (heavy volumes) between mines and processing plants or exporting facilities (e.g. a sea port). Generally, this infrastructure allows high-mobility transport over medium to long distances.	Bulk volumes	Rail, road

b. MAINTAINING INTERNATIONAL CONNECTIVITY

Sierra Leone forms part of and interacts with the wider region (MRU and ECOWAS) but also the rest of the Continent and the World. To accommodate movement of goods and people across its borders, to facilitate increased investment and economic activity (in sectors such as resources and tourism) and to improve its international competitiveness, the country requires adequate transport means that link it to the rest of the World.

International connectivity (excluding regional connectivity addressed in the next section) is served by Lungi International Airport (passengers and light freight) and the Port of Freetown (bulk freight).

2. UPGRADE LANDSIDE OF LUNGI AIRPORT AND INCREASE GENERAL CAPACITY INCREMENTALLY

Lungi International Airport is the main entry/exit for international travellers to the country and handled about 210 000 passengers during 2011. Passenger numbers are expected to pass the 1 million mark within the next 15 years.

The capacities of the existing airside facilities at the airport (the runway, taxiways and aprons) are sufficient to serve current as well as predicted future air traffic movements, and no major upgrades will be required for at least the next ten years.

The landside facilities (departures and arrivals concourses) at the airport have recently been upgraded and expanded. This was required to address ageing infrastructure, congestion and low levels of service during peak periods. The current facilities offer an improved capacity and service to the passenger, and are adequate for current passenger levels. Further expansions will, however, be required in the medium to long term as passenger numbers continue to increase. These expansions should be implemented in a phased manner to minimise disruptions to airport operations.

In the short to medium term Lungi is capable of handling all air craft and passenger movement at the required levels of service. The airport area can still accommodate future terminal expansions, including the option to develop on the northern side of the runway which is currently vacant, and the Airports Transfer Project that is being implemented will largely address the need for safe, comfortable and fast transport across the estuary.

In the long term, certain constraints are, however, expected to develop. The available airport area places a limit on the long-term expansion of landside facilities which are currently located on the southern side of the runway. Passengers also have to travel across the Sierra Leone River estuary, which requires additional transfers and travel time. GoSL has therefore considered developing a new international airport on the south bank.

3. DEVELOP NEW AIRPORT (MAMAMAH) IN FUTURE

Following the identification of the possible need for a new international airport in the long term, a site was selected at Mamamah on the outskirts of the capital. GoSL has identified this investment as an immediate priority and has made contractual commitments for the project to proceed.

4. RESTORE FREETOWN PORT CONDITION

The Port of Freetown consists of the Queen Elizabeth II (QE II) Quay and Kissy Oil Terminal, as well as two ferry terminals. It is the major logistics hub for Sierra Leone's imports and exports.

The condition of the port facilities at QE II has seen a fair amount of improvement since the civil war. Material handling equipment has been upgraded, and a dredging programme has been initiated to achieve a standard depth of 11 m.

During the period of civil war there was limited maintenance of the aids to navigation at the port and all buoys in the approaches to Freetown, including the important fairway buoy at the entrance to the port that went missing. The Sierra Leone Ports Authority (SLPA) is busy with a programme to reinstate these navigational aids and has also rehabilitated the Cape Sierra lighthouse. Mining companies have further installed three buoys along the channel of the Sierra Leone River to guide vessels travelling upstream to the ports of Pepel and Thofeyim.

Facilities at the Kissy Oil Terminal are old, in poor structural condition and at risk of failure. Structural refurbishment and rehabilitation of facilities are planned to address these concerns and to ensure continued operations at the terminal. A fire fighting system should be installed to mitigate risks related to fire hazards.

5. *EXPAND FREETOWN PORT CONTAINER TERMINAL*

The port handled about 1.3 million tonnes per annum (Mtpa) of mostly imports of general cargo and about 0.1 Mtpa of liquid bulk during 2011. This is expected to grow to about 7 Mtpa of general cargo and 1 Mtpa of liquid bulk within the next 15 years.

The QE II Quay consists of a multipurpose terminal (general cargo), break bulk, containers and bulk, and holds six berths of which four are dedicated container berths. It is expected that cargo trends at the Port of Freetown will follow the global trend of containerisation and that the bulk of the cargo (up to 90%) will consist of containers within the short-term. As a result, the container terminal at QE II is expected to become inadequate within the next five years, requiring the multipurpose terminal to be converted into an additional container terminal by 2017.

Further expansions to container terminals are not deemed necessary until about 2035, at which time two additional reclaimed terminals with additional berths, material handling equipment and storage area will be required.

Until recently QE II had no shore cranes available and cargo handling had to be done using ships gear. This placed a constraint on the throughput capacity of the port and the type of vessels that were able to call at the port. During 2012, two mobile port cranes were inaugurated at QE II. Further container handling equipment should be procured in the short and medium term (two more cranes by 2017 and one more crane by 2022) to further increase the loading rate and throughput capacity of the port.

Berth capacity at the port is expected to be sufficient over the medium term, considering the procurement of additional material handling equipment. Two new berths should be provided by 2035 (as indicated above) in order to achieve the forecasted throughput.

Kissy Oil Terminal will require upgrading to facilitate growing demand for petroleum products to the country. Plans are in place for the construction of additional storage facilities as well as pumps and pipelines to increase the material loading rate.

6. *SECURE FUNDING FOR PHASE II OF LUNGI AIRPORT TRANSFER PROJECT*

MoTA embarked on an airport transfer project in 2012, with the objective of improving mobility between Lungi International Airport and the Freetown. The project has two main components: establishing a regulatory and administrative framework (the Airport Transfer Unit) and transport

infrastructure rehabilitation. The rehabilitation component consisted of the construction of helipads at Aberdeen and Lungi and jetties at Government Wharf, Kissy and Tagrin ferry terminals.

The first phase of the project was completed in early 2013. The second phase is planned for implementation towards the latter part of 2013 and will entail the procurement of additional rolling stock (ferry boats and shuttle buses) to increase service frequency, the delivery of additional facilities (passenger terminals, jetties, shuttle bus stations), construction of a road to the airport, and training of personnel.

The funding for implementation of Phase II however still needs to be secured. The project addresses connectivity on an international level (connecting the capital with a major transport mode), and full rollout of this project is a priority for ensuring international and regional access to and from Sierra Leone. It is therefore of strategic importance to secure funding, and ensure implementation of Phase II of the airport transfer project.

Another aspect to consider in the implementation and managing of the airport transfer project is to secure and reserve land around existing or planned airport transfer facilities. Some problems are currently being experienced with regards to encroachment on such facilities. Sites earmarked for development of future facilities should be secured, and the land use around existing and future facilities properly planned to support a safe environment for aviation or marine operations, and to support functions associated with the international traveller.

C. SUPPORTING REGIONAL INTEGRATION

Sierra Leone forms part of the Mano River Union (together with Liberia, Guinea and Ivory Coast) as well as the Economic Community of West African States (ECOWAS). These regional institutions aim to promote the free movement of persons, services and capital, expansion of trade (and elimination of related barriers) between member countries and with the rest of the world, developing cooperation in the production of agricultural and manufactured products of local origin and the creation of conditions favourable to an expansion of mutual productive capacity. For the country to contribute to the objectives of the various regional treaties, declarations and protocols, it requires an efficient transport network to link it to the rest of the region.

Regional connectivity is served by the Lungi International Airport and the Port of Freetown (already addressed in the previous section on international connectivity) as well as regional roads linking Sierra Leone to Liberia and Guinea and beyond.

7. UPGRADE REGIONAL ROADS TO NEIGHBOURING COUNTRIES

The roads making up the regional network are the primary road from the border of Guinea via Port Loko to Freetown, and then further via Masiaka, Yonibana, Bo, Kenema and Zimmi to the Liberian border at Gendema; and the primary road from Gendema northwards to Guinea, via Zimmi, Joru, Pendembu and Buedu.

The capacity of these regional roads is considered to be sufficient to serve the traffic demand over the short term. However, capacity constraints are expected over the medium and long term on some parts of the network, and an envisaged 456 km of regional roads will require lane additions to ensure adequate service levels to road users.

Some portions of the regional road network are still unpaved (gravel road) despite its regional connectivity function. From a strategic point of view and in order to give effect to the objectives of the

MRU and ECOWAS protocols, all of the regional road network in Sierra Leone will be upgraded to paved standard within the medium to long term.

A number of road rehabilitation and/or upgrading projects are currently being implemented, or is planned for implementation within the next ten years. These projects are shown on the pull-out map at the end of this document. Once implemented, most of the regional road network will be of paved standard. The only remaining links to put out on contract are sections of the A15 and A24 between Joru and Pendembu.

8. REHABILITATE AND MAINTAIN BRIDGES AT BORDERS

Regional integration requires continuity of transport across country borders. There are three cases where road bridges are in a poor state, thereby interrupting cross-border mobility of road transport.

Three bridges are targeted: the Manu River Union (MRU) bridge between Sierra Leone and Liberia at Gendema/Bo Waterside, the Kosidu/Kameindor bridge between Sierra Leone and Guinea, and the Madina Oula-bridge between Sierra Leone and Guinea. This last bridge is actually situated within Guinea, but affects regional traffic.

In all three cases, the bridges have to be analysed in terms of traffic levels as well as structural integrity before a more detailed remedial plan is drawn up.

9. EXECUTE RESOLUTIONS UNDER MRU AND ECOWAS PROTOCOLS ON CROSS-BORDER TRANSPORT

Cross-border transport and security in both the Mano River Union (MRU) and the Economic Community of West African States (ECOWAS) is governed by community protocols. The MRU agreements deal with customs duties for freight transport, the removal of tariff and non-tariff barriers affecting intra-union trade, as well as the need for a joint security committee to monitor border security and related issues between the member states. ECOWAS equally promotes intra-regional transport and trade through the free movement of people and goods, regulations and specifications for inter-state road transportation, the need for mutual administrative assistance in customs matters, documentation and legal requirements for the inter-state road transit of goods, as well as objectives for co-operation between member states in trade and customs matters.

The implementation of these protocols, however, falls short. In some cases this is as a result of ignorance but also due to corruption and dishonesty of border-post officials. The public is also uninformed of these provisions, and therefore do not insist on the stipulated treatment. The effect of non-compliance is severe time delays at borders due to the difficulties with freight clearance, documentation requirements, insufficient logistical, infrastructure, and human capacity, as well as freight verification. Harassment, extortion, and bribery of travellers take place due to a lack of a published tariff book and poor transparency in border post operations.

The primary solution is for Sierra Leone to establish a clear institutional mandate at local level for implementation of the existing protocols/conventions. Other solutions include carrying out the standardisation and harmonisation of cross-border procedures and documentation as well as tariffs and customs duties – as provided for in the protocols. Road users should be appropriately educated. GoSL should also expedite the issuing of MRU ID cards and ECOWAS passports among citizens.

d. ENSURING NATIONAL CONTINUITY

In the same way as cross-border continuity is required, the next (national) layer of the transport system should equally provide uninterrupted service.

10. CONSTRUCT ROAD FERRY BRIDGES

The national road network is currently served with four river ferries: Manawu (on the A24) and Jalwulo (A25) on the primary road network, and Gendema (B19) and Sumbuya (B04) on the secondary network.

The construction of at least basic bridges at Manawu and Jalwulo is required to ensure the integrity of the national road network, even though traffic volumes are modest. Roads leading to or from the ferry crossings are currently being constructed or were recently reconstructed. In the longer term, bridges may be considered at Gendema and Sumbuya.

11. DO ROUTING STUDY FOR KABALA-KAMAKWIE ROAD TO CLOSE NATIONAL "RING ROAD" AND TO SUPPORT MINING AND ENERGY

The concept of a national "ring road" for Sierra Leone dates back to the early 1990s, when it was first proposed as a solution to stimulate economic growth through increased connectivity. It was an initiative specifically aimed at supporting the mining and agricultural sectors. The goal of a ring road has largely been attained, with the ring now extending south-east from Freetown via Bo to Zimmi, and north to Kabala via Yengema. From Freetown the ring runs northwards to Kamakwie. The only missing part of the ring network is a section between Kabala and Kamakwie.

The area around Fadugu (between Kamakwie and Kabala) is mineral rich and will house a future large-scale hydro-power development on the Bumbuna River. Whereas constructing an east-west road through this hilly area was not a priority previously, and is also not required from a purely policy perspective since Kamakwie is not a district capital, it would be appropriate to investigate more direct routing options between these towns and establish the feasibility of establishing this link in the national ring.

12. REINSTATE DOMESTIC AIRPORTS NETWORK AT AIRFIELDS PREVIOUSLY SERVED

Until fairly recently, there used to be a periodic scheduled service from Hastings to Bo, Kenema and Yengema airports, with occasional services to Bonthe, Gbangbatok and Kono.

Today, private road transport takes in excess of four hours to Bo, the closest one of these towns to Freetown. From a national transport system perspective, the level of commercial mobility is low. Also, the hinterland is not within easy reach from a security or emergency response viewpoint.

Hastings airfield (IATA code HGS) would form the natural nucleus of a national airports network. It is located fairly close to Freetown on the same side of the river estuary. It has the basic facilities in place which require only modest rehabilitation.

It is expected that Bo (KBS), Kenema (KEN) and Yengema (WYE) would again support a basic air service as in the past, serving the general commercial interests of these towns. The airstrip at Magburaka could provide access to the central mining area, including new iron developments north-east of Magburaka. The airstrip at Gbangbatok would provide access to the rutile mining area, and potentially also to tourism (game fishing). However, in this capacity it would compete with Bonthe airport on Sherbro Island which may provide a more attractive staging post for tourists.

Except for Bo, the runways have either never been paved or would require some rehabilitation of paving or regravelling. However, a compliance audit (status quo) assessment would be required of these airports and their facilities, so that an investment plan can be prepared for them to comply with the basic ICAO safety standards.

The intention of this Strategy is not for GoSL to undertake major investments in facilities that serve primarily commercial purposes. The delivery model and roll-out plan for these domestic airports is addressed under initiative 35 later-on.

13. PROMOTE NATIONAL AVIATION FEEDER SERVICE

The domestic air service referred to in the previous initiative was operated with a 15 seat, short take-off and landing (STOL) turbo-prop aircraft. Although there is some informal private helicopter movement in the country, this is the result of the condition of the airfields' runways and the absence of a more formal air service. It is expected that the inter-provincial routes which have stage lengths in excess of 150 km will be most economically served by fixed wing aircraft, with higher operating efficiencies and longer ranges. However, it is expected that a complementary Lungi-Hastings transfer service would develop where helicopter is likely to be the preferred means of transfer.

Although not operating domestic aviation services itself, GoSL should actively promote the potential of these services, and make potential service providers aware that the domestic aviation environment is again "open for business".

14. CONSIDERATIONS FOR THE REINSTATEMENT AND DEVELOPMENT OF A NATIONAL RAIL SYSTEM

Until 1975, the country was served by a narrow gauge rail line providing a passenger services between Freetown and Daru and branching off to Makeni. Many remember the railways with nostalgia and associate it with good economic fortunes.

Throughout Africa low volume passenger and general cargo railways have succumbed to competition from road transport. Road transport offers a flexible high-speed alternative, at rates lower than can be offered by low-volume rail services. Because of high fixed costs, rail can generally not compete with road at volumes below at least 2 Mtpa. To place this in perspective, the total cargo throughput at Freetown Port is slightly more than 1 Mtpa, the majority of which is consumed in the Freetown area. Passenger volumes from up-country are in the order of 150 per day each from Bo and Kenema.

For the time being, therefore, it would be more beneficial for the country to concentrate on the primary surface transport mode (road) and not divert traffic to a competing mode that has little objective prospect of even covering its operating expenses.

e. SUPPORTING KEY ECONOMIC SECTORS

It is a clear objective of PRSP-III to diversify the economic base of the country. Mining activity is projected to increase significantly, which requires all the more emphasis on other sectors to ensure that the diversification targets are achieved.

Apart from mining, the sectors of economic activity that have been identified as being suitable engines of inclusive growth in Sierra Leone over the next five years and beyond are agriculture, manufacturing, fisheries, and tourism. Oil and gas is a further sector with much potential, although exploration is still on-going.

AGRICULTURE SECTOR

Although agriculture is largely still subsistence-based, PRSP-III notes a significant increase in investment in larger-scale oil palm, sugar cane, rubber and fruit enterprises. The main road arterials addressed under project 7 above and 18 further on would ensure the long-distance mobility of farming inputs and crops. The "last-mile" roads providing access to the arterial system was therefore a focus area in

previous and current PRSPs. Since these “feeder” roads fulfil a commercial as well as a social access role they are addressed under the broader theme of “Securing Rural Access” (refer project 30 below).

MINING SECTOR

Similar to the agriculture sector, mining is also made up of tiers of sophistication, i.e. large-scale mining (non-precious and precious minerals), mechanised small-scale mines (mostly diamonds and gold) and artisanal production of precious minerals by large numbers of individual miners. Whereas smaller miners depend on public transport infrastructure, the large-scale producers have provided their own bulk transport solutions. Like agriculture, smaller mining operations’ transport needs are largely addressed by the layers of roads interventions (feeder, national and regional roads). The focus of the ITPSIP is therefore on resolving issues related to the bulk mining requirements.

15. CONSOLIDATE PARALLEL COMMODITY EVACUATION PLANS INTO SINGLE CORRIDOR FOR ECONOMY OF SCALE

After having successfully reactivated its mineral extractive industries Sierra Leone is readying for a growth phase with associated investments, including in supporting transport. The majority of the bulk mining outputs are exported via dedicated transport infrastructure constructed, operated and maintained by the mining companies themselves. As has been the case in other rapidly developing mining economies on the continent (Mozambique, Botswana, Liberia and Guinea) mining exports commence in an uncoordinated manner with export facilities created in parallel. Sierra Leone is at the cusp of the next wave of transport investments specifically in the iron ore sector. There is a risk that these will perpetuate the current pattern of duplicating systems and unnecessary redundancy, with unnecessary risks for the public and the environment. Mining export routes all over suggests that the mining companies and not the country are at the helm. There is also effectively no transport safety oversight of these facilities and operations.

A practical situation would be to consolidate the respective transport solutions into bulk resource corridors. A resource corridor is a single, consolidated export route with associated facilities used by a number of miners. The larger mining economies such as Australia, Brazil and South Africa all have consolidated bulk export corridors and facilities to which a diversity of miners have access to, and which allow smaller new mining entrants to benefit from scale and therefore lower barriers to entry. Such corridors are also being established in Liberia and Guinea and in the near future also in Botswana and Mozambique.

Consolidating what is at present parallel export systems will require of GoSL to establish a firm policy position in favour of consolidated corridors. Two such corridors are proposed for Sierra Leone, namely for iron ore corridor from Tonkolili passing by Marampa to ports at either Pepel (current) or Tagrin (future), and for rutile from Sierra Rutile Mine towards Nitti port. The iron ore corridor is the important and immediate focus. The three major miners are all planning new export capacity shortly. GoSL should take up a brokering role between the role players to ensure the consolidation of their respective transport solutions and planned near-term investments. To establish a reference point for the miners to work towards, Government will be required to take a more pro-active view on future export volumes, preferred routes (for rail) and sites (for staging yards and ports) and technical solutions.

There is a concern that the opportunity to pursue a consolidated ferrous corridor has passed. It is understood that none of the next generation investments has been committed to the point where these cannot be reconfigured to fit a consolidated corridor plan. Furthermore, one of the PRSP strategies is to review and amend mining laws, regulations and associated laws to make them as attractive as possible, ensuring a fair playing field and equitable distribution of gains between the Government of Sierra Leone and the mining companies.

TOURISM & FISHERIES SECTORS

For fisheries, PRSP-III envisions the improvement of the fish harbour complex in Freetown to effect transshipment, together with limited on-shore fish processing infrastructure for value-addition and export of fishery products. Outside of Freetown, it is the intention to identify potential harbour sites and bring them into full use so that fish exports currently siphoned off to neighbouring countries' ports can be exported directly from Sierra Leone.

For tourism, PRSP-III foresees an Ecotourism Policy and Action Plan, targeting five ecotourism sites. These sites are not identified, but would likely include the area south-east of Kenema (Gola Forest, Tiwai Island), around Makeni (Mamunta-Mayoso, Outamba-Kilimi) and the Sherbro River estuary. A key transport intervention is to lower the cost of transporting visitors to and from Lungi International Airport (as addressed under project 6).

16. UPGRADE SELECTED (STILL TO BE IDENTIFIED) SECONDARY AND FEEDER PORTS/JETTIES

The Agenda for Prosperity tasks the Ministry of Fisheries and Marine Resources to improve and expand the country's fishing ports so as to export more fish directly. Tourism is similarly a sector targeted to stimulate economic growth. Both fisheries and tourism are potential beneficiaries of opening up a next layer of national ports or jetties.

There are a number of smaller ports and jetties across Sierra Leone mostly in the lower reaches and estuaries of the larger rivers. They mostly serve a local function in that they provide access to rural communities and are staging posts for artisanal fishing. From a national perspective, they at best fulfil a feeder-type function. The responsibility for most of these ports/jetties is devolved to local authorities under the Local Government Act, although some are overseen by the SLPA.

In context of the national strategy the biggest potential lies in seawater ports which can provide a proper base for deep-water fishing, for shipment to/from Freetown, and for commercial sport fishing. There are two of these ports that could be considered for upgrading: Nitti/Gbangbatok and Bonthe/Sherbro. Bonthe/Sherbro has better existing facilities, but Gbangbatok may be better located for hinterland access. As an indication of its strategic location, Gbangbatok was used during the war to transport essential commodities to Kenema and Bo.

A study should be undertaken to investigate which one of these ports should be upgraded first. The actual development model should mirror what is taking place at the Lungi transfer project where the basic infrastructure investment to open up facility should be provided by GoSL. Thereafter a PPP model should be pursued for the operation and any additional capital investment, as well as the provision of shipping services.

As noted above, the rest of the feeder port/jetty network fulfils mostly a local function and therefore consists of quite basic infrastructure with minimal expense required. No capital investment in these facilities is provided for in this Strategy.

OIL & GAS SECTOR

Recent oil discoveries appear very promising and the PRSP anticipates that further exploration will lead to commercial production. GOSL has therefore adopted a pre-emptive stance in anticipation of petroleum production, which would include facilitating the development of the necessary supporting transport infrastructure.

As for fishing, it is not a transport mandate to establish an industry support base or complex. However, it could be reasonably expected that the ministry mandated with transport participate in identifying an optimum location for such a base within the configuration of the national transport system.

17. REVIEW SITING OPTIONS FOR A PORT AND SUPPORTING TRANSPORT REQUIREMENTS FOR PETROLEUM PRODUCTION

Recently oil exploration on the west coast of Africa has been extended to Sierra Leone. Specifically, oil discoveries are taking place in the Liberian Basin which extends roughly to opposite Sherbro Island. The extent of the country's hydrocarbon reserves is not yet known, and the commercial viability of future production must still be appraised. The production lead time is estimated at between five to seven years if the system is commercially viable. It is envisaged that the discovery would not lead to the development of domestic refining capacity, due to the lack of support services and infrastructure.

Offshore exploration and possible production will require landside logistical and services support. Specific demands from the national transport system include air transport services, marine infrastructure as well as access to the national road network. Air transport services should provide access to the offshore facilities, as well as connections to international air services. Supply and service vessels supporting offshore exploration and production require ports. The ports should be connected to the national road network to facilitate the flows of logistical goods.

The nature and extent of the transport demands are as yet unclear. It is possible that a port facility could be required close to the fields (Sulima) or it could be more practical to provide services from an existing (e.g. Bonthe) or more central location in the country (Freetown Port), or even beyond. Therefore, when more information on the size and recoverability of the resource becomes available, a transport demand requirement and siting study should be carried out. That would establish the transport requirements during the different phases of offshore hydrocarbon exploration and production. The siting review study should identify the most appropriate location for a port, nationally or regionally.

MANUFACTURING SECTOR

PRSP-III points out that industries are concentrated in and around Freetown with a few scattered in the provincial headquarter towns of Bo, Makeni and Kenema. The transport requirements for manufacturing are therefore addressed by especially the projects related to Freetown Port (projects 5 and 4) and the arterial road system referred to above. It is planned to identify manufacturing growth poles and corridors in selected parts of the country future, at which point the required supporting roads projects should be identified.

f. RAISING NATIONAL SERVICE LEVELS

18. REHABILITATE AND IMPROVE (CAPACITY AND UPGRADING) OTHER NATIONAL AND SECONDARY ROADS

The capacity of the national and secondary road network in the country is considered to be sufficient to serve the traffic demand over the short term. However, capacity constraints are expected over the medium and long term on some parts of the network, and an envisaged 545 km of national and secondary roads will have to see lane additions during these periods to ensure adequate service levels.

Some portions of the national and secondary road network are still unpaved (gravel road) despite its national connectivity function. To this end, the upgrade of only 126 km of roads are seen as an

immediate priority, and needs to be done in the short term. Additionally, the upgrade of 881 km of national and secondary roads needs to be completed over the medium and longer term.

There are also roughly 1 700 km of national and secondary roads that is currently in a poor condition. The rehabilitation and regravelling of these road sections should also be completed in the short term.

19. IMPLEMENT SUSTAINABLE NATIONAL ROADS MAINTENANCE PROGRAMME

The Road Maintenance Fund Administration (SLRMFA) is obliged by law to approve a core road programme for the sustainable maintenance of the primary and secondary roads managed by the Roads Authority (SLRA). It may further award funds to local authorities for the maintenance of feeder roads.

By the end of 2012, neither SLRA nor SLRMFA had in place a maintenance plan (“core road programme”) as anticipated in the SLRMFA Act. The national budget for 2013 provides for an amount of about USD 9 million for the RMFA, of which two thirds (USD 6 million) is earmarked for road maintenance (the remainder is for the administration of the RA and RMFA). These amounts are obtained from road user charges, mostly in the form of fuel levies.

A preliminary estimate of the maintenance requirement for the core road network shows a need in the order of USD 36 million per annum (including routine and periodic maintenance, but excluding rehabilitation which is funded from GoSL’s capital budget). If, as foreseen in the Feeder Roads Policy, feeder roads are allocated 20% of the maintenance budget, then a further USD 9 million should be added for feeder roads. It is clear that maintenance expenditure falls significantly short of this target. In the meantime, capital expenditure on roads (construction and rehabilitation) is budgeted at the amount of USD 72 million in 2013, increasing thereafter.

There is therefore a concern that neither a sustainable level of maintenance expenditure nor an appropriate balance between development and maintenance expenditure has been achieved. Maintenance must be placed on a structured footing. A roads asset management lifecycle approach must be applied. That implies that due emphasis should be placed on routine and periodic maintenance to avoid the so-called “build-collapse-rebuild” cycle.

MOFEP and MOTA must see to it that the two responsible agencies carry out their legal obligation under the RMFA Act. These ministries must also provide the agencies the necessary support in their dealings with other MDAs, specifically the Ministry of Local Government (regarding local councils’ role in managing feeder roads), SLRTA (responsible for collecting vehicle licensing and registration fees for the Road Maintenance Fund), Ministry of Trade and Industry (overseeing the oil marketing companies that collect fuel levies) and the National Revenue Authority.

20. IMPLEMENT ROAD ASSET PROTECTION PLAN

As in most lowly-regulated countries on the Continent, overloading is a pervasive problem in Sierra Leone, contributing to accelerated deterioration of road pavements and negating the gains made from the substantial ongoing investment in roads. There is only one functioning weighbridge at the Port of Freetown, although the SLRA has secured a further three mobile weighbridges which it plans to deploy along primary roads.

In 2005 (refer initiative 33) the SLRA was required to undertake a vehicle overload control study and prepare a comprehensive overload control strategy, programme and action plan. The requirement was to investigate the status quo of overloading control in the country and the ECOWAS region, assess the

institutional framework and review current legislation. A comprehensive overload control strategy would have been prepared and vehicle control rules updated and promulgated.

By 2012, the study had not been carried out and there was no legal framework for overload control in place. The Authority had some preliminary ideas on outsourcing the operation of weighbridges, with the SLRA and RTA jointly monitoring such operation.

A road asset protection plan is now long overdue, and its absence confirms a perception that the current new-build programme could lead to another cycle of build-collapse-rebuild.

21. IMPROVE FREETOWN PORT-LANDSIDE CONNECTIVITY

Intermodal connectivity between Freetown Port (the main marine end point serving Freetown and Sierra Leone) and the national road network is constrained. Port access roads on both the eastern and western sides are in a poor physical condition. Intersections are in poor condition or not surfaced with no signalling or turning lanes. Abandoned vehicles and trailers in access roads constrain flow. The lack of adequate parking for freight vehicles waiting to enter the port or the city of Freetown further causes road congestion. Also, access roads to Kissy Oil Terminal are unsurfaced, uneven and littered with abandoned vehicles and trailers.

Port access needs to be improved through the following interventions: surfacing, signalling and turning lanes on three intersections (Bai Burreh Road/Fourah Bay Road/College Road/Ross Road/Cline Street, Fourah Bay Road/Savage Square/Lower Savage Square, and Racecourse Road/ Cline Street); structural repair, repair of edge breaks and paving of the surface overlay of four access roads (Lower Savage Square, Racecourse Road from the eastern access to the intersection with Cline street, Cline Street, and Parsonage Road); and completion of the development of the freight vehicle holding area *en route* to the port terminal in the vicinity of Kissy Oil Terminal. Furthermore, the feasibility and siting of an inland container terminal should be investigated.

22. CONSTRUCT VALLEY ROAD (PART OF FREETOWN RING ROAD INITIATIVE) TO PROVIDE ALTERNATIVE ACCESS TO NATIONAL ROADS NETWORK

A Traffic Management Study conducted in 1995 under the Freetown Infrastructure Rehabilitation Unit (FIRP) investigated and made recommendations on addressing congestion in the city and to improve the limited number of inlet and outlet roads to the city. A “circular route” plan was drawn up, identifying an Outer and Inner ring of arterial roads. The two legs that link the urban roads system to the national system are the existing Grafton-Cline Town road and the planned Hill Station-Regent-Grafton road (so-called Valley road).

The capacity of the Grafton-Cline Town road is not sufficient to carry the current traffic levels to/from the centre of Freetown. The construction of the “Valley Road” that runs southeast from Hill Station to Grafton would be a priority to address this issue. Although it is a road in the urban area, it would fulfil an important national connectivity function.

g. IMPROVING URBAN MOBILITY

In parallel with the development of the ITPSIP a Strategic National Urban Transport Policy (SNUTP) and Integrated Mobility Plan for Freetown (IMPF) were prepared.

The policy sets the vision for urban transport in the country as “an efficient, accessible, safe and affordable transport system that minimises travel while ensuring sustainability, equity, poverty reduction and better quality of life for all citizens”. Urban transport would therefore focus on the

movement of people and goods by giving priority to public transport, goods transport, pedestrians and non-motorised transport while controlling the level of private transport use. It will include a network of safe, affordable and efficient bus services, supplemented by poda-podas, taxis and okadas where appropriate, with a high degree of private sector participation. Urban transport will also be characterised by clean, clear and well maintained roads and footpaths. Coordination between different modes will ensure that each mode can perform the tasks it does best within a well organised transport system. The public transport infrastructure will be user-friendly, there will be full compliance with traffic rules and it will aim for safety and mobility for all.

In the Freetown urban area, the practical application of the Policy requires eight initiatives to be carried out, one of which (initiative 21: Improve Freetown port-landside connectivity) is also of national importance and already addressed previously.

23. *INSTITUTIONAL CHANGES (URBAN TRANSPORT AUTHORITY)*

An autonomous Urban Transport Authority should be established to take responsibility for all aspects of planning and regulating urban transport in the Greater Freetown area. The Authority should be headed by a panel of representatives of all local authorities and councils within the Greater Freetown area, relevant government agencies, police, and transport operators' organisations and consumer groups, as well as relevant stakeholder organisations. If there is duplication in responsibilities between existing agencies it should be reallocated to the Transport Authority.

24. *IMPROVE PUBLIC TRANSPORT SERVICES*

Substantial improvements need to be made to the existing public transport system in Freetown, including the reorganisation of the current public transport industry; route and infrastructure improvements; the introduction of new, appropriate vehicle types; implementation of rational fares and an effective revenue control system; and the effective regulation of public transport services. Future planning should also consider the introduction of bus rapid transit services and other public transport modes.

25. *RESTRICT PRIVATE TRANSPORT USE*

Unless steps are taken to prevent private transport use, an increase in road capacity will inevitably result in an increase in traffic. The recommended improvements in public transport will provide an acceptable alternative to private transport. Physical and fiscal measures that can be implemented to restrict private transport use include: stricter parking controls, especially in the central area, retail, and residential locations; road user charges; ownership charges and taxes and the prohibition of certain types of vehicles in some streets at specific times. Behavioural changes may also be encouraged through education and publicity. Traffic management measures such as pedestrian or bus-only streets as well as traffic calming measures may also be designed to limit motorised traffic effectively.

26. *IMPROVE MANAGEMENT OF ROAD SPACE*

Improved management of the road system will be essential in order to optimise its capacity and improve traffic flow. Proposed measures include: an improved CBD network with one-way streets, linked traffic signals and dedicated, pedestrian/NMT streets as well as bus/public transport streets; introducing flexitime and staggering of work hours to spread out the peak hour demand; limit private motorised transport; traffic calming to reduce motorised traffic movements; the relocation of street traders; and a strengthened enforcement process. A coherent parking strategy also needs to be developed and implemented to limit road obstructions and government policies relating to traffic need to be updated. This should also address abandoned vehicles.

27. RELOCATION OF STREET TRADERS

Market traders consume a large amount of road space in Freetown, and some streets, that are important links in the road system, are almost impassable for motor traffic, causing unacceptably long delays. The street traders in Freetown therefore need to be relocated to more appropriate locations that are suitable for both traders and customers. By relocating traders to smaller local trading centres can reduce the amount of travel between residential areas and markets, and simplify the transport of market produce between wholesale and retail markets. This might, however, be a very sensitive political and land use issue and it is therefore recommended that a detailed study on the informal retail market in Freetown is undertaken first.

28. EFFECTIVE ENFORCEMENT OF TRAFFIC RULES AND REGULATIONS

There exists an urgent need to strengthen the enforcement capability, through the introduction of new regulations where necessary, restructuring of the enforcement agencies, deployment of additional resources, more intensive training for enforcement officers, and effective deterrent penalties. It may also require reviewing the salaries and conditions of police and other enforcement staff, to reduce the incentive for bribery and petty corruption. As a first step, it would be worthwhile to commission a review of traffic and related regulations, and the roles and organisation of the various enforcement agencies, in order to identify and remedy deficiencies and ambiguities in the regulations, and weaknesses in the institutions concerned.

29. ROAD NETWORK IMPROVEMENTS

There is a need for some road improvements in Freetown to eliminate existing traffic bottlenecks that would otherwise be a permanent impediment to mobility. The following road network improvements are proposed for further appraisal: Road rehabilitation of many city centre roads and roads in adjoining suburbs; the construction of a grade-separated junction in Cline Town; extension of the duelling of Bai Burreh Road; improvement of the Kissy Road and Fourah Bay Road corridors; weighbridges should also be installed on the main routes in Freetown, as well as in close proximity to the port entrance to protect the road from damage by truck overloading.

h. SECURING RURAL ACCESS

30. RESTORE CONDITION OF FEEDER ROADS

Sierra Leone possesses an extensive rural feeder road network. These roads are mostly local land-service roads, serving as collectors and distributors for the secondary and some primary roads. They also provide access to chiefdom centres, which are the most local level of administrative authority of government. In line with the broader decentralisation policy of government, the maintenance of these rural feeder roads has been devolved to local government under the Local Government Act. The development and expansion of the feeder road network is being pursued by local governments and various specific-interest MDAs under dedicated initiatives (including the Rural Infrastructure Development Project, EU-Funded Rural Feeder Roads Project, Rehabilitation and Community Based Poverty Reduction Project, Agricultural Sector Rehabilitation Project, and others).

Since the SLRMFA is responsible for funding the upkeep of these roads, the national transport Strategy focuses on the maintenance of the existing network. Roughly 1 577 km of roads is currently in a poor condition (according to the National Rural Feeder Roads Policy) and needs to be regaveled in the short term. In addition, 4 152 km of feeder roads will require ongoing maintenance and grading. The provision of machinery, equipment, and training to local councils is needed to accomplish this.

31. MONITOR AND PROCURE PUBLIC SERVICE OBLIGATIONS FOR NATIONAL BUS SERVICE

Road transport is presently the transport means of last resort for the majority of the population, and for long-distance travel within the country, the only available means of transport. The passenger transportation market is deregulated and there are some private bus and minibus operators plying long-distance routes. However, the publicly-owned Sierra Leone Road Transport Corporation (SLRTC) is the dominant carrier, and the only carrier on the quieter regional/district routes.

Long-distance passenger volumes are modest, with the busiest route (Freetown-Bo) carrying in the order of 100 000 passengers per annum, or about 150 passengers per day one way. This volume would not be enough to justify a higher uplift solution such as rail.

The SLRTC provides passenger services in and around Freetown, between Freetown and some of the district capitals, as well as between Freetown and Conakry. Revenue from the Freetown services is apparently used to cross-subsidise the loss-making up-country services. This situation should, however, be formalised. It is a national obligation to ensure at least a minimum access to all centres in the country. Where such a service is not commercially sustainable, it should be “purchased” by GoSL (via MOTA) as a formal Public Service Obligation (PSO).

Accordingly, the current route structure of SLRTC should be reviewed, routes classified according to their commercial sustainability and revenue generating capacity (refer initiative 41), and a PSO order placed. SLRTC should not have a sole mandate; rather, PSOs should be procured competitively to ensure the best value for money.

32. ASSESS ADDITIONAL PUBLIC SERVICE OBLIGATIONS REQUIREMENTS FOR LUNGI-FREETOWN CROSSING

GoSL/MOTA have promoted a multi-layered transfer system between Lungi Airport and Freetown which will be expanded further (refer initiative 6). This system caters largely for commercial traffic across the Freetown estuary.

The Government Wharf-Tagrin ferry service has until recently been the main means of crossing, providing for both mobility (commercial) and access (social) needs. It is served by the MV Bai Burreh, with a capacity of 65 vehicles and 250 passengers. There are also crossings by locally-constructed boats providing a rudimentary and sometimes unsafe service for the carriage of local passengers and goods.

As commercial traffic migrates to the higher-service transfer options, there is a risk that the backbone ferry service may deteriorate as revenues fall away. That would leave the local boats as default transport option. Although it is premature to identify a specific strategic initiative as safety net, MOTA should monitor the results of the airport transfer scheme on local traffic and possibly step in to secure a public service obligation – similar to the interim PSOs purchased from SLRTC.

B. ORGANISATION OF THE TRANSPORT SYSTEM

Whereas the previous part of the Strategy dealt with the actual provision of transport infrastructure and transportation services, this part addresses the manner in which the transport sector should be organised to facilitate achievement of such service objectives.

The Strategy aims to organise the sector so that potential conflicts of interest are housed apart. The main separation is between *service delivery* (provision infrastructure and transportation services) and sector *oversight* so that regulators and service providers are kept distinct. Within the oversight domain, policy-making, safety regulation and economic regulation should similarly be demarcated. Within service delivery, the provision of transport infrastructure and provision of transport services should

ideally be separated so that the public-good and often monopolistic nature of infrastructure not detract from the potential of commercial and private delivery of transport services.

TRANSPORT SERVICE DELIVERY

As noted above, service delivery firstly entails the provision of transport infrastructure and secondly transportation services.

a. STRENGTHEN PUBLIC INFRASTRUCTURE PROVIDERS

Since these are publicly-owned assets, the responsibility for managing transport infrastructure has been assigned to public agencies. The infrastructure agencies are generally better capacitated than the ministries they report to. Although the Strategy promotes that MOTA should lead the transport sector, the agencies will for the time-being continue to drive the sector and must be supported accordingly.

In some cases, where there is the potential for greater efficiency funded by user charges, these agencies have on-contracted specific facilities and obligations to the private sector. However, all of the infrastructure agencies have shortcomings, related to their own capacity to execute or to their ability to oversee concessionaires to whom they have delegated some of their functions.

33. REINVIGORATE REFORM OF THE ROADS AUTHORITY

After access to the country is in place via the main port and airport, the next layer of the transport system that affects citizens most directly is roads. It is the primary means of access and mobility. Roads furthermore take up a quarter of the national capital expenditure budget. The replacement value of the roads network is in the order of USD 2 billion.

An extensive plan was developed in 2005 to restructure the SLRA to deliver on its mandate (Action Plan for SLRA Restructuring). Apart from separating the existing Road Fund from the SLRA (refer initiative 43), the aim was to restructure the Authority to focus on its core responsibilities for technical planning and management of the road network, with works and other services contracted out to the private sector.

By 2012, many of the actions of the Plan had not been carried out. The SLRA was not yet the independent, professional organisation foreseen in the 2005 Plan. It does not operate under a performance management framework. The Authority's systems appear weak in general, including the financial and project management systems. Activities are not driven by procedures and programming. Given the responsibility of the SLRA to predict road condition and plan interventions accordingly, the feeble condition of the road asset management system (RAMS) is especially worrisome. Data on the system is not up-to-date, and it has low predictive ability. The effect is that planning is short-term, and project-focused, rather than a long-term focus on system optimisation. The organisational reform expected in 2005 has stalled, especially the commercialisation of the laboratory and the MSU, as well as the outsourcing of maintenance.

The Action Plan needs to be revived and a fresh commitment made to restructure the SLRA to be an efficient road asset manager. Transferring the Authority to MOTA (refer initiative 45) could provide new impetus, especially if tied into the sector-wide performance management approach promoted under initiative 48.

34. CONCLUDE PROCEDURES AGREEMENT BETWEEN SLRA AND RMFA TO FORMALISE AND OPERATIONALISE THEIR RELATIONSHIP

A key relationship on which the dynamics of the roads sector hinges is that between the SLRMFA and SLRA. This is where the roads maintenance purchasing activity takes place, and value for money is secured.

The SLRMFA-SLRA relationship was going to be formalised in a Procedures Agreement which would set out the nature and flows of information between the entities related to the roads development and maintenance plans, the Administration's evaluation of such plans, the procurement rules applicable, SLRA's reporting to the SLRMFA, the SLRMFA's confirmation of work done, payment for work carried out, and audit. The SLRMFA should focus on strategic and administrative oversight of road maintenance disbursements, but should not become technically involved in the oversight of road maintenance activities, or be responsible for the actual disbursement to contractors. These micro-level relationships with contractors should be handled by the SLRA.

This Agreement was not yet in place by the end of 2012, and must be concluded speedily. By its nature it will contain contentious issues which the two agencies may not be able to resolve bipartisanly, and it will therefore be necessary for MOFEP and MOTA to appoint an interlocutor – both to facilitate the conclusion of the Agreement as well as to assist with its implementation. Furthermore, the Agreement will have various technical appendices for which the agencies will require support. A technical assistance programme has recently commenced which will lay the groundwork.

35. POSITION AIRPORTS AUTHORITY AS AIRPORT PORTFOLIO LANDLORD

Lungi and Hastings airports already legally pertain to the SLAA. In future, other domestic airports will incrementally be opened up and air services reinstated (refer initiatives 12 and 13). These airports currently resort under MOWHI. To have a coordinated and systematic approach to the revival of the domestic aviation system, and to benefit from lessons learnt and replication, the domestic airports should be reallocated from MOWHI and added to the portfolio of SLAA under MOTA.

The private involvement in the development and operation of airport infrastructure is a well-established trend in both developed and developing countries. Long-term concessions to private corporations to oversee all or part of the airport's operations are frequent, with governments often taking on a minority shareholding (with less risk) in the project.

In the case of Lungi, a number of services have already been outsourced under commercial operations (catering and lounges, security services, baggage handling, fuelling services, aircraft repairs and maintenance, and airline catering services), with SLAA increasingly playing the role of landlord (as opposed to operator). Some potential for further private involvement still exists, including estate services, airfield management, and car parking. Although the traffic volume at Lungi is sufficient to carry its ongoing costs, it is too low for the full-scaled concessioning of the airport for the foreseeable future. This conclusion therefore augurs poorly for a new airport if its capital cost must be recovered from users.

In addition, further private sector involvement should be sought for the redevelopment and operation of the other domestic airports, including Hastings. These options are set out under initiative 40. They entail the portfolio landlord (SLAA) contracting out airport-related responsibilities to private sector airport operators.

36. POSITION PORTS AUTHORITY AS PORT ASSET HOLDING COMPANY, CONCEDANTE AND OPERATOR OF LAST RESORT

The SLPA was historically responsible for the operations and infrastructure development of all ports and jetties in Sierra Leone. However, this role as infrastructure custodian has been somewhat eroded. A number of mining-related port developments has taken place around the SLPA, the management of rural harbours and jetties has been devolved to local government, and the maritime safety regulator (SLMA) has taken it upon itself to develop some jetties (which is in conflict with its regulatory mandate). The most significant impact on the traditional mandate of the SLPA has been the concessioning of the container terminal at Freetown Port.

Presently, only the ports of Freetown and Sherbro legally fall within the SLPA's mandate. However, as the national transport system grows, it is expected that other small but nationally important ports also come under its responsibility. These would not include the specialised commodity export ports which form part of a dedicated corridor rather than the national public transport system. But it would include other ports and jetties that are not merely local staging posts, but provide a longer-distance national service. This Strategy promotes modest investments in the next layers of national transport infrastructure apart from roads, specifically domestic airports and ports. A node that would qualify for both is the area of Gbangbatok which, from a maritime perspective, is not that accessible by road and could attract both national marine freight and tourism traffic.

The SLPA's role at Freetown Port is shifting from operator to landlord, i.e. owning and planning the port but not operating it. This is in line with international trends and exposes port operations to competition, private sector involvement and (mostly) increased efficiency. However, SLPA is not fully equipped to oversee the concession at the container terminal, or any other future outsourcing arrangement (such as Kissy oil terminal). It is also not pro-actively planning the port and its environs as evidenced by the current encroachment of commercial interests (cement) and the lack of proper container clearing facility (container depot).

The role of the SLPA needs to be stated more clearly, and the organisation should be capacitated to deliver on this redefined mandate. The refined role should entail being the landlord of the Freetown Port, contracting out to and overseeing the current (and any future proposed) private operators, and being the port operator of last resort for small but nationally important ports. In this respect the SLPA should be the only organisation responsible for the development of new nationally strategic ports. Where the commercial potential exists, SLPA should also retreat to the role of landlord overseeing contracted-out operations. The SLMA should focus on its role as safety regulator and not develop or operate ports or jetties.

b. ENCOURAGE PRIVATE SECTOR CONTRACTING

Although the public transport infrastructure agencies will remain prominent, there are various opportunities to encourage private sector participation in the ownership and operation of transport infrastructure and services.

37. UNBUNDLE (VERTICAL AND HORIZONTAL) CORRIDOR OWNERSHIP AND OPERATION FOR OPEN ACCESS AND LOWER BARRIER TO ENTRY FOR NEW MINERS

The Strategy supports the consolidation of otherwise duplicative bulk mining export facilities into consolidated corridors that realise economies of scale and are open to the next generation of mining investors.

The core principle is open access, i.e. that existing and new miners can utilise the facilities under the same rules and prices, irrespective of where ownership or operation of the facilities lie. There are basically three arrangements to achieve open access: a consolidated approach where infrastructure and operations belong and are operated by one company with others allowed onto it; vertically unbundling infrastructure and transportation operations into two separate entities; or further horizontally unbundling transportation operations so that more than one entity carries on transportation operations. Horizontal unbundling between infrastructures (rail vs. port) is possible, but not practically within an infrastructure.

The appropriate way forward would be to provide a platform for open access and competition, even if all possibilities are not immediately available. There should therefore be at least a conceptual separation of infrastructure and transportation operations, for example in the way contracts are drafted and tariffs established, with each properly ring-fenced financially. A code of access to and operation on the infrastructure must be prepared for multi-user operations. Infrastructure and operations should be bid out separately, even if the same entity eventually operates both. Ownership should not be restricted only to the miners.

The practical result of this approach is likely to be a single rail infrastructure developer and maintainer, with rail operational rights initially vesting in the infrastructure provider but later-on in more arms-length rail transportation operators. The infrastructure provider would oversee the operation of the corridor, but regulatory oversight is needed to ensure that there is no discrimination against any one transport service provider. Corridor safety oversight should also be publicly provided. Opportunities exist for direct governmental involvement (or shareholding) in the infrastructure provision part of this arrangement.

38. INVESTIGATE OPPORTUNITIES FOR LOCAL PARTICIPATION IN THE BULK CORRIDOR BASED ON UNBUNDLING

The Agenda for Prosperity requires that the strategic principles to be applied to the natural resources sector include that concessions must be competitive and available to all, with careful attention not to inadvertently discriminate against local enterprises. Incentives and measures must be designed to encourage local participation in the value chain for each subsector, but not at the expense of long-term efficiency and competitiveness. Transparency and accountability issues should be the foundation on which management of the natural resources is built. The creation of consolidated export corridors should accordingly incorporate these principles.

One of the main drivers for increased local or public involvement in these transactions is to ensure that host countries optimally benefit from the resource extraction projects developed in their jurisdictions. Taking an equity position in the development of the supporting infrastructure (including transport infrastructure) and transportation services can serve to improve the local economic development impact of these projects.

A study should be undertaken to investigate the strategies for increasing the share of GoSL and other local participants in the development and operation of mining transport corridors. A case study to be considered is Simandou (Guinea). There, mining activities were separated from the principal infrastructure activities (railway and port), non-miner shareholding was allowed in the infrastructure, and the government retained the right to take up a minority shareholding through a strategic partner. Although unbundling of infrastructure and operations should not take place at the expense of economies of scale, smaller units of business will lower the threshold for local shareholding and other forms of participation.

39. REHABILITATE OR REPLACE KISSY OIL TERMINAL UNDER CONCESSION

[Note: this contract may already be in place? But possibly only for bio-ethanol and not also other petroleum products?]

Under initiative 5 it is pointed out that Kissy Oil Terminal will require upgrading. The terminal is currently in a fairly bad state of repair, and will also have to be expanded together with the supporting infrastructure (pumps and pipelines).

The terminal handles an essential product that is traded in a commercial environment. Although the terminal could be deemed a national “strategic” asset, there is no other reason in principle why this upgrade and further development cannot be contracted out.

The arrangement would most likely be a concession of the BOOT (build-own-operate-transfer) type, contracted for a long enough period for the developer to recover its investment (at least 15 years). The oil terminal concession could be combined with the existing container terminal concession, but no large-scale synergies are foreseen between the two operations. The oil terminal should therefore be tendered separately, with the incumbent container concessionaire bidding on the same basis as others.

The SLPA as the port landlord will oversee the concession, subject to being capacitated as per intervention 36.

40. ENCOURAGE PRIVATE SECTOR ROLE IN DOMESTIC AVIATION

The domestic aviation system will primarily provide improved commercial mobility in the country, and it would be reasonably expected that these services should also be provided on a private, commercial basis.

In the case of domestic airports, the location of Hastings makes it a good candidate for securing secondary revenue from a concession through the development of ancillary property. Hastings could be contracted out following a formal PPP concession approach. Private interest has already been shown to invest in and operate Hastings.

The approach at other airfields should entail a notification by SLAA of the intention to seek private involvement at these facilities, followed by direct negotiations with those providers that express interest. Depending on degree of investment, a shorter-term management contract through to a longer-term concession could be considered on a case-by-case basis. It is possible that a modest complementary investment will be required from GoSL to make these airfields sufficiently attractive commercially. The focus here would be to have the largest number of regional airfields operational at the lowest possible expense to government.

As regards domestic aviation services, GoSL has already almost completely untied itself from the provision of transportation services, and this principle should also apply to air services. Domestic air services are likely to be provided by special interest groups first (mining, tourism and general commerce) before settling into a scheduled pattern provided by independent third parties. MOTA may consider licencing air service operators for safety only first. When route structures and schedules require to become more formalised, MOTA may consider issuing exclusive route licences for a period to improve the attractiveness of the service to private investors.

C. DEVELOP USER CHARGING

One of the key prerequisites for private sector participation is that the risk assumed by the private sector party will be fairly recompensed by the revenues earned. For there to be revenue, there must be a clear understanding of the expected relative contributions of government and users.

41. DEVELOP TRANSPORT PRICING POLICY TO ENSURE CONSISTENCY ACROSS COMPETING MODES

There are a number of instances where users pay for transport services. In Sierra Leone, users already pay for transportation services (i.e. carriage of goods and people) although in the case of the SLRTC it receives a government subsidy in the form of support for the purchase of buses. For transport infrastructure, container traffic is charged at the port, road users contribute towards roads maintenance cost via fuel levies and licence fees, and airport users pay for certain services (e.g. security).

There is not, however, a systematic approach in place regarding user charging across the transport modes. The implications are that the playing field between modes is uneven, but more importantly, that potential investors and service providers do not have a clear understanding of the revenue earning potential of their transport investments.

There should be a systematic approach to assessing cost responsibility across the transport modes. Such a costing and cost recovery policy would cover the valuation of the transport assets, the categorisation of assets into public and private purposes and the associated assessment of cost responsibility, the extent to which capital and recurrent costs should be recovered from users, the extent to which public funds could be used to seed private investment (e.g. in a domestic airport), the rules for subsidisation between higher-earning and lower-earning assets, and related topics.

A practical consequence of the absence of such a cost recovery policy is the shortage of funding for road maintenance as discussed under initiative 0. To demonstrate the cross-modal impact of charging, increasing road user charges could have a knock-on stimulus for coastal marine transport (initiative 16) or even domestic aviation (initiative 12). Tolling sections of the road network (initiative 42) would increase other modes' attractiveness still further.

The cost recovery policy should be overseen by MOTTA and its agents such as the SLPA and SLAA where functions have been contracted out. In the case of roads, the SLRMFA – although not specifically a tariff regulator – in effect fulfils this role by trading off road user requirements with the affordability of road user charges. In line with international practice, the SLRMFA reports not to MOTTA but to the Ministry of Finance and Economic Planning (MOFEP).

42. MONITOR POTENTIAL TOLLING OF SOME ROADS IN THE WESTERN AREA

Road development in Sierra Leone is currently funded either out of the fiscus, or (more typically) by way of Donor grants. However, in line with international best practice, the transport sector should increasingly move towards solutions with greater private sector involvement, implying also increased funding from road user fees. Whereas road maintenance is often funded from general user fees, if the cost of capital expenditure is recovered from users this is usually by means of a more direct toll. Tolling is only feasible where traffic levels are fairly high.

The Sierra Leonean road network practically has no road sections that will currently allow for sustainable (unsupported) toll roads in the short term. This situation should, however, change over the next five to ten years (up to 2022) with the primary roads leading out of Freetown projected to start generating traffic volumes in the target band. At that time the introduction of PPP toll roads can be considered for a few links in the outskirts of Freetown, including the A1 from Wallace Bridge to PK Oil Mill, the A20 from Cline Town to PK Oil Mill and the A3 from Waterloo towards Guinea.

Transaction advisors should be appointed to conduct specific PPP feasibility studies to investigate the feasibility of tolling once the roads reach a traffic level above 5 000 ADT (average daily traffic).

43. COMPLETE OPERATIONALISATION OF RMFA

The SLRMFA was legally divorced from the SLRA in 2010, putting into effect a plan that had been in place since at least 2005. Separating the road management (SLRA) and road purchasing and funding (SLRMFA) functions is consistent with good international practice.

Like the plan for the SLRA (refer initiative 33), an Action Plan for Road Maintenance Fund Restructuring was prepared in 2005. It was foreseen that the RMFA would be divorced from the SLRA by 2006, but the RMFA was finally created by an Act of Parliament (The Road Maintenance Fund Administration Act, 2010) in April 2010, with the organisation commencing work at the end of 2011.

The main legal obligation of the SLRMFA is to manage the road fund sustainably, i.e. balance the contributions of road users (mostly fuel levies) and the maintenance requirements of the core (primary and secondary) road network. The RMFA's internal systems and procedures, fund collection arrangements and agreements with the SLRA (refer initiative 34) were not yet in place towards the end of 2012. The SLRMFA must be the driver of performance improvement in the roads sector, but neither the maintenance funding requirement nor the ability of road users to pay for it is yet well understood (refer initiative 0).

It is crucial for the preservation of the roads network that the RMFA be operationalised in the manner contemplated in the 2005 Action Plan. A technical assistance package to the Administration is now underway which would improve its situation. However, it is important that MOFEP and MOTA actively monitor the conclusion of the remaining activities on the Plan. These include the day-to-day arrangements with SLRA related to certification of work performed, periodic transfer of funds for payment to contractors, as well as the more strategic interaction around a sustainable road maintenance plan (initiative 0).

TRANSPORT SECTOR OVERSIGHT

Many of the sector roles originally vested in the MOTA have been devolved to infrastructure agencies and safety regulators – following the practice applied internationally. The remaining issues are not so much structural as what they relate to strengthening the relevant MDAs and resolving the relationships between them.

The key principle is that a single ministry (MOTA) must be responsible for policy-making and performance management in the sector. The other role players must be tied to MOTA via performance agreements, licences and other legal instruments, so that MOTA can properly steer and oversee the transport sector, and equally be held accountable for the performance of the sector.

d. RESOLVE OVERLAPPING AND CONFLICTING ORGANISATIONAL MANDATES

In the transport sector there are a number of real or perceived cases of organisations' mandates not being clearly defined in law, so that the boundaries of MDAs' responsibilities are not always clear to those involved. There are also some instances where roles are indeed clearly defined but should be considered to be reallocated and reorganised between the MDAs.

44. REASSIGN OWNERSHIP OF TRANSPORT INFRASTRUCTURE AGENCIES FROM NCP TO MOTA

Possibly the major issue in the structure and management of the sector is the role of the National Commission for Privatisation (NCP). Although a *transport* strategy cannot address the mandate of the NCP in general, it is appropriate to show what the Commission's role could be in the transport sector.

The NCP was established shortly after the civil war to fast track the reform of state-owned enterprises. Its dual mandate is to lead the privatisation and corporatisation of nominated state-owned enterprises and agencies, and to remove the interference in the management of these entities from line Ministries. In the transport sector, the entities originally assigned to the NCP were the SLRTC, SNA, SLAA, SLPA, SLNSC and SLRA, although the SLRA was recently re-assigned to MOWHI.

The NCP therefore has the three distinct roles of divestor, divestment process manager and owner of non-divested enterprises. Whereas in the early 2000s the outright divestiture was a generally-accepted policy option, the international trend has shifted towards more nuanced forms of private participation under the banner of Public-Private Partnerships (PPPs). The formation of a PPP Unit is imminent and it will then assume the role of managing divestiture.

Although some countries house state-owned enterprises under a non-sectoral ministry of public enterprises, specialist public agencies such as transport infrastructure managers (SLAA, SLPA and SLRA in Sierra Leone) always report to the relevant line ministry. That ministry therefore fulfils the role of "owner" and by extension the decision maker on matters of divestiture. Reassigning supervision of the public transport infrastructure managers to MOTA would reinstate the chain of command in the sector. Infrastructure agencies would therefore be correctly located alongside the safety and licensing agencies, reporting as line function to MOTA and subject to the performance management approach of MOTA.

As regards the service delivery SOEs (SLRTC, SNA, SLNSC), only SLRTC is functional. It will continue to play the role of transportation service provider "of last resort" as discussed under initiative 31 previously. MOTA's relationship with SLRTC would be via safety licences (driver, vehicle and operations permits) and by purchasing any required Public Service Obligations (PSOs) from SLRTC. Under the general policy principle that transportation services should be provided commercially and privately, it is expected that ownership of SLRTC would remain with NCP or its successor until SLRTC is fully privatised.

This initiative of reallocating entities to MOTA must, however, only take place once the restructuring and capacitation of MOTA has developed some momentum (refer initiative 47 below). GOSL could provide staff-function support to ensure that these agencies perform in terms of proper internal corporate governance, for example through the Public Sector Reform Unit (PSRU) or the residual NCP.

45. REASSIGN SUPERVISION OF SLRA FROM MOWHI TO MOTA

A further area where MOTA is not fully at the helm of the transport sector is the management of the national road network. Roads and road transportation will remain the backbone of the national transport system, but the roads management agent does not report to the ministry responsible for transport.

The supervision of the SLRA has recently been assigned from the NCP back to MOWHI, where it resided prior to the formation of the NCP. MOWHI's role appears to be a historical legacy of all technical skills residing in the public sector, and all engineering and related skills in turn allocated to a ministry or department of works. Roads management, although dependent on roads engineering skills, has become a discipline of planning and asset management. In many countries that underwent sector reforms recently, the roads agency reports to a Minister that oversees transport as a whole. Roads

reporting to a ministry of works may have been appropriate when the public service itself constructed roads, but has become outdated now where transport needs to be planned and managed in an integrated manner.

46. RESOLVE RESPECTIVE ROLES OF MOTA AND MMMR REGARDING MINING TRANSPORT

The Agenda for Prosperity notes that although the private sector will undertake the bulk of infrastructural investment in the mining domain, it is expected of GOSL to regulate this effectively by ensuring minimal environmental degradation and minimal negative effects on surrounding societies.

The existing and planned bulk commodity export facilities fall under a dispensation administered by the Ministry of Mines and Mineral Resources (MMMR). These facilities are not integrated and do not achieve economies of scale as pointed out under initiative 15, and are not explicitly overseen from a safety and public impact perspective by MOTA.

There is therefore a need to clarify the division of labour between the MMMR and MOTA with regard to transport planning and regulation. The mining export corridors should be coordinated with the other national transport networks. The mining transport facilities, equipment, personnel and operations should be brought under the transport safety oversight (i.e. permitting requirements) that applies to all other sectors of the economy. MOTA should furthermore have proper insight into the Operational Mining Regulations currently in their final stage of preparation.

e. IMPROVE SECTOR GOVERNANCE

The chain of command in the transport sector culminates with MOTA. The Ministry is presently is under-capacitated and this Strategy promotes consolidating even more roles and responsibilities under it.

47. RESTRUCTURE AND CAPACITATE MOTA

The Agenda for Prosperity acknowledges that inadequate capacity building to support and facilitate the implementation of PRSP-II affected sustainable service delivery negatively. In the case of the transport sector, the supervising ministry is MOTA. Its role should be confined to the “oversight” domain, and specifically the functions of policy making and the setting and performance management of objectives for the sector. Following the pattern that is already well established in the country, the safety regulatory functions and service delivery should continue to reside outside the Ministry proper in arm’s-length agencies. The market entry and economic regulatory functions are likely to reside within the Ministry for the time-being.

MOTA presently has very limited technical capacity to guide or oversee the sector. Its expertise is limited to two “project” offices – the Airport Transfer Project and the Coordination and Monitoring Unit (CMU). The need to create a technical or professional cadre within the Ministry is generally acknowledged.

It is proposed to organise the Ministry around its core functions of policy and planning, transport safety, transport infrastructure and transportation services, together with special projects.

The Transport Policy and Planning Office would be responsible to set the tone for the sector by making policy and setting the planning framework. Two “purchasing” offices (Infrastructure and Services) would operationalise the policy and plan by contracting in public transport infrastructure managers (SLRA, SLPA and SLCAA), and transportation service providers for PSOs not naturally undertaken by the private sector. The Transport Infrastructure Office would, amongst others, ensure that the cost

recovery policy (refer initiative 41) is adhered to, possibly by regulating or approving the respective tariffs. The Transportation Services Office would also issue market entry rights (licences), such as air service licences. Dedicated Project Offices would be created for large, multi-modal and/or integrated infrastructure-services projects that need to be moved forward (e.g. the consolidated mining corridor). Safety regulation would continue to be carried out by arm's length safety regulators (SLMA, SLCAA, SLRTA and SLRSC in future), housed apart from the planning/policy and purchasing offices to ensure that commercial considerations do not compromise safety standards. These agencies will fall under the oversight of the Transport Safety Office. That office will also be responsible for ensuring that accident investigations, search and rescue, meteorology and other cross-cutting transport safety issues be properly assigned and managed.

An area that is not presently covered by either a public infrastructure agency or a safety regulator is rail. Although this Strategy does not foresee the creation of a national railway in the medium term, as a minimum, MOTA should have the ability to sensibly advise GoSL on the implications of railways in the mining domain. This would require the creation of a rail "desk" under the Transport Infrastructure Office.

Care must be taken not to design an overambitious organisation that cannot be resourced effectively. It is proposed that the focus should be on developing a core team which would work across the policy, safety, infrastructure and transport disciplines at first. To make MOTA an attractive career opportunity, it may be require employing the required staff under a separate project office which can be financially supported from outside GoSL's general budget.

48. ENHANCE SECTORAL PERFORMANCE TRACKING AND MANAGEMENT

The Agenda for Prosperity recognises that the required monitoring and implementation framework for the Agenda for Change was never fully developed, and evaluating progress suffered accordingly. The transport sector reflects this situation. Although there is a performance agreement between the Minister and the President, this does not cascade into formalised requirements by MOTA of its agencies and other sector role players. The performance measures that are tracked are fairly *ad hoc* and not specifically related to a larger transport objective or plan. Likewise, the collection of transport statistics in general covers very basic transport production figures only.

In future, there should be a formalised structure of performance and reporting agreements. The overarching agreement between the Minister and the President should reflect the agreed Strategy for the transport sector, focusing on a selection of key performance areas. That agreement should be supported by more detailed pillar agreements in the services and safety domains which support the achievement of the Minister's commitments.

The performance measures tracked in the agreements will be of two broad types. "Business" performance measures would track the proper management and financial health of the reporting entities. "Transport" measures would cover the sequence of transport resources (inputs), which deliver transport products (outputs) so that transport users' experience (outcomes) is improved. Input and output data is more measurable than outcome measures, and most of it already exists in some form or another (even if not reported widely). Outcome measures are more abstract and require deeper interpretation, and would therefore require a more sophisticated tracking system. It is therefore proposed that a transport statistics programme should firstly focus on improving the transport input and output data. Whereas transport data is currently captured purely per mode, a sector-wide statistics system should emphasise the similarities and cross-modal implications of transport.

f. CREATE AND SUPPORT SAFETY AGENCIES

The transport safety agencies provide independent oversight of equipment, key staff, operations and other safety-related criteria, often in terms of international (ICAO, IMO) or regional (ECOWAS, MRU) standards. Safety oversight should be carried out impartially, detached from the transport ministry's plans for the sector, or the awarding of commercial transport rights.

Although the functions are practically the same, safety regulation is specialised per transport mode. In Sierra Leone, safety agencies have been created for aviation (SLCAA), maritime transport (SLMA) and road vehicles and drivers (SLRTA). There is not presently an agency overseeing road infrastructure safety and road safety in general. Although a stand-alone rail safety entity is not required, it is proposed that a basic competence in this regard be housed in MOTA (refer initiative 47).

49. SUPPORT ESTABLISHMENT OF A COMMISSION FOCUSED ON ROAD SAFETY (SLRSC)

The need for a road safety agency was identified in the 2011 *Review of Road Safety Management Capacity in Sierra Leone*, but the proposed SLRSC has not yet been established. Its mandate should specifically include roads infrastructure safety as well, e.g. enforcing road infrastructure safety management procedures, carrying out road safety audits, and effecting sanctions on SLRA. Road safety councils are often non-permanent committees. It may be appropriate for the SLRSC to start its life in this manner, but if it has a road infrastructure safety remit (apart from driver/driving safety promotion) it will require more substantial and permanent resourcing.

The SLRSC should be further supported by a formal national road safety policy – a draft of which has been prepared but not yet adopted.

50. SUPPORT TO TRANSPORT SAFETY REGULATORS

The oversight of transport safety in Sierra Leone has been delegated from MoTA to a number of sectoral agencies. These agencies are all constrained in some way or another, related to their strategic management and resourcing. The SLRTA enforces driver and vehicle safety standards but does so in the absence of a broader road safety strategy. The SLCAA is apparently still being staffed by expatriates. The SLMA is resourced with qualified but inexperienced staff. Although all the agencies can in principle raise charges and levies from the users of the respective transport modes, they rely on GoSL for funding in the last resort.

As part of the Strategy, a “health check” should be carried out on the transport safety regulators. This would include the status and relevance of their standards and operating procedures for certification and investigations; the relevance of staff skills, training and experience; the condition and availability of information systems and equipment; and the adequacy of funding specifically confirming that users make an appropriate contribute and that the agencies are not over-reliant on GoSL. A support programme should be shaped for each agency, including considering the appropriate use of technical assistance.



Action and Investment Plan

ACTION AND INVESTMENT PLAN

The Action and Investment Plan sets out in more detail the interventions making up the Strategy. These are timed, resourced and allocated to the appropriate champions. The interventions are priced at an order-size level of accuracy. It is foreseen that the respective implementing agencies will prepare a more precise budget closer to implementation.

The Plan provides for an allocation of cost responsibility between public and private entities. Public funds are donor grants or appropriations from the national budget. Private funds are as committed by private sector investors (either equity or commercial debt). Where user charging is possible, this is indicated together with the extent of charging (operations, maintenance and/or capital investment).

The Plan is organised by major stakeholder in the form of a “checklist” for that entity. This approach differs from the Strategy where interventions are arranged in a more integrated manner.

[AIP table to be inserted here]



Strategy Map

STRATEGY MAP

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