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Transport Policy Study

Policy Framework and Preliminary Action Plan 2016-2025

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This report was prepared by a team of consultants, including John Arnold, Charles Melhuish, Mamuka Chantladze and George Doborjginidze. Fergal Trace and Ko Sakamoto (ADB-CWRD), Amal Kumaradge (consultant) and Asif Faiz (consultant) provided both guidance and critical inputs. Staff of the ministries of Economy and Sustainable Development, and Regional Development and Infrastructure of Georgia, Georgian Railways, port operators, shipping companies and logistics companies provided information and data for the assessment.

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Disclaimer

Abbreviations

2PLs	Second party logistics service providers
3PLs	Third party logistics service providers
ASA	Air Service Agreement
ATM/ANS	Air Traffic Management and Air Navigation Services
BOT	Build-Operate-Transfer (concession)
BTC	Baku-Tbilisi-Ceyhan pipeline
CAA-A	Common Aviation Area Agreement
CMI	Corridor management initiative
DWT	Deadweight ton
EDI	Electronic Data Interchange
EU-AA	European Union Association Agreement
GCAA	Georgian Civil Aviation Agency
GDP	Gross Domestic Product
GhG	Greenhouse gases
GIS	Geographic information system
GOGC	Georgia Oil and Gas Corporation
GR	Georgian Railway
HDM 4	Highway Design Model 4
ICAO	International Civil Aviation Organization
ICD	Inland container depot
ICT	Information and communication technology
IMO	International Maritime Organization
KPIs	Key performance indicators
LSP	Logistics service provider
LTA	Land Transport Agency
MIA	Ministry of Internal Affairs
MOESD	Ministry of Economy and Sustainable Development
MRDI	Ministry of Regional Development and Infrastructure
MTA	Maritime Transport Agency
NSGP	North-South Caucasus Gas
ODCY	Off-dock container yard
PPP	Public-private partnership
PSO	Public Service Obligation
SCM	Supply chain management
SCP	South Caucasus Pipeline
SCPX	South Caucasus Pipeline Expansion Project
TANAP	Trans Anatolian Pipeline
TAP	Trans Adriatic Pipeline
TAV	TAV Havalimanları Holding A.Ş
TCC	Trans Caucasus Corridor
TCP	Trans Caspian Pipeline
TEN	Trans-European Network
TPD	Transport Policy Department
TRACECA	Transport Corridor Europe-Caucasus-Asia
VAS	Value-added services
VTMS	Vessel traffic management system
WCO	World Customs Organization

Table of Content

I. Transport Policy

The role of transport in the economy is summarized in the following vision statement for the sector:

> Georgia aims to become a regional distribution hub and tourism destination and producer of high value agricultural products. The transport sector will contribute to this goal by supporting trade-based economic growth, enhancing social mobility and achieving environmental sustainability.

The initiatives in support of economic liberalization have created the environment to achieve this vision. Georgia now confronts the same challenges as other small entrepreneurial nations. Strong leadership is required to develop an economy based on value-added processing and services.

The transport policy presented in this chapter is based on three basic concepts. First, transport is a service and the demand for this service is derived from general economic activity. The availability and quality of this service can facilitate economic activity but it cannot create this activity.[1] Second, transport and logistics are complementary and increasingly integrated. Transport services were traditionally defined in terms of movements of goods and people by a single mode. Over the last few decades, the definition has changed to the movement between origin and destination by one or more modes. For freight transport, this movement includes the logistics services used to integrate the modes and to add value to the goods while in transit.[2] The policy presented below adopts this broader definition of transport. Third, transport policy refers to public policy. The private sector, which has a substantial role in the provision of transport and logistics services, has a separate set of commercial policies. Public policy can influence the latter through regulation and public investment.

Policy Framework

Transport policy should be consistent with and supportive of national economic and social goals. It should support economic development through improvement in delivery of goods and services and the mobility of the public. The framework used to develop this policy is shown in Figure 1. The goals and policies for the transport sector are derived from national economic goals. They, in turn, provide a basis for the formulation of the goals and policies for specific transport modes. The respective roles of the public and private sectors in providing transport and logistics services and infrastructure determine how public policy will be implemented.

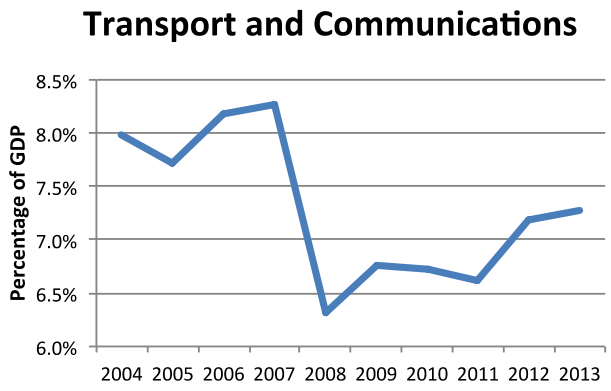
[1] In transport planning, there is a distinction between generated and diverted demand, where the latter refers to a shift in traffic to another mode or route. The former term refers to new traffic which is potential demand that has been enabled through new transport options.

[2] Michael Porter in the groundbreaking "Competitive Advantage" published in 1985 combined the two into inbound and outbound logistics in his analysis of value chains.

Figure 1: Policy Framework

The reported contribution of the transport sector to Gross Domestic Product (GDP) is shown in Figure 2. This figure is misleading for various reasons. Because of the importance of trade, especially transit trade, the international financial crisis had a significant impact on transport's contribution to GDP. More importantly, the data used in this calculation are collected from large enterprises with the result that a substantial portion of transport activity is not recorded. Also data for logistics services is not included. Most important, the principal contribution of transport and logistics to the economy is imbedded in the value-added to the goods and people using these services. This creates the paradox in which an increase in this measure may indicate either a reduction in the efficiency of the sector or an increase in the contribution of this sector to the value-added to goods that are being transported.

Figure 2: Contribution to GDP



Source: GeoStat

Economic Goals for the Transport Sector

The economic goals of Georgia are described in "Georgia 2020" which sets out the Government's medium-term socioeconomic development strategy. The primary emphasis of the economic plan is based

on three pillars: private sector competitiveness, human capital development and access to finance.[3] The attainment of each of these pillars is underpinned by various actions designed to remove the major barriers which impede the growth of the economy.

Increased competitiveness will contribute to growth in export volumes and diversify trade.[4] Measures to increase competitiveness include development of integrated transport and logistics services and infrastructure. It is also important to balance this goal against social needs, in particular the right to access public services whether these are provided by the public or private sector.

While there are a large number of implicit economic goals, the most relevant for the transport and logistics sector are (i) promote regional economic integration, (ii) accelerate growth of trade-related economic sectors, (iii) expand social welfare for the rural areas, and (iv) improve market efficiency (Figure 3).

The government has given priority to regional economic integration as a means to promote trade and overall economic growth. This refers to integration with both the European Union (EU) and the countries to the east of Georgia. The former includes ongoing efforts to harmonize regulations and standards as set out in the Association Agreement (AA). The latter includes both intergovernmental agreements and commercial interactions to facilitate cross-border movements of goods and transport. The goal is to provide efficient intermodal transfers as well as seamless movements across the borders with Georgia's neighbors and the countries in Central Asia.

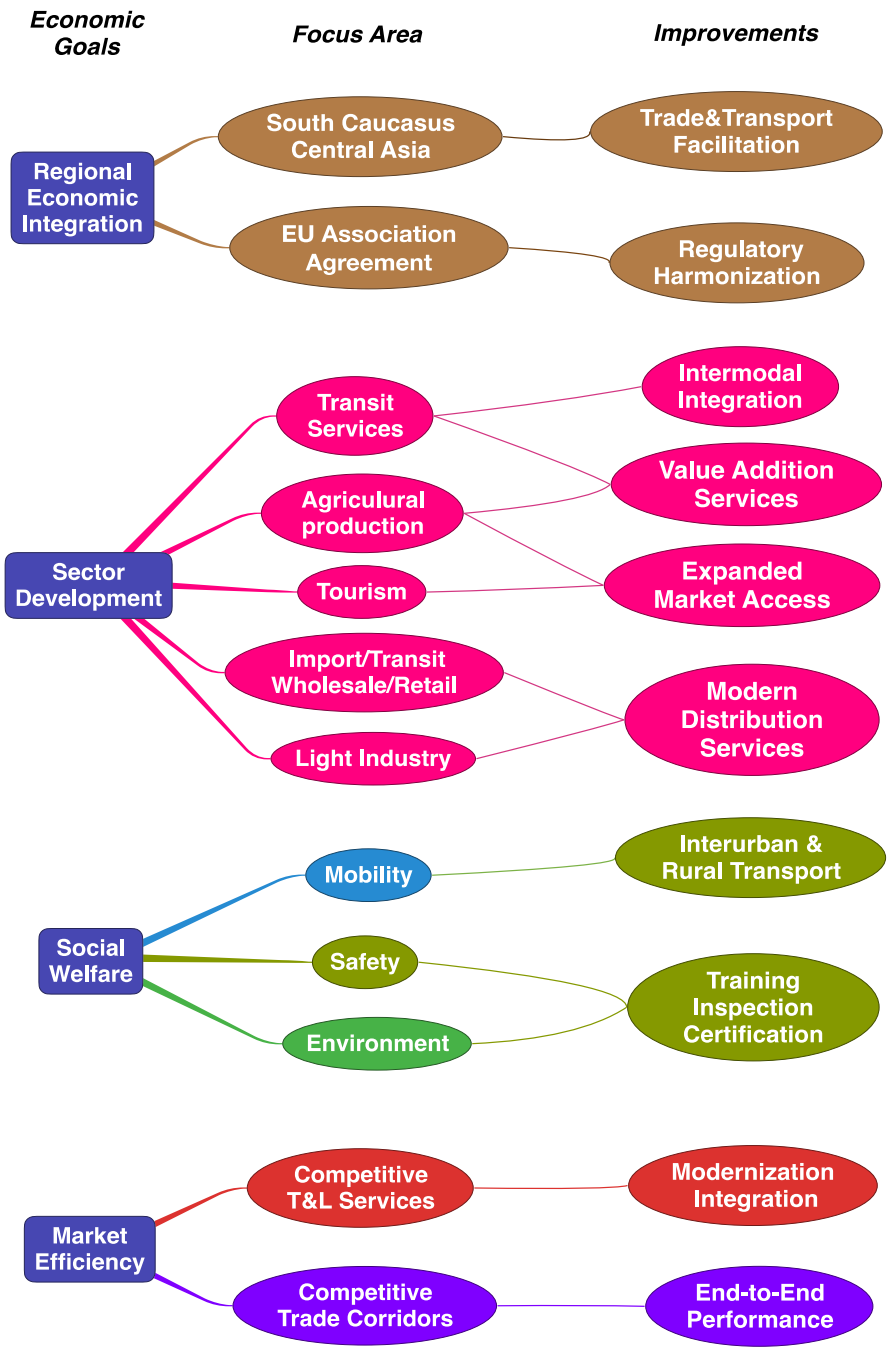
The development of trade depends on the quality of transport and logistics services. The most important exports are agriculture, tourism, and services provided to transit cargo. For agriculture, these services are essential not only to provide access to domestic and export markets but also to increase the value of the delivered products. For tourism, the variety of international transport services determines the markets from which tourists are drawn while the domestic transport has an impact on the attraction of different touristic locations. To compete for transit trade and to develop as a logistics hub, it is essential that these services be modernized and integrated. For imported consumer goods, improvements in the domestic distribution network are necessary to reduce cost and increase the availability of consumer goods.

The expansion of social welfare includes efforts to improve access of residents from the rural areas to suppliers of goods and services in the urban areas and to reduce the environmental and safety risks associated with passenger and freight transport. Improvements in connectivity are difficult to achieve in the rural areas because of the low-density of demand. However, improvements in logistics and supply chain management can provide more efficient distribution of goods and services on low-density routes. Reductions in pollution and traffic accidents are important because of the relatively high level of vehicle pollution and accidents caused by older vehicles that have not been properly maintained.

[3] The main goal of the "Georgia 2020" strategy is to remove the barriers which impede the stable growth of productivity and private sector competitiveness.

[4] The existence of competition in both the internal and external markets is a necessary precondition for a successfully functioning economy. Mutual openness to international trade must be ensured, and free-trade areas must be expanded.

Figure 3: Contribution of Transport and Logistics to Economic Development



The achievement of the first three goals depends on providing an efficient transport infrastructure and services. While infrastructure is provided through some form of public-private initiative, the services are dependent entirely on the private sector for road, sea, and air transport and the logistics services complement all transport modes. So far, initiatives to modernize these services and, equally important, to integrate them into efficient intermodal transport services have been limited. Difficulties in synchronizing sequential services and simplifying the transactions associated with these services have been especially challenging. The focus of modern trade logistics since the 1990s has been on improving transit time and reliability for the entire movement from origin to destination. Georgia's domestic and international trade continues to emphasize least cost. The goal is to increase Georgia's competitiveness by integrating its multimodal logistics chains thereby increasing the reliability and reducing transit times for movements not only through Georgia but also from origin to destination. Equally important, Georgia should increase its contribution to the value chains of the goods shipped through Georgia by providing a greater portion of the value-added services performed between the origin and final destination.

Economic Goals for Each Mode

The economic goals for the individual modes refer to gains in the efficiency of the services and the value added for the goods and people using these services. Similar goals apply to the combination of services found on multimodal routes such as the Trans Caucasus Corridor (TCC).

Road Sector

Domestic road freight services are highly fragmented, operate on relatively short routes, and involve older vehicles with low rates of utilization. The opposite is true for the international road freight services that carry most of Georgia's transit trade and a large proportion of its international trade. The situation for intercity passenger transport is similar. Domestic services are unregulated and provide a much lower quality of service and reliability but at competitive prices. International services are regulated and provide high quality comfortable services at competitive prices. Given the highly competitive nature of these services and the limited involvement of the public sector, the modal goals focus primarily on the physical network rather than the transport services. The principal goals are:

- Construction of E60-E70 East-West Highway.
- Maintain national and secondary roads in good or fair condition;
- Improve access between centers of agricultural production and domestic and international markets and between major international gateways and centers of tourism;
- Provide safe, reliable, convenient and affordable intercity transport, and
- Reduce vehicle pollution and reduce vehicular accidents and fatalities.

Railway Sector

The primary role of the railways is to carry bulk cargo, principally exports from neighboring countries, to the Black Sea ports. Passenger services are limited and there is intense competition from road transport for the carriage of non-bulk cargoes. Nevertheless, the railway system is an important component of the multimodal TCC. The principal economic goals are to:

- Improve reliability and quality of passenger and freight services, and
- Increase rail's share in transport of non-bulk cargo for both domestic shipments and transit shipments to/from South Caucasus and Central Asia.

Maritime Sector

The primary economic goals for this mode concern improvements in performance of the ports on the Black Sea to facilitate the growth in trade, both domestic and transit. Specific goals are to:

- Provide efficient gateways to the TCC with sufficient capacity and with minimum weather delays and port closures, and
- Improve service quality and lower cost through interport and intraport competition.

Other goals related to the development of the sector, but with less impact on overall economic growth are to:

- Promote the Georgian ship registry to attract quality ships, and
- Increase the number of qualified Georgian seafarers.

Aviation Sector

Foreign carriers provide most of the international air transport services while two of the three major airports are operated by a foreign operator under a concession agreement. It is important to increase the number and frequency of the scheduled services to support growth in tourism and to facilitate business travel. The primary goals are to:

- Increase the frequency of airline services and expand the number of countries served, and
- Promote a safe, secure, competitive, efficient, and cost effective civil aviation sector that ensures an orderly growth of air transport services to meet the social and economic development needs of Georgia.

Pipeline Sector

The pipelines that transect Georgia provide transit services for oil and gas shipped from Azerbaijan and Central Asia to Turkey and European markets. They are operated and maintained by the private sector as third party services. The benefits to Georgia include tariff payments and a guaranteed offtake for domestic consumption. The goals for this sector are to:

- Monitor operations to ensure safety and prevent pollution, and
- Obtain reasonable rates of return from the right-of-way provided to the pipeline companies.

Logistics Sector

Logistics services are provided by the private sector. International companies provide the more sophisticated services required by foreign shippers. Local companies tend to provide more basic services for international companies as well as all services for local shippers. The current supply chains are relatively simple but are expected to increase in complexity. The primary goals are:

- Provide modern domestic distribution services and competitive international distribution services,
- Establish value-added services (VAS) that can be integrated into the transit cargo value chains.

Transit Corridor

The physical infrastructure for the TCC has been upgraded but the services have yet to be integrated. Without this integration, it will be difficult to establish a competitive advantage relative to competing routes. The primary goals for the transit corridor are to:

- Develop an integrated multimodal corridor with seamless connections to corridors connected to the EU and Central Asia;

- Increase the market share of regional trade through improved transport and logistics services, and
- Increase VAS provided to the goods and passengers moving through the corridor.

II. Sector Policy

The importance of the transport and logistics sector to the development of Georgia cannot be overstated. Nearly all economic transactions require some transport and logistics services[5] These services are also an important component of trade in services.

Challenges

In the previous decade, Georgia improved the quality and efficiency of its ports and airports by transferring responsibility for their operation from the public sector to private sector. It also transferred responsibility for development of infrastructure but this has been less successful. While the private sector has continued to demonstrate its efficiency in providing transport services, its primary motivation has been to improve profitability. This discourages investment in additional capacity and encourages efforts to reduce competitors from entering the market. The result is that the service providers tend to compete for economic rents in the logistics chains rather than for growth in traffic.

In contrast, the public sector continues to be involved in the development of roads and rail infrastructure. While there has been significant investment in the primary corridors, especially the TCC, the secondary network, which serves the rural population and the agriculture sector, has not been improved.

The decision to forego long-term network planning in favor of short-term project planning for development of the transport network has been less successful. Similarly, the reduction of government's involvement in regulation has had both positive and negative impacts. It appears that the development of a transport network cannot be left entirely to market conditions. In fact, no country takes such a risk. Governments intervene not only through planning and investment but also through policy, regulation, and administrative measures such as taxation and subsidies. These interventions are necessary to provide sufficient capacity and competition to meet the continuing growth in demand.[6]

The difficulty is the complex nature of the transport sector. Each transport mode is a multi-product service in which the transactions are more complex than those of other public sector services, most notably public utilities. The complexity increases when considering the differences between passenger and freight transport, the logistics services that complement these activities and the additional challenge of configuring and managing multimodal networks.

The current structure for public governance of the transport sector in Georgia focuses on policy and technical regulation. It has limited capacity for planning, performance monitoring, evaluation of capital investment, prevention of anti-competitive behavior, and assessment of public-private partnership (PPP). These capabilities together with promotion of coordination among service providers have become increasingly important as modern transport has evolved from a series of individual functions to an integrated multimodal activity. Connectivity and intermodalism have become the hallmark of modern transport systems, even though the services continue to be provided primarily on a modal basis by private and public sectors.

[5] Although this has declined somewhat with the advent of e-commerce and e-governance.

[6] Governments also intervene to reduce negative externalities. These interventions include measures to manage demand in instances where supply side is constrained as in the case of urban traffic and the use of public sector obligations (PSOs) to ensure areas of economic or social importance are not deprived of transport services.

Goals

The government's role in the transport sector needs to be strengthened in areas related to economic and social development. While the private sector is expected to have a dominant role in the provision of services and infrastructure, the government should ensure that the:

1. Coverage and capacity of transport infrastructure is sufficient to meet the demand for domestic, international and transit movements of goods and people.
2. Quality and efficiency of transport services is constantly being improved in order to increase the competitiveness of the country's international trade and to reduce the delivered costs and increase the availability of both domestic and imported goods.
3. Value addition from services and infrastructure provided for transit cargo is maximized.
4. Safety and security of transport services and infrastructure is maintained at an acceptable level and the environmental impacts are minimized.

Public Governance Policies and Implementation Measures

1. Expand role of government in planning and evaluation of transport infrastructure

The building of a transport network requires a system-wide approach not an incremental, investment approach. Plans for development of specific infrastructure should be compatible with a longer-term plan for the development of an integrated, multimodal network. This planning should consider not only the coverage and capacity of the infrastructure but also the efficiency and quality of services that use the infrastructure for different types of cargo and passenger trips.

The preparation of a long-term plan for transport infrastructure is important for several reasons.

- It can be used to identify and reserve sites for future development. Securing land well in advance of development avoids problems of land speculation and reduces the problems of resettlement.
- It establishes linkages between level of demand and requirement for new infrastructure. Since the design and construction of this infrastructure can extend over period of up to 10 years, this plan is needed to begin efforts to increase capacity well in advance of demand.
- It can be used to integrate the network and its major nodes into a plan for a multimodal network.
- The information collected in preparing the plan can be used to reduce the time required for implementation. It can also be used to make adjustments when there are significant changes in technology, e.g. the introduction of very large vessels, double-stack trains, and intermodal terminals with modern warehousing.
- It provides guidance for private sector involvement by defining the objectives for introducing the infrastructure, the functions to be performed and the integration of the infrastructure with the rest of the transport network.

Proposed investments in new infrastructure or expansion of existing infrastructure should be evaluated prior to initiation of construction. This evaluation assesses both the efficiency of design and economic feasibility. Efficiency of design is determined based on life cycle costs for the amount of capacity provided. Economic evaluation considers not only these projected costs but also:

- Change in network capacity associated with the additional infrastructure;
- Existing capacity and timing of the introduction of additional capacity relative to projected demand, and
- Expected benefits, including efficiency gains, based on projected demand.

This evaluation should be used to determine the priority and timing of the investment. In general preference should be given in the following order:

- Additional capacity to eliminate existing bottlenecks,
- Additional coverage and capacity serving the economic sectors selected by government for accelerated growth, and
- Improvement in quality and capacity for routes serving international trade.

The primary benefit is reducing constraints to economic growth. Two additional benefits are:

- Anticipating the demand for additional land for new infrastructure. This allows government to reserve the land thus avoiding the additional cost resulting from land speculation.
- Reducing reliance on private investors for design of infrastructure since they usually produce facilities that meet their financial goals rather than the intended economic development goals.

If this planning effort is to be successful, it must be performed by the government as a coordinated effort rather than the initiative of a specific ministry or government enterprise. While the technical and economic evaluations can be outsourced, a planning entity should be designated to manage these activities and incorporate the results into an integrated plan.

2. *Improve coordination between government agencies to develop intermodal transport*

The development of transport networks and associated infrastructure requires long-term planning because these are long-lived assets. They require a number of years to plan and construct and once operational, have a fixed use. On the other hand, transport and logistic services are less capital-intensive. The assets have a shorter life and their deployment emphasizes flexibility. As a result, these services require strategic planning with a short-to-medium time horizon. This planning should emphasize door-to-door multimodal services with integration provided through intermodal transfers and other logistics services.

To ensure the quality and efficiency of multimodal services, the operations of different modes must be coordinated to provide a level of reliability comparable to unimodal services. The demand for more precise delivery times, especially for intermediate goods and other inputs to production activities, will lead to stricter standards for reliability.

The Trans Caucus corridor has a serious reliability problem due to weather-related stoppages of port operations. These prevent shipping lines from operating to fixed schedules. As a result, transport services connecting to the port cannot be synchronized. For example, it is not possible to introduce scheduled block train movements for eastward movements because they cannot be synchronized with vessel arrivals. For westward movements, it is not possible to synchronize the arrivals of feeder vessels at the transshipment hubs with those of their mother vessels.

Additional uncertainties are introduced at the border crossing between Georgia and Azerbaijan as well as for movements across the Caspian Sea. Since the relative importance of cost, time, and reliability varies, only a subset of the commodities will be shipped between Europe and Central Asia/China via the TCC.

Competitors for this traffic include:

- rail connections between Kazakhstan and the Baltic ports, which offer shorter, more reliable, transit times;
- all-water routes between Eastern China and Europe, which offer lower cost and greater reliability, and
- intermodal routes between Eastern China and Central Asia via Bandar Abbas, which offer a lower cost and shorter transit time.

Strategic planning is required to reduce bottlenecks in the TCC thereby decreasing the overall transit time and cost while increasing reliability in the connections between the corridor and transport services crossing the Black and Caspian Seas. It is also needed to identify mechanisms for increased coordination among transport and logistics service providers in the corridor. These mechanisms include:

- Adoption of supply chain management by the shippers and their freight forwarders. In order to optimize their supply chains, they will require better coordination among the transport and logistics service providers (LSPs);
- Introduction of intergovernmental agreements between public services provider and cross-border joint ventures; and between private service providers, and vertical integration of transport and logistics services;
- Coordination in introducing cross-border trade facilitation initiatives;
- Development of logistics clusters to expedite intermodal transfers and provide supplementary services including intermediate storage, distribution services, and value- added processing;
- Public-private collaboration to (i) promote greater coordination among service providers, (ii) monitor their performance, and (iii) advocate policies and investments that will improve overall corridor performance.

3. Enhance government capacity in economic regulation for transport sector

The liberalization of the market for transport and logistics services, which occurred in the mid-2000s in Georgia, has only recently been complemented by a regulatory framework to protect against market failures. The Competition law of 2012, which was amended in 2014 based on EU anti-trust legislation, contains provisions to address anti-competitive agreements, abuse of a dominant position and mergers that would strengthen a dominant position. While enforcement of this law will have an impact on business practices in general, it is unlikely to have much influence on the transport sector where there are a large variety of services offered by individual providers, an increasing amount of vertical integration to meet the requirements of the market and a significant proportion of activities that extend beyond the borders of Georgia.

At present, there is no entity to perform economic regulation of transport services, provided by the public sector directly or through PPP agreements, where there is a natural monopoly.[7] The regulation would have two components.

- administrative regulation for adjustments in pricing (notification of change, bundling, indexing of prices, etc.), entry into new markets and enforcement of contractual agreements; and
- adjudicative regulation for eliminating discriminatory practices related to use of public infrastructure and anti-competitive practices related to provision of transport services.

[7] In contrast, the administration of technical regulation is performed by the modal agencies, e.g. Maritime Transport Agency, Civil Aviation Authority, and Land Transport Agency.

Administrative regulation can be used in the implementation of PPP agreements covering transport and logistics services. Among the provisions in these agreements that require economic regulation are periodic adjustment in tariffs, continuation of exclusivity based on economic conditions, compliance with financial obligations regarding capital investments, reporting of financial data, conditions necessary for renewal or early termination, and determination of penalties and other remedies for non-compliance.

The EU-AA requires the establishment of an independent economic regulator to ensure transparency and non-discrimination in pricing of public transport services. This requirement is reiterated in the directives related to rail and aviation transport but can be applied to all modes. Presumably, this would require adjudication, but the same regulator can provide administrative oversight.

Economic regulation should be limited in scope and be in the form of light regulation. The situations in which this regulation should be applied include:

- Services where there is lack of competition (allowing for the benefits of integration, e.g. multimodal transport and modern supply chain management), and
- Public infrastructure for which access is to be provided on a non-discriminatory basis.

Regulation of private sector logistics services (other than transport) is generally limited to self-regulation because of the variety of activities and the limited barriers to entry.[8] Self-regulation can be strengthened through local accreditation programs or through international certification programs, e.g. ISO, GAP.

Technical regulation is currently performed by government agencies for the aviation, road and maritime sectors to address issues regarding safety and security. These agencies should be separate from the economic regulator not only to prevent conflicts of interest but also because they require quite different skills.[9]

4. Introduce modern PPP agreement for provision of transport infrastructure and services

The options available to government for involving the private sector in the provision and/or management of public infrastructure range from simple land leases to the sale of land and associated assets with restrictions on their use. The terms are set out in a formal PPP agreement, which stipulates the obligations and liabilities of both parties, the period of the agreement, the basis for early termination and the restrictions on government involvement in competing activities. They also indicate the ownership of the assets both during the term of the agreements and afterwards. In the case of transport infrastructure, there are certain assets that normally remain under control of the government because they are necessary for future development of the transport system and would provide a private owner with a monopoly in the provision of transport services.

These strategic assets usually include the land on which the infrastructure is located as well as the access to the infrastructure. It may also include the basic infrastructure, e.g. quay walls, runways, rail trackage, and other facilities and fixed equipment, e.g. harbor cranes, control towers and instrument approach systems, railway stations. Control over these strategic assets is transferred to the private section through leases or concessions that have a limited time and stipulate the permitted uses of the assets.

[8] Logistics services are generally asset-light. Where physical assets are required such as for warehousing, these are often leased rather than owned.

[9] The two types of regulation could be combined as is done in the United Kingdom. However, it is more common for the two types of regulation to be performed separately.

Decisions regarding government responsibility for activities related to the infrastructure should be based on the relative advantages that the public and private sectors can offer. Operations usually benefit from private sector management. In contrast, large investments in infrastructure that require little labor to operate, or are designed to enhance social welfare, usually benefit from public management. Each situation should be decided separately based on the goals and characteristics of the service to be provided.

The use of PPP agreements (including privatizations in which government restricts the use of the land) has produced mixed results in the transport sector of Georgia. This is largely due to a lack of effective legislation[10] and procedures to guide their implementation. Efforts to improve the legislation are currently underway. However, the procedures for formulating and tendering PPP agreements need to be strengthened in specific areas as follows:

1. Preparation of clearly stated set of objectives for introducing a PPP agreement
2. Integration of the objectives into the text of each PPP agreement
3. Solicitation and selection the private sector partner for each agreement, and;
4. Procedure for adjusting of the terms of each agreement when there is a potentially significant changes in underlying market conditions over the life of the agreement.

The underlying objective of a PPP should be to provide a measurable improvement for the Georgian economy. This generally implies an increase in efficiency through provision of additional infrastructure or services and/or an improvement in the quality of these services. However, it also requires that the resulting benefits be shared between the users of the services, the government, and the private partner in a way that maximizes the benefit to the economy.

In the past, not enough attention has been given to including these objectives in the PPP agreements. There has been an emphasis on investment in infrastructure rather than improvement in quality of services. There has also been a transfer of responsibility for pricing of services and collection of all revenues to the private sector.

These agreements have lacked transparency in their preparation and in the selection of the private sector partners. This might have been justified due to difficulties in attracting potential investors and in the interest of expediency in achieving reforms. However, other countries have achieved better results when applying more transparent procedures. Since regulations are in place to promote such transparency, the challenge may be to develop a more effective process and enforce existing regulations.

The structure of PPP agreements has evolved considerably over the last few decades based on international experience. Legal precedence has reduced the need for complex agreements while experience has identified issues that are difficult or impossible to enforce through contractual agreements. The recognition of the needs for increased due diligence has been balanced by a better understanding of what are the principal strategic issues to be addressed. There has also be a recognition of the need to monitor performance of the services provided under the agreement and to make adjustments in the agreement when necessary to improve performance.

Because most of the PPP agreements have long periods of effectiveness, there is a need to periodically modify the terms of the agreements to reflect changes in demand, technology, operations, and public concerns with regards to safety and environment. The need to modify an agreement is common when there is no prior experience with agreements for specific types of infrastructure or service. Georgia is

[10] At present, Georgia does not have a PPP law, although the EBRD has a project underway to develop the legislation required. ADB has a complementary project to develop procedures for implementing PPP agreements.

now experienced in modifying the TAV agreement and can benefit from similar experiences in other countries. These experiences have demonstrated that for the modifications to be feasible and successful they must benefit both parties to the agreement.

5. Introduce performance monitoring for the transport sector

The collection of statistics regarding the transport sector has two important uses. The first is to project future demand for transport infrastructure and services. The second is to determine the efficiency and competitiveness of the services and utilization of infrastructure

Monitoring performance in the transport sector is important for a number of reasons including:

- Identifying problems of declining productivity, congestion and other bottlenecks;
- Estimating current operating capacity and predicting future requirements;
- Determining current levels of utilization of fixed assets;
- Providing measures to be included in performance-based contracts, and
- Identifying trends in modal share and choice of gateway.

Although there are various lists of standard key performance indicators (KPIs) for transport and logistics sector, it is frequently necessary to modify these or introduce new KPIs for specific activities or objectives. This creates a challenge not only in defining the appropriate measure but also in collecting and processing the required data.

When introducing KPIs, it is important to have a clear objective and existing sources of data. The data should be collected at the point of aggregation. While it is possible to collect data from the recipients of transport and logistics services, this will be less efficient than collecting it from the services providers. Much of this data is already collected to monitor the use and condition of their physical assets, record the services provided to clients, track the movement of goods, and invoice clients. This data is increasingly stored in electronic form.

At present, there are two major limitations in the reporting of statistics for the transport sector. First is the sample size which is limited to major enterprises. Second is the scope of the data, which has focused on volume of activity rather than performance. The first creates major gaps in information concerning road transport. The second limits information on the capacity and productivity of different transport activities. This information is needed to assess competitiveness and identify improvements required.

Some of the performance data can be obtained from existing enterprises that collect a substantial amount of data for their KPIs. Since these indices vary among enterprises., it is important to identify the relevant KPI's, determine where the data needed to compute these indices can be collected, and negotiate with the source of the data on the processing and reporting of this information. Where this information is not available from the enterprises, it is necessary to assess the importance of the data relative to the effort required to collect it. There may also be issues of confidentiality regarding the release of performance data, but these can usually be addressed.

Benefits

The principal benefit of stronger governance is the capability to support rapid economic growth. The three areas which are expected to lead this growth are agriculture, tourism and services to transit cargo. Currently, each offers a relatively low value product. All are transport-intensive. Improvements to transport and logistics services will add to the value of these products as well as supporting a growth in the total output.

III. Road Sector

Challenges

Infrastructure Capacity and Condition

One of the primary issues in the roads sector is the need to complete rehabilitation of the network. Although substantial investments in rehabilitation have been made since 2004 about 10% of the international road network still remains in poor condition. The primary network of approximately 1,600 km links Georgia with neighboring countries (of which 1,300 km is under the responsibility of Roads Department and around 300 km in conflict regions). The main route is the East West Highway linking Poti port in the west with the capital, Tbilisi, and through to the Azerbaijan border at Red Bridge in the east. Most of this route has already been improved and a majority of remaining sections are planned to be completed by 2020. Following completion, the route—which is an important part of the TCC—will provide a high quality road linking the Black Sea with markets in neighboring countries. The remainder of the primary network linking Russian in the north, Armenia in the south, and Turkey in the southwest, either has been or will be improved. The Batumi bypass will also be completed by 2020. The secondary network (approximately 5,300 km of which around 560 km is in conflict regions) links the main towns and urban centers in Georgia. Approximately 1,650 km of secondary roads is categorized as in poor condition. Further, the local road network of over 13,000 km is largely in poor condition, which severely inhibits development opportunities in rural areas.

Improving the quality of the road network is arguably the largest challenge in the transport sector as it provides the backbone and vital linkages for all economic and social activities to take place. The primary challenge of the core network, which comprises roads serving the major origins and destinations, is to cater to heavy traffic volumes. These roads account for most of the vehicle kilometers and the major challenge is to minimize vehicle operating costs. These roads require adequate capacity to meet traffic demand over the next 10 to 15 years. For the non-core network—which comprises the lightly trafficked roads serving smaller towns, villages and rural locations— the primary challenge is to provide accessibility to ensure that transport provides opportunities for economic and social development activities. Due to low traffic flows and often limited development opportunities, these roads can remain at a lower standard as light traffic levels do not warrant expensive investment.

Mobility and Accessibility

The road network needs to provide both mobility and accessibility. A large part of this network comprises low traffic roads serving primarily local communities. In these locations, the primary challenge is to provide adequate accessibility to ensure that the communities have access to markets and local population has the opportunity to advance their social development. Since investment resources are limited, the challenge is to allocate resources in a manner that will both maintain the mobility needs of the economy as a whole, as well as sustain development in areas with less developed access. Part of the issue concerns the availability of an adequate planning framework that covers both social and economic spatial development as well as the resource needs required for adequate road asset management. Road asset management tools such as Highway Management Model 4 (HDM 4)[11] are being applied for existing roads but spatial development efforts need to be strengthened for assessment of new roads that serve development areas

[11] In 1996, the Highway Management Model 4 was developed by the World Bank; Asian Development Bank; Department for International Development, UK; and the Swedish International Cooperation Development Agency. It is transport software designed to undertake strategic, programmatic and project analyses. It is widely used by highway agencies worldwide including Georgia.

Competition for Transport Services

As the infrastructure services are improved, there is a need to ensure that transport services for both passengers and freight are competitively operated for the market as well as in the market. Due to severe operating difficulties and constraints in the past, transport services were deregulated to the extent that currently there are almost no regulations required to operate road freight or public transport services. This has had a significant impact on the market for such services and has resulted in a large number of operators entering the market who now provide competitive services but at a low quality with little regard for consumer needs, safety or good environmental practices. The exception is international services which due to international agreements is well managed and regulated and provides low cost competitive services. The challenge is to replicate the quality of international services at the domestic level and this will require the reintroduction of regulation to promote service quality.

Financial Performance

The road sector is not normally viewed from a financial viewpoint since intercity transport services are the domain of private sector owners and operators and do not involve public sector operation. However, the main challenge for the sector's financial performance is the public sector expenditures allocated for infrastructure provision and operation. The financial performance is commonly measured by comparing the public sector expenditures allocated for road development and management compared to the revenue streams obtained from vehicle ownership and use. The usefulness of this comparison is to understand the revenue balance and this is particularly useful in an economy such as Georgia where the allocations for infrastructure are relatively high; the costs of vehicle ownership and use are relatively low; and the key indicators of infrastructure sustainability and the adequacy of road maintenance are subject to fragility and risk. In the past, negligence in maintenance created a significant financial challenge which almost resulted in the collapse of the road network. This subsequently required large investment commitments from external donors over the period to 2020 to remedy deficiencies in the core road network. Despite this investment, a large maintenance backlog remains. Allocations for periodic and routine maintenance have improved but still remain below the requirements of good road asset management practices. As a result, the financial needs of the road sector are projected to remain high over the next decade.

Road Safety

Improvements in the quality of the road network coupled with the rapid increase in the vehicle fleet are adding pressure to the safety aspects of the network. Following an increase in the number of road crashes and a consequent increase in the number of fatalities, an action plan was developed covering the period 2009 to 2013. While it was under-resourced and not well-coordinated, several actions were implemented that reduced this trend. Most importantly, the reductions in the number of crashes and fatalities need to be viewed against a 67% increase in the vehicle fleet over the same time period. A portion of the safety gains can be traced directly to the adoption of important actions such as the compulsory use of seat belts by front seat passengers, the introduction and enforcement of drink driving legislation, and the incorporation of road safety in school curricula. While gains in safety have been made, significant safety issues remain as the number of fatalities per 100,000 population remain more than 4 times that of the best performers in the EU.[12] This despite relatively low vehicle ownership. There is thus significant room for improvement. More recently an updated action plan covering 2015-2020 was prepared with assistance of the World Bank but it has yet to be formerly approved. Discussions on institutional arrangements to coordinate and manage road safety are ongoing. The key challenges in road safety concern inter-agency coordination, resource availability including financial funding and human resources, lack of an approved road safety strategy and action plan, and strengthened enforcement. Inadequate regulation also constrains potential improvements in road safety.

[12] The Global Status Report on Road Safety 2015, World Health Organization, Geneva reported that the number of road crash deaths per 100,000 population is 11.8. This compares to the best EU performing countries as 3.4 in Netherlands, 2.8 in Sweden and 2.9 in United Kingdom.

Environmental Impacts

While there have been considerable gains in mobility and accessibility over the past decade, the large increase in the number and movement of vehicles have adversely affected the health of a large proportion of the population. Road transport is a well known cause of environmental degradation and is also a significant contributor to global warming. In many cases, the close linkages between these two have adverse impacts and there can be considerable co-benefits from addressing each of these issues. Key challenges involve addressing air quality issues caused by combustion of carbon fuels and the high level of greenhouse gases (GhG) emitted by motorized vehicles. Addressing these challenges requires well-coordinated multisector action plans which have support from private sector industries, particularly those in the automotive and fuel sector, together with backing from the general public who need to be aware of the consequences of a deteriorating environment.

Association Agreement

The EU-AA identifies a number of areas in the road sector where regulatory changes are required to either meet international standards or approximate Georgian regulations to those adopted in the EU states. Within the sector, the key areas concern the operation of road transport vehicles, vehicle testing, driver licensing and cleaner vehicles and fuels.

Goals

The goals for the road sector are derived from the general transport goals described in Chapter II. The road sector goals focus on the main development thrusts and primarily concern investment and maintenance of the infrastructure, support for development of the economy particularly in agriculture and tourism, as well as the services needed to kindle their expansion by private investment. For transport services, the goals focus on improving the quality and variety of intercity passenger transport and addressing the negative impacts concerning possible safety and environmental outcomes. The primary goals which will support the Georgia 2020 development plan are:

- Complete construction of the East West highway;
- Complete rehabilitation of secondary roads;
- Implement modern maintenance practices;
- Improve access between centers of agricultural production and domestic and international markets, and between major international gateways and centers of tourism;
- Provide safe, reliable, convenient and affordable intercity transport;
- Reduce vehicle pollution;
- Reduce vehicular accidents and fatalities, and
- Harmonize and/or approximate various road transport regulations and conventions with those of the EU-AA.

Mode Specific Policies and Implementation Measures

The mode specific policies and implementation measures in the road sector can be broadly categorized into infrastructure network issues and provision of transport services.

Infrastructure Network Policies

1. Develop the core network to meet growth in traffic

The primary goal of the road sector has been to construct and improve the East West Highway corridor which provides the backbone of road movements in the country as well as the international trade route linking the Black Sea with Central Asia and beyond to the People's Republic of China. The corridor links the capital, Tbilisi, with other major towns and urban areas and is the heaviest trafficked road in the country. Other primary roads link Tbilisi with Russia to the north and Armenia to the south of Georgia. In addition, the road linking the Black Sea ports of Poti and Batumi with Turkey is also part of the primary road network. The secondary road network provides important linkages to other towns and cities in the country. Many of these roads provide vital linkages to economic centers of commerce and population. These roads together form the core road network and the important policy thrust is to ensure that they are maintained to a high standard and ensure that they continue to provide mobility benefits in the long term.

Investment in road infrastructure is expensive; therefore, investment decisions need to be based on appropriate planning and economic analysis to ensure that the benefits of investment are cost-effective and that individual investment decisions are sound to ensure high economic and social returns to the economy. In terms of road investment, it is necessary to consider "life-cycle" costs and benefits over the long term (at least 20 years) since the gestation period for economic benefits are long term. Such an analysis will ensure that investments are decided appropriately and policymakers understand the long term nature of the investment. A road that fails prematurely due to poor performance or lack of maintenance will not benefit the economy to its maximum extent. Management of high trafficked roads is well understood and the use of software such as HDM 4 both as a strategic program tool and as a decision tool to prioritize investment is well understood. There is now a requirement to develop road asset management tools to improve the maintenance needs of the maintainable network and manage the network assets at least cost.

These tools need to be complemented by greater use of strategic analyses which will identify areas of economic potential which may be constrained by poor access. Strategic planning is normally the first tier of planning which is applied to identify broad-based development priorities and most importantly link land use to transport needs. Accessibility is important to unlocking development potential and this type of planning assessment needs to be introduced on a regional and/or subregional basis. To support the development of broad-based development plans, a long-term road master plan should be undertaken that identifies the strategic needs of the road sector and estimates the investment requirements and priorities over the long term.

2. Develop the non-core network to meet the needs of local communities

The core network represents only a small proportion of the total road network although it consists of heavily trafficked roads. The bulk of Georgia's roads consist of secondary roads with approximately 35% in poor condition and a local road network of 13,000 km with 60% in poor condition. Together these roads represent the non-core network and comprise 76% of the network length. Many rural towns and villages are poorly served by roads. As a result, the residents and populations in their hinterlands do not significantly benefit from investment in transport infrastructure. Strategic analysis should be undertaken to identify areas of economic and social development potential and enable priorities in investment potential to be identified and prioritized.

3. Improve access to agriculture and industrial clusters

A program to identify potential investment in local roads should be closely linked to programs to support agricultural development and rural-based industrial clusters. Similarly, such programs should also be developed to harness the tourism potential in areas identified for such economic activity. Both these types of economic activities will benefit from "last kilometer" investment in infrastructure, as frequently, the potential of a particular location is not unlocked until the activity area becomes fully accessible by road. This is especially the case for tourism where the bulk of tourists only visit locations that are easily accessible.

Developing the potential of rural areas usually requires the use of geographic information systems coupled with supply chain analysis in planning road network requirements and enhancements. Use of these tools should be a priority in developing rural access programs.

4. Plan and implement road maintenance to minimize overall cost of road transport

Adequate road maintenance is perhaps the most important road sector policy. Worldwide experience has demonstrated the high economic returns from conducting timely road maintenance. Poor road surfaces directly cause increases in vehicle operating costs. In a situation where traffic flows are high, these costs rapidly increase. Application of road management software tools clearly demonstrates the impact of road deterioration on vehicle operating costs. On average, for each $1 spent on maintenance at least $3 are saved in the costs of vehicle operation. With such high rates of return, road maintenance needs to be given the highest priority when allocating expenditures for road works. An analysis of "whole life cycle costs" demonstrates that adequate and timely maintenance is the optimum option in road planning and ensuring that road assets are properly managed will provide the highest economic return and is the least cost option for managing road assets.

Georgia witnessed the implications of insufficient funding allocations for its road assets when the quality of roads severely deteriorated in the 1990s. Indeed, many of the current issues in the condition of the network stem from this period when roads were allowed to deteriorate due to funding shortfalls and a high proportion (76%) of the network was in bad condition. As a result, these road assets provided limited economic and social benefit to population in their hinterlands. While economic analysis clearly demonstrates the high returns to maintenance, the road budget does not yet allocate sufficient funding to maintain the network. Part of the issue relates to the high priority given to completing the East West Highway which requires large funding allocations for construction and improvement to bring it to international standards. Over the period to 2018, the allocations for construction are estimated to consume about 50%-60% of the road budget while allocations for rehabilitation and periodic maintenance which are largely for the former, amount to about 30%-35%. Routine maintenance allocations only comprise 7%–9% of the total road sector budget and are below the level required to optimize road conditions. The medium-term policy should aim to increase the resources committed to preserve the value of the road assets.

The policy for road maintenance has moved away from public sector force account works towards using contracts with private sector entities to carry out routine maintenance requirements. Most recently, pilot programs are being tested to ascertain the benefits of performance-based contracts for road maintenance. This modality is expected to be adopted as the long-term policy for conducting maintenance.

A major constraint over a large proportion of the network is the high proportion of roads in poor and bad condition as noted above. These roads are currently in an "unmaintainable" condition and require reconstruction prior to inclusion in a maintenance program. These roads, which are primarily secondary

roads, comprise a pool of assets requiring backlog treatment. They are prioritized for rehabilitation using HDM 4 and according to planned budget, the backlog will be eliminated over the next 5 years.

One possibility to accelerate the elimination of the backlog of roads in poor condition is to increase the funding provided for rehabilitation and maintenance. This could be achieved by increasing revenues from road user charges and allocating them for such purposes.

5. Increase user fees to help finance improvements in road infrastructure

Data and information gathered from the Ministry of Finance indicates that expenditures on the road network significantly exceed revenues from road users. Currently, revenues comprising fuel taxes (excluding value-added tax), vehicle one-time registration fees and transit fees only amount to 40% of expenditures. This is low compared to other countries although the vehicle fleet is growing rapidly. There is opportunity to examine the scope for addressing the imbalance between expenditures and revenues in the sector to ensure that road users adequately contribute towards the cost of road asset management. The sector policy needs to address this issue in the short term as it will have an important influence on public sector financing as well as impacting on road users.

Transport Services

1. Develop intercity passenger services that are reliable, convenient, affordable and safe

The domestic intercity road passenger transport sector was deregulated in 2006 and there are few regulations to market entry or operation. The regulatory functions were made the responsibility of the Land Transport Agency in 2011 when it was separated from the Transport Policy Department but the enabling legislation did not provide legal powers to regulate or carry out its designated functions. As a result, the sector currently operates in a regulatory vacuum and the various stakeholders have structured themselves according to the power they have in the market. The sector policy is designed to remedy the shortcomings in sector operations by adopting regulations that will improve the reliability of services to consumers, operate services according to an agreed timetable that is well publicized, utilize vehicles that are clean and safe by well-trained drivers and operators.

An initial step will be to improve the planning and location of bus terminals. While many of the formal terminals are in appropriate locations, there are many non-formal terminals using public road space that are not well organized, thus creating congestion, and degrading the environment. Most terminals are located in the larger towns and cities. The assessment of transport needs together with urban transport requirements are reviewed by the LTA and municipal authorities. This will ensure that bus terminal locations are appropriate and serve the public needs.

Terminal operators have a strong hold over the market by deciding which operators can use the terminals, charge prices that many operators consider high, and offer related services such as bus washing and cleaning and refueling at high prices. Moreover, they effectively control the income of the bus operators by monopolizing ticketing services in the terminals. An important part of the policy will be to ensure that terminals are operated in the public interest and provide services at competitive and fair prices.

Information on fares, schedules, and ticketing are often not available or easily accessible. A component of the policy will ensure that awareness of information on public transport services is widely available using modern communication techniques. This will also be extended to ticketing where use of electronic techniques will be utilized to facilitate consumer needs and demands.

The disparate number of owner operators in an unregulated market will be harnessed to provide modern transport services demanded by users in the expanding market economy. Driver training programs will be enhanced to ensure that safety procedures are an important component of transport service and that good driving techniques and practices are followed. Certification of bus operators and drivers will be focal aspects of the policy which will be designed to provide quality transport services operating competitively and safely at affordable prices.

2. Reduce the loss of life from road crashes

Addressing the country's road safety problems will be a major component of policy in the road sector. The basis of the policy will be the adoption of a national road safety strategy and action plan which will provide the focal point for various plans and actions. The overall plan will be based on the five pillars of road safety: improved coordination, safer roads, safer road vehicles, safer road users and post-crash assistance and care.

Experience in Europe and elsewhere has demonstrated that any plan requires excellent coordination. Road safety is multisectoral in nature, and requires multi-stakeholder support from across public and private sector institutions. Being a public good, strong leadership from government is essential and civil society support is also required to raise the awareness, knowledge and understanding required to produce effective outcomes. Coordination will be undertaken through a high-level multisector committee supported by a secretariat. Adequate financial and human resources will be made available to ensure that action plans are implemented in a timely manner and on a scale required to produce intended outcomes. The secretariat will also be responsible for monitoring and evaluating the outcomes to provide the essential feedback for future plans and programs.

Safer roads are a core component of a road safety plan. Increasing vehicle speeds primarily attributable to better quality roads often increases safety risks especially where improvements are made on existing alignments. Road design parameters differ with the design standards.[13] It is necessary to ascertain the risks during the design stage to minimize physical changes to road layouts at a subsequent stage. Adoption of road safety audit together with measures designed to ensure that audit recommendations are acted upon should be agreed. Black spot and crash clustering analyses based on accident databases will be undertaken to identify locations with higher operational safety risks. Attention will also be given to minimizing crash risks during works programs by taking proper preventive actions and risk reduction measures during construction and maintenance activities.

More than 90% of the Georgian vehicle fleet exceeds 10 years in age and about half of these are more than 20 years old. This is primarily due to the import of mostly used vehicles, many of which may have exceeded their useful operating life in other countries. Part of the problem is due to a tax bias against newer vehicles as old vehicles between 7 and 12 years of age are levied lower taxes. A change in the tax regime to eliminate this tax differential should be considered to lower the demand for the import of old vehicles both on safety and environmental[14] grounds. The need to have vehicles to have minimum safety standard is important since the majority of road crash victims are pedestrians and often innocent parties to accidents. Many vehicles are in poor mechanical condition without adequate safety features. Vehicle testing needs to be introduced annually for all vehicles exceeding 3 years old to ensure that vehicles are operating safely. In addition to vehicle testing, better driving standards need to be attained through

[13] Georgia has yet to adopt a national design standard. Currently, road designs follow various international design standards and this can lead to problems in assessing safety requirements as the different design standards consider road safety differently.

[14] In adjacent countries, regulations have been adopted to ban the import of vehicles of EURO 3 standards and below on environmental grounds as they are highly polluting. Georgia should also consider adopting a similar measure as well as a timetable to move to EURO 5 fuels and emission standards.

stricter driving testing, introduction of penalty points to regular offenders, strengthened enforcement of regulations as well as strengthened regulations. New vehicles should be mandated to incorporate and meet safety standards operated in EU states and existing vehicles maintained to their original manufacturing specifications.

Road users are a common source of road risk. Increased knowledge and awareness of proper road use needs be inculcated in the population. This will involve a variety of actions including strengthened curricula at schools, increased awareness through public media and programs organizations to deliver safety messages to defined markets to be supported by civil society organizations and the private sector.

After a road crash, it is important to provide timely assistance to crash victims. An effective emergency system needs to identify crash locations promptly, then quickly access locations with emergency vehicles and personnel. Adequate hospital and emergency centers with necessary equipment and trained medical staff to attend to victims are essential components of a comprehensive road safety action plan. The road safety policy will ensure that these facilities are strengthened and improved so that crash victims can be attended to promptly.

3. Reduce pollution from road transport

Pollution from road transport is one of the biggest adverse impacts of motorization. Vehicle emissions can be categorized in two forms: those that create air pollution and impact the health of the population, and those that create GhG that affect global climate conditions. The former which are easier for people to identify are particularly harmful as they produced at ground level. From a policy perspective, it is necessary to control vehicle emissions by setting maximum emission standards that are measured at the exhaust pipe. Control of emissions depends on a combination of engine technology and quality of fuels. Different controls and standards are required for different engine fuel types and those adopted by Georgia refer to the EURO standards which are the standards used by the EU.

To control emissions, it will be necessary to regularly update fuel qualities and emission standards and ensure that they are enforced. Since emission standards are governed by engine technology, it is not possible to "upgrade" a vehicle from one standard to a higher standard without fitting a replacement engine. Thus vehicle testing needs to consider the age of a vehicle since different EURO standards were adopted at different times. It also needs to be noted that vehicles produced in the USA or Japan, which are commonly imported to Georgia, have been designed to different emission standards since their countries of origin have different standards to those adopted in Europe.

Regular vehicle testing of emissions is usually a component of the annual vehicle mechanical test. In many countries, the test is a part of the requirement for the annual registration process. Georgia will adopt regular vehicle testing in the future and the policy will also incorporate the emissions test to ensure that all vehicles meet standards at the time of testing.

The transport sector is responsible for about 23% of the fuels consumed globally, the bulk of which are from road transport. It is thus a large component of GhG production and due to the rapidly increasing motorization of countries it is the fastest growth sector of GhG. As a global issue, it is necessary for all countries to mitigate production of GhG and Georgia is committed to supporting reductions where possible. The production of carbon dioxide is directly related to consumption of carbon fuels and thus the range of options available to reduce GhG includes:

- Promotion and use of public transport and nonmotorized modes at the expense of private modes;
- Improve linkages between land use and transport to minimize travel needs and requirements,
- Promotion of fuel efficiency in road transport through labeling and tax policy,

- Adoption of regulations to reduce carbon emissions from vehicles,
- Utilization of traffic management techniques to reduce per capita vehicle kilometers, and
- Use of economic pricing measures to reduce traffic flows.

Georgia will adopt appropriate measures to address GhGs produced by the transport sector and reduce absolute volumes based on technical analyses.

4. Introduce regulatory functions to meet the requirements of EU regulations

An important element of the road sector policy is to harmonize Georgia's standards with various international standards and conventions. In particular, agreement has been reached to introduce or approximate a number of the country's regulations with various EU directives and regulations. Annex A provides a summary of the implementation status relating to the EU-AA for the road transport sector.

The EU agreement covers a number of regulations that are already partially implemented in existing regulations. It is expected that the outstanding measures required to fully meet the Agreement in the road sector will be met within the agreed timetable.

Benefits

Transport, and particularly road transport, underpins a wide range of economic and social activities which govern spatial development, use of national resources and growth in per capita incomes as well as the delivery of social services that result in better health, welfare and the well-being of the Georgian people. The principal benefits from the road sector policy are to:

Contribute to economic growth: Roads and road transport services are an important contributor to economic activities throughout the economy by facilitating the movement of people and goods. Improved roads reduce vehicle operating costs. These can have a direct impact on prices of goods and services as the transport component of market prices can be considerable. Road infrastructure also facilitates increased accessibility which has a significant role in providing access to markets for products and services as well as access to work and job creation through investment opportunities in land and other factors of production in the hinterland of roads.

Support social development: Road infrastructure and transport services have a significant role in promoting social development opportunities. They not only provide access to schools, hospitals, clinics and other social services but also provide the linkages for inter personal access which is important for communities to interact with each other. Road links also provide the necessary connections for governments to provide a wide range of administrative services to communities.

Increase in mobility and connectivity: Roads and footpaths have provided communities with connectivity for many centuries but the advent of motorized transport has rapidly facilitated personal mobility and connectivity between origins and destinations. Connectivity is vital in linking communities, centers of production and consumption, and centers of interest such as tourism locations.

Increase in quality of road transport services: Currently, transport services are competitive and cover most of the country. However, they are of low quality, operate inefficiently and do not adhere to safety regulations. The road policy is designed to improve the quality of services required by the emerging economy, and ensure that the services are reliable, safe, and affordable.

Improvements in safety: Increasing motorization is resulting in greater number of deaths and injuries on the nation's roads. The road policy is designed to reduce the economic and social losses on the road network by addressing the primary causes of road crashes and taking appropriate actions to mitigate them.

Reduction in environmental impact: One of the disadvantages of road transport is the disbenefit that can occur to the environment if appropriate actions are ignored. The road policy will ensure that environmental impacts will be identified and addressed at all stages. Infrastructure will incorporate environmental mitigation measures to eliminate or minimize potential adverse impacts while regulation and enforcement of vehicle emissions will be strengthened to minimize pollution impacts including those affecting changes to the climate.

Reduced impact on public finance: Road infrastructure is largely provided by the government as a public good. In this respect, it receives one of the largest financial allocations in the annual budget for both its provision and maintenance. The road policy will continue to observe the expenditure revenue balance to ensure that road users contribute towards its overall costs and that the infrastructure itself does not impose undue stress on the other sectors of the economy.

IV. Rail Sector

Challenges

Competition

For freight transport, the principal challenge faced by Georgian Railway (GR) is competition from pipelines for liquid bulk traffic and from road transport for non-bulk cargoes (especially containers) and passengers. While the ongoing modernization of the railways will offer significant improvements in level of service for the domestic movement, these are less significant in terms of the competitive position of the international routes which they serve. New opportunities created by the completion of the Baku-Tbilisi-Kars rail corridor and the introduction of through movements from China may generate additional demand but are unlikely to increase overall market share relative to competing transit routes. Improvements in terms of intermodal services and through movements to Central Asia are necessary in order to slow the current decline in market share.

Institutional Structure

GR is a state-owned enterprise with all shares owned by the Partnership Fund. This arrangement provides greater flexibility in responding to market demand. However, GR continues to focus on operating a railway and benefiting from its dominant position in that mode rather than competing as a transport service provider.

Financial Performance

The freight services provided by GR are profitable, but its passenger services do not cover the full operating cost. The losses incurred in providing passenger services are small and linked primarily to suburban railways. They have little impact on overall financial performance. The contribution of its subsidiaries[15] are not reported separately but currently account for more than 10% of revenues.

Although GR continues to be profitable, its long-term debt has increased substantially since 2010.[16] Financial management will become more important as competition limits the growth in traffic and puts freight rates under pressure. This may require strengthening the supervisory board of GR in its oversight regarding future capital investments and dividend payouts.[17]

Association Agreement

The EU-AA presents specific challenges with regards to the management of rail network infrastructure and the allocation of track capacity among different railway service providers. While the EU-AA clearly states that it is necessary to separate the management of the infrastructure from the provision of railway transport services, it does not require dividing GR into two separate entities. However, it does set a high standard with regards to the separation of these two activities. This would, at a minimum, require a significant change in the institutional structure of GR, well beyond the current division between the directorates for freight, passengers and infrastructure. The current restructuring efforts by GR have moved in this direction by allocating administrative and financial staff to these three business units.

The AA also requires greater transparency in setting charges and allocating track capacity between competing railway service providers. The introduction of the SAP IT management system will permit greater transparency but external regulation may be required to guarantee that transparency is realized

[15] Georgian Transit LLC, GR Transit Line LLC, Georgian Railway Property Management LLC, Trans Caucasus Terminals LLC, Georgian Railway Construction JSC and Borjomi Bakuriani Railway LLC .
[16] This debt is in foreign currency bonds with its rating linked to the rating of Georgia's sovereign debt.
[17] The supervisory board acts as an independent board of directors with members appointed by the Partnership Fund.

The AA allows for special rules to be introduced for international freight services on a gauge other than that used in the EU. This will be important to allow a transition from the current cross-border agreements between national rail lines to a system of agreements that permit more open competition.

While the deadline to implement the relevant directives will take several years (Annex B), the potential end-user benefits from greater competition in providing railway transport services would argue that this organizational change should be introduced sooner rather than later.

Goals

In Georgia, the primary role of rail transport is carriage of bulk cargo, principally exports from neighboring countries, to the Black Sea ports. Passenger services are limited and there is intense competition from road transport for the carriage of non-bulk cargo. The future success of the railways will depend on its ability to organize reliable freight movements between the Black Sea and the Caspian. The private sector is expected to play a pivotal role in this endeavor, especially through the organization of block train freight services, and tourist passenger services, as well as forwarding services for mixed freight.

The goals of rail transport should focus on strengthening its competitive position, especially as a component of the multimodal TCC. These include:

- Increasing rail's share in transport of non-bulk cargo for both domestic shipments and transit shipments to/from South Caucasus and Central Asia;
- Improving quality and frequency of passenger services;
- Increasing use of rolling stock; and
- Structuring the railway sector to be in conformity with the requirements of the EU-AA.

Mode-specific policies and implementation measures

Since the rail network and rolling stock have sufficient capacity to meet anticipated demand in the medium term, assuming normal maintenance and removal of bottlenecks, the policy focuses on improvements in service rather than infrastructure. These service-related policies include:

1. Increase international movements of freight by rail through Georgia

The routing of rail cargo differs depending on whether it is bulk cargo, where shipments are usually arranged by the producer, and non-bulk cargo, where a forwarder usually arranges shipments as a representative of the shipper or consignee. Both choose a route based on the attributes of the complete movement from origin to destination; in particular, the degree to which that movement is integrated. The critical elements in that integration are the border crossing procedures and the coordination between service providers on either side of the border.

The former is addressed through trade facilitation measures most of which have been introduced on the Georgian side of the border but remain problematic when proceeding across the border to Azerbaijan and beyond to Central Asia. For the latter, there is a critical need for expanding the dialogue on simplifying the cross-border movement of trains with countries to the east and to negotiate bilateral and multilateral agreements that expedite train movements. A related initiative is to improve coordination between the railroads, not only in terms of scheduling train movements and exchange of locomotives but also increasing joint operations and through rates. In this regard, GR has been actively negotiating with Azerbaijan Railway and currently $^{2}/_{3}$ of the freight movements to/from Azerbaijan are made with through rates.

2. Increase scheduled container block trains

Most shipments of bulk cargo are performed with block trains departing according to schedules set by producers or their exporters. However, this is not the case with non-bulk cargoes. At present there are a limited number of scheduled block train operations for containers unloaded at the Black Sea ports and these originate not at the port but at off-dock terminals. Part of the reason for this is the limited volume of container traffic combined with the relatively short travel distances which favor road transport for door-to-door movements. The other reasons are the lack of:

- Attractive pricing and long-term contracts for hook-and-haul services, which would allow private operators to organize sufficient shipments to sustain a block train operation; and
- Modern inland container terminals that offer both efficient intermodal transfers and complementary services including storage and consolidation.

3. Improve intermodal connectivity

The ability of the railways to divert non-bulk cargo from road transport depends on providing a competitive intermodal alternative. This requires:

- Efficient transfer between long-haul rail movement and short-haul road movement. Modern facilities are designed to integrate road and rail systems so as to minimize the turnaround times for trucks and trains.
- A site for this transfer with easy access to the Tbilisi metropolitan area and direct connection to the main railway line. It should also have sufficient area to store empty containers and cargo that is in transit and to accommodate warehousing and other logistics services that will be attracted to the site.

Containers also require efficient transfer between the vessel and rail wagons. In Poti, this is accomplished through a double movement from vessel by road to an off-dock container terminal and from there to a rail siding in or near the terminal. The more common practice is to transfer the boxes directly between the vessel and an on-dock rail facility. The latter is equipped with multiple sidings and dedicated container-handling equipment to ensure a rapid transfer between the train and the the container storage yard behind the berth. Where the vessels operate to a fixed schedule, the loading of the trains can be coordinated with the vessel unloading operations.

With efficient transfers at both ends, it is possible to provide delivery times similar to those of road transport. The challenge is to be cost competitive despite the additional handling charges and the cost for the short-haul road movement.

4. Reduce delays in transit time though rail yards

The reduction in transit times requires not only an increase in the percentage of block train operations but also improvements in the monitoring and planning of wagon exchanges within the rail yard. The latter can be accomplished through increased use of information and communication technology (ITC).

5. Ensure frequency and quality of essential public transport services requiring subsidies

The amount of inter-urban passenger services offered by the GR is relatively limited. These services do not cover full operating costs. Furthermore, there is an increasing supply of modern inter-urban bus services that compete with the railway for inter-urban travelers. While GR is willing to continue

operating this service at a loss, there is no stated objective in terms of the markets to be served, frequency or quality of service to be provided, or price for the service. If the government views this as an essential public service or as an important alternative to road transport, then an arrangement should be made to continue this service under a public service obligation (PSO) agreement that stipulates these various parameters.

6. Increase use of rail passenger services in support of tourism

The passenger services provided by GR include both domestic and international connections. These have an important role in supporting tourism, both international movements and for internal movements between major cities. Current rail passenger volumes are small and seasonal. Tourists from neighboring countries prefer to use their own vehicles to make short visits to one city. Tourists arriving by air are more likely to use the train for intercity trip when it is convenient. The competitiveness of rail depends on the frequency of service, which can be increased though a PSO agreement with government or through the introduction of private rail services.

Improvements in passenger rail services could be coordinated with a program to promote longer-stay, multiple–city visits by higher-end tourists from Europe, North American and Asia. Such a program would require additional investment to upgrade facilities, improve signage and information services, and offer conveniences expected by these tourists.

7. Modify management structure

Under the EU-AA, GR is to separate the activities and assets associated with the network infrastructure from those used to provide freight and passenger services. At present this is done by separating these activities among the three divisions managed by a board made up of directors from all divisions.[18] A more effective arrangement is required to meet the terms of the AA. This does not necessitate the establishment of separate corporations, but will require the formation of semi-autonomous entities. The transport network should be controlled by an infrastructure manager with responsibility for contracting out development and maintenance of the network, setting and collecting access charges, and allocating network capacity among the different transport service providers. The other autonomous bodies would be responsible for providing rail transport services.

These entities could be independent operating units interacting through contractual arrangements. It will be necessary to demonstrate that the resulting allocation of network capacity is transparent and nondiscriminatory. Alternatively, the three entities could be wholly-owned subsidiaries of the GR or separate corporations with a common shareholder. The challenge is to identify the option that allows for efficient operation, fosters greater competition with and among private sector service providers, and provide for effective management of GR finances.

8. Improve utilization of rolling stock

Efforts to improve the profitability of GR must address the low level of equipment utilization. This includes both locomotives and rolling stock. A significant part of the wagons is no longer used. Scrapping of unused equipment would not only free up the resources currently used to store this equipment but also simplify the administration of the fleet. This could be followed by establishing a separate leasing company that would be responsible for both the GR fleet and the wagon interchange with other operators including private sector providers of rail transport services.

[18] This is distinct from the Supervisory Board which is responsible for oversight of the performance of the company.

9. *Enhance network capacity*

Following completion of the railway modernization program and construction of the Baku-Tbilisi-Kars line, it is anticipated that most of the expenditure on the railway network will be for maintenance. Capital investment in the network will be limited given current excess capacity, uncertainty regarding future growth in traffic and limitations on future borrowings by GR. Future investments will be for upgrades in sections of track and rail yards where there are bottlenecks. This will require improvement in monitoring and evaluation of track usage combined with the development of a long-term plan, both physical and financial, for increasing capacity in the network to meet increases in traffic along the different routes.

Benefits

The principal benefits from this policy are:

- *Improving the efficiency of GR which is important for financial sustainability and successful compliance with the terms of the EU-AA*. Given the uncertainty regarding the growth in future traffic and increased competition from private transport service providers with future integration with European rail services, it is essential that GR continue to improve the efficiency of its operations.
- *Strengthening the competitive position of rail vis-a-vis road transport for non-bulk cargo. The ability of the railways to compete effectively with road transport will depend primaril*y on the contribution of private sector providers of rail-related services and the integration of rail transport with road transport and complementary logistics services.
- *Strengthening the competitive position of the rail routes through Georgia for transport of the international trade of Central Asia.* This will depend on integrating the rail services that link Central Asia with the Black Sea and Turkey as well as improving ferry services across the Caspian. Since the private sector is not expected to have a significant role in this activity over the next decade, it will require greater collaboration among the national railway companies and an increase in competition in provision of ferry services across the Caspian Sea.

The future increase in rail traffic depends primarily on two factors: the growth in regional economic activity, including exploitation of natural resources, and the share of the resulting international trade captured by the rail services that pass through Georgia. In this regard, Central Asia represents the greatest opportunity but also the trade with the most alternative routes.

Under an optimistic scenario, the rail transport services in Georgia would be able to achieve a slight gain in market share for domestic and South Caucus trade and a larger gain market share of Central Asian trade, resulting in an 80%-100% increase in traffic over the next decade.

V. Maritime Sector

Challenges

The main challenge for the maritime sector is to develop ports that are reliable, efficient, competitive and tightly integrated with both landslide and waterside transport services. Georgia has been successful in mobilizing the private sector to provide reasonably efficient port services given the available facilities and equipment. However, the introduction of modern assets and improvements in landside and waterside access to meet future demand is still lacking. In this regard, there is some conflict between the interests of the private and public sectors.

In terms of technical regulation, Georgia has demonstrated its ability to address the evolving requirements of international conventions related to safety, security, and environmental protection of the maritime sector.

Based on Cargo Type

The challenges differ depending on the type of cargo. The relatively small volumes of individual dry-bulk trades limit the size of the vessels used and discourage any investment to achieve economies-of-scale. The direct transfer of cargo from the rail wagons to the vessel using traditional quay cranes reduces berth throughput and increases vessel turnaround time.

The situation is different with liquid bulk cargoes. Modern mooring buoys[19] have been introduced together with tank farms that allow larger tankers to be loaded in a reasonable time. The problem is not efficiency but competitiveness since an increasing share of the crude oil is transported by pipelines and bypassing the ports.

For containers, there is a combination of problems beginning with smaller vessels handling limited number of boxes per vessel call caused by strong competition for a relatively limited volume of traffic. Other problems include the lack of reliability in port access and turnaround times and low berth productivity. The movement of the containers through the port is hampered by the lack of backup space and, in the case of Poti, a poorly organized system for transferring containers to/from the off-dock container yards (ODCYs).

Competition

The extent of competition in the port sector is limited. Each of the major ports are controlled by the private sector with one or two companies controlling the activities at the berths. There is no significant interport or intraport competition. On the other hand, the volumes handled in the ports are relatively small, so that the benefits of competition would be unlikely to offset the benefits from economies of scale.

Integration

The coordination between the ports and land transport is limited. In Poti and Batumi, the rail wagons are shunted from the nearby rail yards and there is very little area for storage of containers. In the case of Poti, the linkage between the port and road transport is through the ODCYs.

Reliability

The reliability of the ports is limited by weather conditions in the Black Sea. This is most severe in the port of Poti, where the port is closed for the equivalent of 30-90 days per year. As a result, it is not possible to maintain fixed scheduled services.

[19] SBM Single mooring buoys and CMB conventional multiple point mooring buoys.

Planning

There has been no long-term planning for the development of the port sector in Georgia. The layouts for the ports of Poti and Batumi have changed little over the last half-century. The only plan for development of port infrastructure that includes a marketing study, detailed engineering plan and financial analysis, was prepared by the owner of Poti port for the expansion of the container facility.

Role of Government

The ability of the government to address these problems is limited because the ports are either privately owned or operated under long-term concessions agreements. In this situation, the role of government is restricted primarily to technical regulation.

Association Agreement

Georgia is a party to the same maritime conventions as the EU countries and is largely in compliance with the requirements of these conventions. This was recently confirmed in an International Maritime Organization (IMO) audit. The only concern raised was related to the collection of ship-generated oily residues in ports.

The port owners and/or authorities are responsible for providing and operating their reception facilities. The concern is that these facilities do not have sufficient physical capacity to meet the needs of the vessels calling at the port. The EU directives are relatively clear in relating the performance standards for these facilities to the assessed demand (Annex C). The problem is to agree on this assessed demand. At the same time, the charging system should be reviewed to determine if it meets the requirements of the European Community directives regarding cost recovery, transparency and non-discrimination. In addition, it will be necessary to eliminate the current practice of treating oily wastes as a dutiable cargo.

Goals

The main goals for this transport mode relate to the performance of the ports on the Black Sea as measured in terms of the efficiency of transfer of cargo between the vessel and land transport. The primary goals for this mode are:

- Provide efficient gateways to the TCC with sufficient capacity and minimum weather delays and port closures;
- Ensure adequate provision of roll-on/roll-off and ferry services; and
- Meet requirements of international conventions and the EU-AA with regard to safety, security and pollution control.

The ports at Batumi and Poti are primary gateways for the Trans Caucasus Corridor, other than oil and oil products. These ports need to improve their efficiency and increase reliability to support day-of-the-week container and RoRo shipping services coordinated with scheduled block trains services. Operating drafts and berth throughputs need to be increased to encourage the introduction of larger vessels on the routes served by the port. Additional port capacity—either through expansion of existing ports or development of new ports—should be introduced in line with anticipated growth in demand for port services.

At the same time, the government should encourage the introduction of competing port services or introduce contestability in order to encourage the ports to provide services that are more efficient.

The ports and the vessels they serve must operate in accordance with international conventions concerning safety and pollution control. The government should ensure that port-based facilities are available for enforcement of these conventions.

Mode-specific Policies and Implementation Measures

1. *Encourage private participation in port infrastructure and operations while retaining regulatory power and ensuring public access*

The decision to involve the private sector in the operation of the Georgian ports has resulted in increased cargo-handling efficiency and capacity and some improvement in the existing port infrastructure. However, it has not led to the introduction of modern port facilities except for offshore mooring facilities for liquid bulk.

The common international practice is to limit privatization[20] and long-term concessions to special-purpose ports or terminals located within multi-purpose ports. It is rare that a common-user public port is transferred in its entirely to the private sector because the port is both a public good and a strategic asset.

It is recommended that future ports should be developed under a landlord system in which government not only retains ownership of the land but also exercises general oversight concerning development of port infrastructure and provision of vessel and cargo-handling services. This will require more due diligence in the preparation of concession agreements and a more careful approach to selection of the performance measures to be included in these agreements.

For the existing long-term port concessions, there are opportunities for increasing public oversight as part of a renegotiation that provides mutual benefit to both parties. Full privatization offers fewer opportunities but can be negotiated as part of a broader undertaking to renew or expand port infrastructure and intermodal connections.

2. *Promote interport and intraport competition where practical and efficient*

Competition is an essential mechanism for increasing efficiency and, to a lesser extent, the quality of services provided. Nevertheless, the opportunities for introducing competition within ports has decreased over the last half century with the transition from labor-intensive to capital-intensive cargo-handling and the increase in economies of scale associated with the operation of multi-berth terminals. As a result, the level of traffic required to sustain competition has increased.

In the absence of sufficient traffic to support competition, it is possible to introduce contestability. This is done by expanding the area available for future port development and for public investment in basic infrastructure to level the playing field for new investors.

Where exclusivity is used to encourage a service provider to invest, it is important to limit the period or condition of exclusivity so as not to discourage new entrants to the market when there is sufficient demand.

3. *Improve intermodal integration of port with land transport*

To operate efficiently, a seaport requires direct connection with land transport, generally both road and rail. It also requires sufficient space within the port boundaries to transfer cargo to and from land transport efficiently. A relatively recent trend in the design of container terminals is the provision of on-

[20] Privatization refers to the permanent transfer of public assets to the private sector through a sales/purchase agreement. This may include restrictions on the type of activities that can take place but not the actual activities, who performs them or the right of access to any services provided using these assets.

dock rail facilities that allow containers to be transferred to and from wagons located inside the container terminal.[21] A similar arrangement can be used for bulk cargo provided there is sufficient storage area.[22]

Another connectivity problem is the maintenance for intermodal connections, especially for road transport. The port generates a large amount of truck traffic on the connecting road, much of it involving heavily-laden trucks. This accelerates the deterioration of the connecting roads. It has been observed in other countries that local governments have difficulty maintaining these roads unless they are essential to the flow of municipal traffic. It is important to provide joint planning to limit damage and ensure the roads are properly maintained.

4. Increase reliability of port services and their coordination with other transport services

Reliability has become an essential component in the design of modern supply chains and therefore is critical for the competitiveness of transit corridors. It requires coordination between schedules for the shipping lines and land transport. Container shipping lines have introduced day-of-the-week calls with their time in port determined by berthing windows. Truck arrivals are prescheduled. Block train movements are synchronized with the arrival and departure of vessels. These techniques have been difficult to introduce in Georgia, especially in Poti where the combination of weather-related closures and unorganized movements to/from the ODCYs makes scheduling impossible.

Initiatives to improve reliability require both investment and coordination among supply chain participants. Since the supply chain participants are concerned only with their activities, it is left to government to encourage greater coordination and to monitor the reliability of their combined services. One mechanism that has been used for this purpose with considerable success is Port Community ICT systems (examples include systems in Singapore, Hong Kong, Dubai). These integrate the flow of information regarding cargo that is transferred through the port. Another approach is to establish port community associations that facilitate the interaction between the public and private entities responsible for these cargo movements.

5. Improve productivity and increase operational capacity of existing assets

At present, the ports have sufficient capacity to accommodate a significant increase in both bulk and non-bulk cargoes. They have also the potential to further improve the efficiency and increase the capacity of their operations. Finally, there are opportunities to expand existing facilities and construct new facilities within the port boundaries. The potential increase in capacity at existing ports should be sufficient to accommodate the expected growth in traffic for the next 6-10 years.

The decision to substitute the private sector for the public sector as provider of port services has produced significant gains in productivity but has been less successful in modernizing port facilities. This is reasonable since the volume of traffic did not justify additional investment and there was little reason to believe that an improvement in the quality of service would have led to significant gains in traffic. However, in the medium term, there will be need for such investment.

[21] One such example is the on-dock rail and road transfer facilities included in the plans for the new Poti port container terminal. Another example is the proposed expansion of the backup area for the Batumi container terminal which would include a truck marshaling area.

[22] While a reconfiguration of the rail linkage to Batumi port has been proposed, this does not appear to address the problem of a limited backup area.

Although the government is not involved in the development or operations of the ports, it should support efforts by the private sector to make the necessary investments including constructing berths with greater alongside depth. Government should also monitor port performance to ensure that the improvements in productivity are being achieved, capacity is expanding and the quality of service is improving. The latter is important since the private sector tends to be more interested in maximizing the output of existing assets rather than in investing in new facilities and equipment, even if this results in a reduction in quality of service.

6. *Plan and develop new port capacity*

One of the major changes in ports and shipping over the last century has been the dramatic increase in the size of vessels carrying both bulk and non-bulk cargoes. The layouts of Batumi and Poti ports were designed 40-50 years ago. They have not required much modification since the vessels presently calling at these ports are relatively small. However, as the traffic volumes increase, the size of vessels is expected to increase.[23] Modern facilities will be needed to serve these larger vessels efficiently. These require longer berths, greater alongside depths and larger backup areas to provide short-term storage for cargo.[24]

The proposed development of a deepwater port to serve larger vessels, both bulk carriers and containers, should be integrated into a long-term plan for expansion of port capacity. This plan should incorporate the improvements mentioned above. Because of the significant cost of developing new port facilities and the associated commercial risk,[25] this plan should incorporate an analysis of the demand for deepwater berths which includes:

- A market study that identifies potential sources of growth in demand for and production of bulk and non-bulk cargoes;
- A route comparison to determine the market share that the individual ports would be likely to capture;
- An engineering analysis to determine the best locations and layout based on life cycle cost plus the time required to develop the port; and
- An economic analysis to determine the timing and phasing that will provide the best return on investment to the Georgian economy.

This plan would provide the basis for arranging the PPP in this investment.

7. *Establish vessel traffic management system (VTMS) and upgrade the port reception facilities for ship and cargo-related wastes*

The directives in the EU-AA concerning maritime safety and pollution control follow the guidelines of the international conventions, specifically those of the IMO. However, they also require collaboration among the member states on both issues. In the case of the VTMS, there is the requirement to share information regarding vessels entering and leaving the ports of the member states.

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[23] In the case of containers, there is little interest at present in introducing larger vessels given the level of traffic and lack of direct calls. However, there will be interest in the future, with the size of vessels calling at the container terminals expected to increase at roughly the same rate as the traffic.

[24] At present, the available draft limits the size of vessels to 1,200 TEU. With and increase in depth to 12.5 meters, it is likely that vessels of 2,500 TEU would call at the port. Over time the proportion of 2,500 TEU vessels would increase and 4,000 TEU vessels would be introduced requiring dredging to 13-13.5 meters

[25] The introduction of multipurpose deepwater port rarely generates new traffic but may divert traffic from other ports serving the same hinterland. However, this diversion is dependent on offering not only low-cost coastal shipping but should also be competitive.

With regards to pollution control, there is a requirement to a review and approve the pollution control plans of each member state by the other member states. These plans include an assessment of the capacity and capabilities of the port-based reception facilities for ship and cargo-related wastes and a periodic assessment of the demand expected to be generated by the vessels calling at the port. This information, together with specifications of the collection facility and the procedures for collection and disposal, are included in the pollution control plan submitted for approval by member states. It is then left to the government to ensure that these facilities are available, properly operated, and well-maintained; and to monitor the volume of wastes collected. An oil pollution response contingency plan has been prepared and is awaiting government approval. Efforts to secure approval from both government and the member states should be completed as soon as possible.

8. *Improve enforcement of international conventions related to maritime safety, security and environmental protection*

The MTA has achieved reasonable success in introducing and enforcing regulations to meet the requirements of the various international conventions to which George is a signatory. Current initiatives include new legislation regarding port state control and ISPS, the later with the support of the US Coast Guard. The agency has been able to recruit skilled staff and enhance their capabilities through twinning arrangements, technical assistance, and refresher training courses. The audit conducted by the IMO confirmed the effectiveness of the MTA in meeting the requirements of its conventions. However, the agency will face additional challenges in coordinating with other government entities as the scope of regulations related to security and pollution control expands. This is expected to require additional resources. The MTA should develop a plan for future staffing requirements to meet these challenges and review these with both the government and the port community.

9. *Upgrade seafarer's education and training system and facilitate employment of Georgia seafarers.*

Georgia currently has about 9,000 active seafarers and technical personnel employed in international shipping. The principal training facilities for these skills is the Batumi State Maritime Academy, which collaborates with the State Technical University of Georgia. There are also some private institutions located in and around Batumi that provide technical training. The current capacity of these institutions exceeds demand with the result that a significant portion of those trained do not find employment in the maritime industry. This is not due to problems with the quality of training, although the country lacks a training vessel and students must make alternative arrangement to complete their training at sea. Instead, it is an issue of the international demand where the growth in traffic is being offset by a reduction in crew sizes and increase in vessel capacity. Efforts to sustain this activity are expected to focus on closer collaboration with other countries in the Black Sea and with international shipping lines,

Benefits

The direct benefits from timely expansion of port capacity and increase in the efficiency of cargo handling will be a reduction in turnaround time and cost for moving goods through the ports. Equally important will be the economies of scale obtained by attracting larger, more economical vessels. Perhaps most important will be the increase in reliability achieved through fixed shipping schedules and better integration of the logistics services. These will improve the competitive position of the Trans Caucasus Corridor relative to other routes competing for regional transit cargo.

The introduction of a landlord port model, as commonly used in container ports, would strengthen the government's role in ensuring that common-user port services are provided in a transparent and non-discriminatory manner.

VI. Aviation Sector

Challenges

The aviation sector has performed well over the last decade. Strong growth in traffic is expected to continue. The principal challenges facing the sector are to continue liberalization of the sector, ensure adequate airport capacity and maintain progress on harmonization with EU regulations/directives as part of the Common Aviation Area Agreement (CAA-A) with EU (Annex D).

It is anticipated that the growth in passenger traffic will continue to be driven by tourism, with a smaller contribution from business and friends-and-family travel. This growth will depend not only on providing foreign travelers with an attractive destination but also tapping into new markets by increasing the number of airlines flying to Georgia. It will involve attracting airlines from outside the immediate region, especially from countries whose citizens are interested in higher-value tourism, as well as continuing to expand flights by low-cost carriers.

While airport capacity is sufficient to meet current demand, the development of the terminals presents a challenge in the short-to-medium term. For Tbilisi International Airport, there is a problem of terminal congestion during peak periods that will require expansion of the terminal in the near term. The traffic in Batumi airport has a sharp seasonal peaks which creates a challenging financial environment. For the small airports and airfields, the volume of aircraft and passengers is very small and there are difficulties in providing scheduled services.

There is also the challenge of improving the connectivity between the larger airports and the major urban centers. In Tbilisi and Batumi, the current reliance on under-regulated taxi services provides benefits in terms of costs but also limitations in terms of quality. The opposite applies to the concession for intercity bus services between the airport in Kutaisi and the rest of the country. These connections are important because a tourist's first impression of a country is the airport and the ride from the airport to the final destination.

The challenge facing domestic air transport is lack of competitive advantage. Relatively short travel distances increase the cost and door-to-door travel time relative to land transport modes. At the same time, the quality of intercity bus and rail services is improving. This limits the market for domestic air transport to wealthier and business travelers. While both are expected to increase, the volumes are unlikely to sustain competition or the introduction of more efficient aircraft or services.

A similar situation applies to international air freight. There is limited volume of imports of high-value consumer goods and equipment, which account for a significant proportion of global air freight. In the absence of efficient, cost-effective road-based airfreight transit services, Tbilisi cannot serve as an air freight hub for the neighboring countries.

Association Agreement/Common Aviation Area Agreement

The implementation of regulations and directives included in CAA-A present a challenge in terms of preparing the necessary legislation, but appears manageable, especially given the technical support received from the EU. The currently level of technical proficiency does not appear to be a problem, but there will be increasing demands on the Georgian Civil Aviation Agency (GCAA) as the scope and complexity of regulation in the sector expands.

Goals

The primary goals for aviation are:

- Increase the number of airlines, frequency of service, and capacity offered and expand the number of countries served in order to support the growth in tourism and to facilitate business travel;
- Provide sufficient airport capacity and ATM/ANS to minimize delays to the airlines and provide comfort and convenience to travelling public;
- Ensure conformance with international standards and regulations, stemming from Chicago Convention on International Aviation, and CAA-A; and
- Enhance aviation safety and security.

The first goal requires an increase in the number of bilateral agreements for flights between Georgia and other countries and an increase in the carriers and capacity allowed under existing agreements. The second goal requires monitoring airport performance and expansion of passenger terminals to accommodate average peak hour demand, as well as the provision of sufficient ATM/ANS to cope with growing traffic. The third involves a continuation of current efforts to strengthen technical regulation and oversight. The fourth relates to international efforts to improve the safety and security of air transport.

Mode-specific policies and implementation measures

1. *Increase competition in supply of both international and domestic air transport services*

Ongoing efforts to enter into bilateral aviation agreements should focus on markets that offer the greatest potential for future traffic. Existing agreements that include limitations on the number of foreign carriers and capacity offered should be reviewed and where possible revised. Agreements with countries whose airlines have extensive international networks should be revised to encourage airlines to provide a wider variety of services thereby increasing the connectivity available to both foreign and Georgian tourists and business persons.

2. *Improve accessibility for foreign tourism*

Although there is focus on expanding high-value tourism, it is also important to attract tourists in the medium value sector, especially from Europe and Southeast Asia. Since an increasing portion of these tourists use low-cost carriers such as Ryanair, Easyjet and Air Asia, an effort should be made to attract these and similar airlines.

3. *Increase domestic air transport services*

Given the restrictions on state aid for international aviation services that are included in the CAA-A and the competition from other modes of passenger transport, there is no justification for subsidies for domestic carriers operating on international routes. Efforts to promote domestic aviation through expansion of domestic services and linkages with international services should be justified in terms of their benefits to the economy.

4. *Improve and expand airport infrastructure and ATM/ANS to accommodate growth in traffic*

The airports in Georgia are able to handle significantly larger volumes of traffic by expansion of the passenger terminals and aprons. To increase their capacity in a timely and efficient manner, it is necessary to develop a long-term plan for development of the airport network. This plan should cover not only investments in infrastructure but also land use both within the airports and in the areas surrounding the airports. These plans should include the preliminary design for phased expansion over the next 15 to 20 years. They should take into account future changes in type of aircraft as well as enhanced security requirements.

The ATM/ANS play a crucial role in ensuring that safe, efficient, seamless and expeditious services are provided to air traffic. Therefore, while setting air navigation strategic priorities to meet future growth and implement advanced technologies, the objectives and priorities of the International Civil Aviation Organization (ICAO) global and regional air navigation plans, such as SESAR (ATM Master Plan) should be taken into account and based on regionally agreed strategic actions.

5. Improve efficiency and quality of airport operations

It is important for government to monitor the efficiency and quality of airport services in both publicly and privately operated airports. This requires evaluation of the quality of the airport management. This can include the introduction of KPIs and setting targets for improvements in these indicators In order to monitor the quality of service, customer satisfaction surveys should be conducted and service times measured. The government can also assist in improving the efficiency of the airports through participation in negotiations with the airlines to spread the peak period for arrivals and departures so as to improve utilization of existing airport capacity.

6. Introduce consultative pricing framework

The EU-AA requires cost-based tariffs for airport services, transparency in setting these tariffs and limited differentiation of the rates by category of users. It also outlines the procedure for consultation with the airport users when revising the tariffs and a process for appealing changes in the structure and/or rates after they have been introduced (Annex D, Directive 2009/12/EC). Although this applies only to airports with traffic in excess of 5 million passengers a year, this framework should be adopted by Tbilisi Airport since its reflects modern practice in pricing public services. The recently renegotiated concession agreement stipulates restricted and reserved fees that cover the more important airport charges. Since these rates have already been accepted by the airport users, the proposed framework would apply to future changes in these charges. This will require further negotiation with the concessionaire.

The current procedure for setting the tariffs for air navigation services is through joint negotiation with Eurocontrol in conformance with EC regulation 1794/2006 and Multilateral Agreement relating to Route Charges (signed in Brussels on 12 February 1981).

7. Introduce competition in ground-handling services

A similar problem applies to the requirement for open competition in providing ground-handling services although there are a broader range of possible exemptions. Again this applies only to Tbilisi in the medium term. The modification of the concession agreement to meet the requirement for competition by at least one provider other than the party managing the airport may be met by expanding the role of Georgian Airways or through an alternative arrangement negotiated with the concessionaire

8. Strengthen the capacity of the GCAA to meet growing scope of regulation

Most of the regulations contained in the CAA-A are comparable to the regulations of ICAO, which are currently being enforced by GCAA. However, as the volume of air traffic grows and the scope of regulations related to safety and security expands, the GCAA will need to increase its staff and strengthen its technical skills. At the same time, the funding for foreign technical assistance provided by the EU and EUROCONTROL to upgrade the staff of GCAA and Sakaeronavigatsia is expected to decrease. Advanced technical training will continue to be undertaken at the established training centers in the EU. More administrative and basic technical skills can be provided at local or regional institutes. Furthermore, Georgia can identify specific skills for which it would provide training for both its own citizens and those of regional partners.

9. *Strengthen the independence of the GCAA*

The GCAA is meant to function as an independent regulatory body. For this purpose, it gets a portion of the enroute charges, airport fees per Maximum Take-off Weight (MTOW) and a service fee from the airlines for certification and licensing of aircraft and aircraft operators. However, the latter may introduce conflicts of interest. Since an increase in funding will be necessary to sustain a high level of professionalism, the current GCAA financing structure needs to be reviewed.

Benefits

The aviation sector is essential for supporting the growth in tourism and business travel. The quality of the airport services is often the first exposure a tourist has to the country. These improvements are important for sustaining the growth in tourism and essential for attracting tourists seeking a longer and higher quality tourist experience. It is also important for encouraging business travel and, in the future, for promoting air freight.

VII. Logistics Sector

Challenges

The Georgian logistics sector is in the process of transformation. The expansion of Georgia's foreign trade, including re-exports, together with growth in manufacturing and development of the retail sector and increased demand for outsourcing of logistics have all contributed to a steady growth in demand for qualified logistics services and development of modern warehouse facilities. However, a number of challenges remain ranging from underdeveloped infrastructure to high cost for basic transport and logistics services as well as a poorly educated and badly trained workforce.

Infrastructure and ICT

One of the key challenges facing the Georgian logistics sector is development of logistics infrastructure and ICT. In recent years, Georgia has made tremendous advances in development of road infrastructure, which have lead to reduction in travel time and greater efficiency in road transport. However, there remain a number of infrastructure bottlenecks that need to be eliminated to increase efficiency and reliability, and reduce the cost of logistics services.

First, intermodal infrastructure is underdeveloped. Improving the interconnections between road, rail, and water transport is an important step in improving the efficiency of the transport network. Logistics plays an important role in this integration and also provides improvements in performance that will allow Georgia to attract global enterprises.

Second, modern warehouse infrastructure and ICT are lacking. Most of the existing warehouses in Georgia are characterized by inefficient layout, poor maintenance, outdated equipment and low service levels. The problem is greatest for agricultural warehousing, especially cold storage. The majority of storage facilities are old and unrefurbished that do not meet minimum standards.

Management of inventory is done manually. Automation is limited and warehouse management systems (WMS) are not widely used despite the fact that these are readily available as PC-based systems suitable for small-scale operations. The low level of process automation in supply chains and logistics operations results in errors and inefficient processes. Lack of consistent application of enterprise forecasting practices results in increased inventory costs and reduced service level.

Third, the logistics system in Georgia remains fragmented resulting in poor supply chain performance and relatively high logistics costs. The absence of integrated planning leads to low infrastructure productivity and poor land usage. Promotion and coordinated planning of intermodal infrastructure and logistics centers combined with integrated logistics services and multimodal capabilities can increase the attractiveness of a country as a logistics location.

Logistics services

Existing logistics services in Georgia are very limited. The principal activities in the Georgian logistics sector remain traditional second party logistics (2PLs), i.e. services such as freight-forwarding and simple warehouse operations. They lack the efficiency of international logistics service providers.

There is an emerging demand for outsourcing transportation and logistics services driven by international retailers and distributors. However, the vast majority of companies operating in Georgia continue to rely on in-house logistics foregoing the potential benefits of scale and specialization provided by the third party logistics (3PLs). This is a common problem in countries where the majority of companies continue to rely on traditional management practices. This discourages development of local qualified logistics

service providers. As a result, supply chains using these services are less efficient, thereby reducing the competiveness of local companies.

The evolution towards more sophisticated logistics and integrated value-added services (VAS) is one of the main challenges for the development of Georgia as a regional logistics hub. Expansion of outsourcing and attraction of international 3PL providers can serve as a catalyst for the transformation into a modern logistics service industry. Integration of VAS and supply chain management (SCM) allows companies to improve their profits and increase competitiveness by reducing inventory and increasing the efficiency and reliability. They improve the system for distribution of goods, thereby adding value to the manufacturing and marketing operations.

Human capital

A skilled workforce is critical for sustainable development of logistics sector in Georgia. At present, training in both logistics and SCM are weak at both the practical level, i.e., IT, equipment operations and warehousing, and the strategic level. Improvements in local skills and the adoption of international best practices are critical for the development of logistics sector.

The Georgian government needs to improve the quality of education in logistics and supply chain management to provide the necessary management skills, and increase technical trainings to provide the complementary workforce to meet future market requirements.

Goals

The principal goals for the logistics sector are as follows:

- Develop logistics infrastructure and provide an integration of ICT,
- Improve logistics services and increase efficiency of logistics operations,
- Increase competencies and knowledge in logistics and SCM, and
- Develop Georgia as a regional logistics hub.

Sector-Specific Policies and Implementation Measures

Specific policies and implementation measures for the logistics sector focus on development of advanced logistics infrastructure and improvement of logistics services to promote Georgia's development as a regional logistics hub.

1. Promote use of modern logistic services

The major initiatives to promote modern logistics services and improve the performance and efficiency of transport services are to:

- Encourage participation by international logistics service providers (LSPs) to introduce complex logistics services and improve quality of logistics, and
- Support development of freight consolidation and cross-docking facilities.

For sustainable development of the logistics sector it is important to maintain a competitive market environment. Currently, there are only a few international 3PL service providers able to provide complex contract logistics services. Therefore, it is critical to attract international firms which have the ability to drive innovation in the logistics sector and create value for local and regional trade.

Georgia should take full advantage of its strategic location by developing regional consolidation and distribution clusters that will enable the development of modern freight consolidation and distribution facilities.

With a focus on customer service, manufacturers have moved away from a supply-driven business model to a demand-driven model which reduces inventory carrying costs. Consolidation and cross-docking operations can reduce the costs for distribution to wholesalers and retailers in the South Caucasus market and reduces the delivery times for retailers. The principal benefit of freight consolidation and distribution centers in Georgia has been the pooling of procurement activities and consolidation of shipments to Azerbaijan and Armenia, reducing administrative costs by shipping in a single consignment, rather than multiple deliveries from different vendors.

2. Improve the utilization of ICT and EDI systems

The road freight industry is owned and managed by the private sector and this should continue. However, while international freight haulers are well developed and use modern technologies and logistics to minimize transport costs of distribution, domestic haulers have not yet developed the use of such techniques. The domestic freight industry largely consists of owner-operators with small fleets, often a single vehicle. Freight haulage is often a one-way operation with few backhauls available. Also small vehicles dominate the industry often requiring businesses to receive multiple deliveries at a single destination. Logistics chains in domestic freight distribution need to be strengthened to reduce distribution costs as well as help to reduce traffic congestion and pollution in urban areas. In this respect, there is scope to promote the use of ICT systems for warehouse and fleet management to improve the utilization of freight vehicles.

The introduction of ICT and EDI systems is one of the most important factors for improving logistics operations in Georgia. They improve the efficiency and coordination of supply chain processes. The continuous improvement of the ICT infrastructure in the logistics sector will allow transport and logistics firms to replace paper-based and manual processes with automated processes that speed the flow of information and goods between companies and support the introduction of e-business.

The principal benefits from increased use of ICT and EDI are improvements in:

- Inventory management;
- Vehicle fleet utilization;
- Vehicle routing, and
- Track-and-tracing.

The role of the Georgian government in the ICT integration has been to provide of incentives to encourage transport and logistics enterprises to adopt and implement new technologies in the logistics and SCM.

3. Improve domestic and regional distribution of goods

One of the main objectives of the Georgian logistics sector is to improve both domestic and regional distribution networks. The principal mechanisms for accomplishing this are to:

- Improve cooperation and coordination between participants in the distribution networks,
- Support the introduction of modern SCM techniques and supporting ICT systems, and
- Encourage clustering of logistics services.

The logistics sector is driven by market demand. Shippers and consignees create the demand for new services and improvements to existing services. Willingness to outsource logistics activities combined with the adoption of SCM techniques generates demand for improvements in logistics. While the government can promote outsourcing, the major impetus will come from the producers and retailers.

However, the lack of cooperation and coordination between the providers of transportation and logistics services remain a major barrier to competitiveness and cost-efficiency. The Government can encourage rail and port operators, freight forwarders, LSPs and shippers to form partnerships, strategic alliances, and joint ventures to improve coordination of their services.

Development of logistics clusters in Georgia will significantly improve domestic as well as regional distribution service of goods. Cluster operations allow the balancing of inbound and outbound freight flow, supports improved utilization of transport fleets, increases load factors and shortens routes by combining less-than-full truck loads (LTL) shipments into full truck load (FTL) shipments. This increases the efficiency of the last mile distribution activity, which is usually the most expensive. Logistics cluster can also provide economies of scale which reduce handling costs and reduce damage to the freight.

The Georgian government can facilitate the development of logistics clusters through:

- Performing location studies to identify optimal sites and procure land;
- Identifying potential operators, customers and investors;
- Defining land-use policy, Free Trade Zone (FTZ) regulation;
- Standardizing procedures for logistics cluster planning; and
- Enhancing the connectivity of the sites to the road and rail networks.

4. Enhance Georgia's strategic position as a transit route for regional trade

Georgian Government can play a proactive role in strengthening the competitiveness of a national logistics industry by:

- Providing an institutional framework and regulations to support a competitive market,
- Supporting efforts by local research institutions and related organizations to introduce key performance indicators and metrics and provide a national performance baseline against which to measure future improvements;
- Supporting advance education and training programs in logistics and SCM, and
- Promoting Georgia as a regional logistics hub.

The Ministry of Economy and Sustainable Development (MOESD) should coordinate an integrated effort involving both public and private sector entities. In particular, it should:

- Work with the various governmental institutions and industry to identify key issues and remove unnecessary barriers hindering Georgia's development as a regional logistic hub,
- Identify the development needs of the transport and logistics industry and work with the various governmental institutions and private sector to address those needs, and
- Market Georgia as a regional logistics hub for SCM, transport and logistics activities and support local players to expand on the regional markets.

5. Increase economic returns from transit trade

Logistics can play an important role in increasing the economic benefits from transit trade by adding value to the goods in transit. This can be achieved by:

- Attracting international 3PL providers into the Georgian market,
- Identifying upstream and downstream value addition activities that can be performed in Georgia, and
- Establishing logistics clusters for integration of VAS.

To increase the country's transit potential, Georgia needs to identify opportunities for integration of modern VAS into transit movements. One means of doing this is to attract international 3PLs to the country, thereby adding to the variety of logistics service available.

The introduction of VAS will create opportunities for introducing the assembly of consumer products into the existing transportation and distribution process. This will allow the suppliers to customize products moving through Georgia. This will improve product flow thereby reducing inventories, while enabling customization to fit the needs of customers.

One of the most efficient instruments available to the Georgian government to promote integration of VAS into the transit trade is supporting the development of logistics clusters. These form part of regional and interregional supply chains and increase the competitiveness of the transit corridor.

Benefits

The principal benefits from developing a stronger logistics sector are:

- *Accelerated economic growth:* Logistics sector appears as one of the most important factors of Georgia's economic development. Efficient logistics improves effectiveness of the supply chain and makes it cheaper, which is an important factor for the strengthening of the competitiveness of the country. Logistics facilitates regional trade boosting national income. Finally, well-developed logistics system can drive innovation and contribute to the attraction of global players and development of new businesses.
- *An increase in the value and reduction in the delivered costs for goods:* Development of advanced logistics services and integration of VAS leads to the significant improvement of logistics and distribution operations. Efficient consolidation and distribution operations of freight results in a significant decrease of the transportation and logistics costs, which directly affect a competitiveness of local companies and supports to the GDP growth.
- *Stronger competitive position of Georgia as a transit country and regional logistics hub:* Development of advanced logistics infrastructure and establishment of logistics clusters creates the multi-functionality of operations and increases productivity and competitiveness of Georgia as a regional logistics hub. Provision of VAS have a significant impact on the extension Georgia's capabilities as a logistics gateway for Caucasus and Central Asia offering a wide-range of complex logistics services.

VIII. Transit Corridor

Challenges

The TCC forms part of the Transport Corridor Europe Caucasus Asia (TRACECA) corridor linking Central Asia with Eastern Europe. This multimodal corridor faces a number of challenges not the least of which is competition from alternative routes linking East Asia to Central Asia, the Caspian, and Europe. Each of the alternative routes competes for a portion of the TCC's potential traffic, by offering different combinations of time, cost and reliability. Owing to the multiplicity of trade and commodity flows, no single corridor fully dominates. Each corridor is able to compete for certain commodities and trades. Competition between alternate trade routes is strong, and constant improvement in services is needed to retain and/or increase market share. It is therefore important that the TCC provides a variety of service levels, in terms of time/cost/reliability,, in order to compete effectively in each of its potential markets.

In addition, the competitiveness of the TCC also depends on the quality of services in the adjoining links of the TRACEA corridor. The challenge, as with most multi-country transport/trade corridors, is to coordinate and optimize the performance of multiple service providers in order to provide a seamless flow from one end of the corridor to the other. This requires not only a continuing effort to upgrade the quality of the individual services but also to identify the critical bottlenecks in the corridor and to accomplish both through collaboration with neighboring countries.

The TCC offers multiple routes to the west via Turkey and the Black Sea. To the east it is limited to a single route through Baku to Aktau. It is important to develop new routes and services into Central Asia, e.g. new ferry services between Baku and Turkmenbashi, to compete for additional trade flows. Since much of the infrastructure for these routes has been upgraded or is being developed, a key challenge is to organize and upgrade the services provided along these routes. Efforts to improve and extend these routes require initiatives at the regional level to reduce impediments to cross-border movements and establish a uniform quality of service for goods moving along the corridor.

Goals

While the physical facilities for the TCC have been upgraded, the logistics services along the corridor vary in quality and have yet to be integrated. Without this integration, it will difficult to improve the performance of the corridor and establish a competitive advantage relative to competing routes. The efforts by Georgia to improve the performance of the corridor have two primary goals, namely to:

- Improve the quality of logistics services within Georgia to increase the market share of the transit trade to neighboring counties, and
- Develop an integrated multimodal corridor with seamless connections to corridors connecting to the EU and Central Asia.

Market forces will encourage some level of coordination among service providers operating in the corridor and between the countries along the corridor, but government must take an active role in promoting this coordination and setting standards for the quality of service offered to shippers.

Modal-specific policies and implementation measures

1. Establish a joint public-private effort to improve performance of the TCC

The main difficulty with developing an efficient multimodal corridor is the need to coordinate the activities of individual logistics service providers and various government agencies. International

experience in corridor development has varied. Efforts in North America, Europe, Central and East Asia have focused on the development of infrastructure. Efforts to improve the quality of service are less common. Most have occurred in South Asia and Africa[26] and involved the establishment of a formal initiative by the countries along the route. In the case of single corridors, these were public-private initiatives to coordinate efforts to improve the overall performance of the corridor. They addressed problems related to infrastructure, regulation and trade facilitation.

Similar issues need to be addressed for the TCC. However, the situation is slightly different in that there are a number of competing corridors and the primary objective is to increase the market share for the TCC. The private sector will have a pivotal role in this effort since it provides nearly all of the transport and logistics services for trade in non-bulk commodities. Its primary role will be to improve the quality of these services so as to improve the end-to-end performance of the corridor. The principal role of the public sector will be to develop bilateral efforts to reduce delays at the border crossings and promote competition in the provision of cross-border transport services.

A formal corridor management initiative (CMI) is required to improve collaboration among the stakeholders. This initiative would have three components. This first concerns efforts to improve the quality of service on the section of the corridor located within Georgia. These are discussed in the policies for the logistics sector discussed below. The second involves bilateral efforts to facilitate cross-border movements with neighboring countries. The third focuses on integration of the international corridor extending from China to the Black Sea. This is currently being addressed through a multilateral effort.

The CMI should also coordinate specific efforts to improve corridor performance such as:

- Self-regulation by service providers to harmonize standards for quality of service throughput the corridor;
- Pricing strategies including through-rates, simplified tariff structures and greater transparency in setting rates;
- Harmonization of design and operation of border crossing facilities on both sides of the border; and
- Adjustment in transit fees.

To accomplish these tasks, the CMI requires a small dedicated staff to facilitate communication between the participants, provide information on current performance, identify specific bottlenecks and assess improvements realized through specific efforts.

Another important function of the CMI would be to increase awareness of the capabilities of the TCC both domestically and internationally. Domestically, it is important to recognize the contribution of the corridor to the economy and, in so doing, to strengthen the argument for maintaining the quality of the infrastructure on the corridor and for addressing bottlenecks in a timely manner. Internationally, it is important to increase awareness not only among shippers but also among international transport and LSPs. The latter are able to introduce services that not only improve performance but also increase the VAS provided to users of the corridor.

[26] Specifically in Southern and Eastern Africa including the (i) Trans Kalahari corridor linking Namibia and Botswana, (ii) the Northern Corridor linking Kenya with Uganda and Rwanda, and (iii) the Maputo Development Corridor linking Mozambique with the provinces of Mpumalanga, Gauteng, and Limpopo in northern South Africa.

2. Monitor end-to-end performance

At present, information concerning the performance of the components of the TCC is collected by the service providers for use in managing their activities. Data on time, cost, and reliability for these components is obtained from shippers or freight forwarders but only for a small sample of the traffic. These same sources provide data on the end-to-end performance of the corridor but for a smaller sample that covers relatively few trades. Finally, any information collected on time, cost and reliability for international movements along the TCC has been largely anecdotal.

Among the techniques available for monitoring corridor performance are advanced technologies used to track the movement of goods, to record transit times for vehicles and intermodal connections, and to estimate modal shares and utilization of value-added logistics services for different types of cargo. These techniques require capital investment and supporting institutional arrangements and are unlikely to be available in the short-to-medium term. Instead, performance will be monitored using statistical surveys of typical trades. These surveys should be structured to take advantage of the data currently collected by the corridor's shippers, forwarders and service providers to provide an efficient and sustainable source of information. Confidentiality will be required since this information would be widely disseminated. Various proxies have been developed by the Asian Development Bank, World Bank, UN Conference on Trade and Development (UNCTAD) and others for evaluating the performance of multimodal and multi-country transport systems. These can provide useful insights, but the design of an effective monitoring system for Georgia must be based on data that can be collected from shippers and local service providers.

It is also necessary to collect data on the performance of competing routes. This is a more difficult task since trade on these routes usually involves shippers or service providers that do not operate on the TCC.

3. Conduct research and development in mechanisms to improve corridor performance

Although there is considerable international experience in efforts to improve the performance of selected corridors, this information is not widely distributed. At the same time, the opportunities created by advances in technology are evolving rapidly. Since these are subjects not normally monitored by government or the transport and logistics community, it is left to organizations such as a corridor management unit to conduct research regarding this topic and evaluate possible applications that address the challenges confronting the TCC.

4. Improve performance of TCC border crossings

A critical element of the TCC is the border crossings because of the uncertainty they introduce in terms of the time and especially the cost involved. The success of Georgia in reducing transit time and cost has not been matched by other neighboring countries. Efforts to improve the performance of the border crossing with require a joint effort by the border crossing agencies on both sides of the border supported by a joint agreement between the governments.

Benefits

The potential benefits from improvements in the transit corridor include an increase in the volume of traffic and the opportunity to provide VAS to this cargo. The increase in volume will provide more income for transport service providers especially those involved with seaports. It will also contribute to economies of scale and scope in terms of the international services available to Georgian importers and exporters.

The potential gains from VAS vary with the type of commodities and services but an order of magnitude for those gains would be 5%-15% of the value of cargo.

IX. Pipelines

Georgia is an important transit country for petroleum-related products. Most are transported using pipelines, three in the east-west direction and one in the north-south direction.

- The Western Route Export Pipeline carries crude oil from Baku to Supsa where it is loaded on tankers up to 150,000 DWT using a single point mooring located 5.6 km offshore.
- The Baku-Tbilisi-Ceyhan (BTC) pipeline carries oil to the Mediterranean port of Ceyhan in southeastern Turkey.
- The South Caucasus Pipeline (SCP) delivers natural gas from fields in the Caspian to Erzurum in eastern Turkey.

These pipelines are operated and maintained by an international consortia led by BP. The entity in Georgia responsible for oversight on these operations is the Georgian Oil and Gas Corporation (GOGC), which conducts regular monitoring and evaluation of the safety and security of pipeline activities in coordination with the operating company. It is responsible for rehabilitation works. It also overseas pipeline operations to identify any problems and/or non-compliance with the agreements with Georgia.

A fourth North-South Caucasus Gas (NSGP) pipeline transports natural gas from Russia to Armenia. GOGC is the owner of North-South Gas Pipeline. The Georgian Gas Transportation Company is the operator working on basis of leasing agreement with GOGC.

Challenges

The South Caucasus Pipeline Expansion Project (SCPX) has recently been launched as part of the development of the Southern Gas Corridor and Shah-Deniz phase II. It connects to the the Trans Anatolian Pipeline (TANAP) at the eastern Turkey border which connects to the Trans Adriatic Pipeline (TAP) at the western Turkey border to deliver natural gas from the Caspian resources to Europe. TANAP is planned to commence operations in 2018. This pipeline will carry gas from different sources including Turkmenistan through the planned Trans Caspian Pipeline (TCP) connecting Turkmenbashi and Baku.

Association Agreement

The operation of the pipelines is addressed under Trade-Related Energy Provisions in Chapter 11 of the EU-AA. This assigns to each party the responsibility for ensuring the smooth transit operation of the energy transport facilities. In particular, each party shall:

- Ensure that operators of energy transport facilities take the necessary measures to minimize the risk of accidental interruption or reduction of transit; and
- Expeditiously restore the normal operation of such transit, which has been accidentally interrupted or reduced;
- Take all necessary measures to prohibit and address any unauthorized taking of energy goods in transit through its territory by any entity subject to that party's control or jurisdiction; and
- Establish an early warning system to prevent and respond rapidly to an emergency situation or to a threat of an emergency situation.

Goals

The Caspian region is one of the most important regions in the world for petroleum resources and can be one of the major supplier of oil and gas to European markets. The pipelines are an important component of regional development. The benefits to Georgia include transit fees for oil pipelines and a guaranteed

offtake from gas pipelines at affordable prices for domestic consumption. For future development and operation of these pipelines, the government seeks to ensure:

- Safe and secure operation of the pipelines;
- Minimum environmental impact; and
- A reasonable benefit from right-of-way provided

The first two require the government to continue oversight through its safety management system including improvements in inspection and risk management. This extends to the operations of the port of Supsa. The third can be achieved through negotiations with the pipeline companies but should be preceded by an analysis of the expected benefits.

Mode Specific Policies and Implementation Measures

1. Allow development of pipelines to increase value-added from transit trade

The expansion of the network transporting gas and oil to markets in Europe is important for the economic development of Georgia. It generates benefits in terms of employment, offtake of fuel for the domestic consumption, and transit fees. The development of future transit pipelines should be encouraged to the extent that they provide similar benefits. Government efforts to facilitate land acquisition will be important for expediting this development.

2. Ensure safety and security of pipeline operations

The risk associated with the operation of these pipelines relate to health and safety risks. The principal risk is associated with accidental or intentional damage to the pipelines and the associated environmental impacts. Both the international operators and the government are involved in minimizing these risks. Strengthening this ability is important for domestic distribution as well as for shipments in transit. In compliance with the new commitment, a study will be made of the level of preparedness of relevant technical operators for emergency situations to identify opportunities for improving coordination between them and the state.

Benefits

The pipelines strengthen Georgia's role as a transit country in the region while providing benefits to the economy. The SCPX project is projected to generate $2 billion in foreign investment, and to provide additional offtake of natural gas from the Shah Deniz field.

X. Institutional Structure

The transport policy presented in the previous chapters was prepared for MOESD but affects a broader constituency. Similarly, the action plan presented in the following chapter indicates the breadth of participation required to implement the initiatives associated with this policy. It will be difficult to implement these with the current structure of public governance in Georgia since its involvement in the transport sector is limited in scope.

Scope

This scope refers to the range of responsibilities and activities undertaken by the government that affect the transport sector. In recent years, the focus of public governance has been on development of the national road network. Georgian Railways functions as an autonomous state-owned enterprise with no claim on the public budget. Nearly all of the other transport infrastructure and services are provided by the private sector. Georgia is coming to the end of a cycle of major capital investments in transport infrastructure. Most of the primary network and nodes have been upgraded. The demand for expansion or rehabilitation is expected to be minimal over the next decade. On the other hand, there is an immediate need for improving connectivity through extension of the secondary network to improve access for agricultural production and tourism, and improvement in access to the major urban areas and intermodal connections. At the same time, there is a need to improve the efficiency and effectiveness of the transport and logistics services provided by the private sector, especially with respect to the strategic Trans-Caucasus corridor. However, government collects few performance indicators (KPIs) to monitor and evaluate sector performance. The data collected and analyzed has not kept pace with the planning and policy required by a modern transport and logistics sector.

A review of current institutional arrangements indicated weakness in the following areas:

- Integrated strategic planning;
- Influence of strategic plans and policy on decision-making processes;
- Coordination between the different institutions involved in transport and logistics sector, and
- Availability of staff with the appropriate skills and experience.

There is clear need to strengthen the capacity and responsibility for preparing, implementing and updating a transport strategy that supports the country's economic development and ensures effective coordination among transport and logistics activities. As transport and logistics activities increase in scope, scale, and complexity, some form of economic regulation of these functions will become necessary either through a regulatory body or a national competition authority. At present, there is little or no economic regulation of transport and logistics activities.

Although Georgia has been successful in attracting investment in the transport sector, most of this has been for infrastructure. There is now a critical need to invest in facilities, services and human resources. Priority should be given to the development of capacity in strategic planning and sector monitoring.

There is no explicit policy regarding funding public transport infrastructure and services. While railway and port services and most airport services are financially self-sustaining, the revenues generated from use of the road network are not sufficient to cover their maintenance costs. Also there is no policy regarding the cost of and pricing for transport externalities such as traffic congestion, air pollution or road accidents.

PPPs have featured significantly in development, operation, and maintenance of airport and port infrastructure. However, there is no legal or regulatory framework in place for implementing PPPs through competitive bidding.

Structure

The structure of public governance refers to the organizational framework, specifically the division of responsibilities and activities between a central (apex) agency/ministry and other entities, including subordinate sectoral line agencies. It is important that formulation of policy be followed by implementation. Preparation of an action plan is a first step but implementation requires an enabling environment that includes institutional capacity and adequate funding. An effective enabling environment generally includes:

- Delegation of authority for the implementation of policies – usually to the facilitating ministry and minister approved by the cabinet of ministers;
- Establishment of an institution authorized for monitoring implementation and revising the policy as required, and
- Provision of adequate technical competence within such an institution to provide high level assessment of transport sector performance for policy review.

In the case of the transport sector, the apex institution must establish and maintain a national strategy and formulate policies to help develop and regulate the sector. In the past, this institution focused on efficiency both of infrastructure investments and specific modal services. More recently, its focus has shifted towards improving competitiveness of service quality and reliability and promoting intermodal transport through integration of services.

As a result, the apex institution must undertake:

- Strategic planning for services and network planning for infrastructure;
- Review of planning, feasibility and execution of infrastructure investments;
- Inter-agency and inter-sector coordination;
- Preparation, tendering and performance monitoring of PPP;
- Monitoring and evaluation; including compilation, analysis and publication of comprehensive transport statistics (all modes and activities);
- Review and analysis of sector regulations and international/bilateral transport agreements;
- Oversight for transport safety and security programs, and
- Human resources development and training.

At present, MOESD is the lead ministry for the transport sector. Among its key responsibilities are:

- Overall development of the sector;
- Development, implementation, coordination and monitoring of transport policy;
- Technical regulation of individual modes; and
- Review of development and implementation of infrastructure projects.

However, its role in the provision of transport infrastructure and services is limited. Responsibility for investment in transport infrastructure, especially roads and railway, lies outside the direct mandate of the ministry, while involvement in investment in seaports and airports is limited to negotiation of PPP agreements.

To fulfill its broader mandate concerning development of the sector, MOESD must establish administrative arrangements for coordination with other ministries and their subordinate agencies as well as with the private sector entities providing transport infrastructure and services not subject to ministerial jurisdiction.

Proposals for Restructuring

The transformation of public governance for the transport sector from its current structure to one that is more appropriate to addressing current challenges will necessarily be implemented in stages beginning with strengthening existing functions and broadening the scope of public governance. This involves redefining the mandate of existing entities, revising management structures and job descriptions, recruiting graduates trained in transport planning, implementing a program for human resources development, and establishing a collaboration with technical institutions and consultancies.

In the case of the TPD, it would be important to review its functions and responsibilities and expand its mandate and capacity in the areas of:

- Strategic planning;
- PPPs, and
- Monitoring and evaluation, including compilation, analysis and publication of comprehensive transport statistics (all modes and activities).

This will require additional technical staff as well as a realignment of its divisions to accommodate these activities

The second stage would be consolidation of responsibilities within an existing ministry. The selection of an appropriate ministry should reflect the basic objectives for the sector. With the shift in focus from infrastructure and privatization to competitiveness and economic development, the most appropriate ministry would be MOESD.

The third stage would be the creation of an apex institution specializing in transport. It would assume responsibility for all of the existing public sector functions related to the transport sector. This structure could have various forms but the two most promising are:

- A ministry of transport, and
- inter-ministerial coordination committee for transport and logistics

Separate Ministry of Transport

A vast majority of countries in the world have a cabinet minister for transport.[27] Of those that do not, most are constrained by a numerical cap on number of ministries (less than 10-12) with the result that the transport function is placed in a ministry of infrastructure or public works.

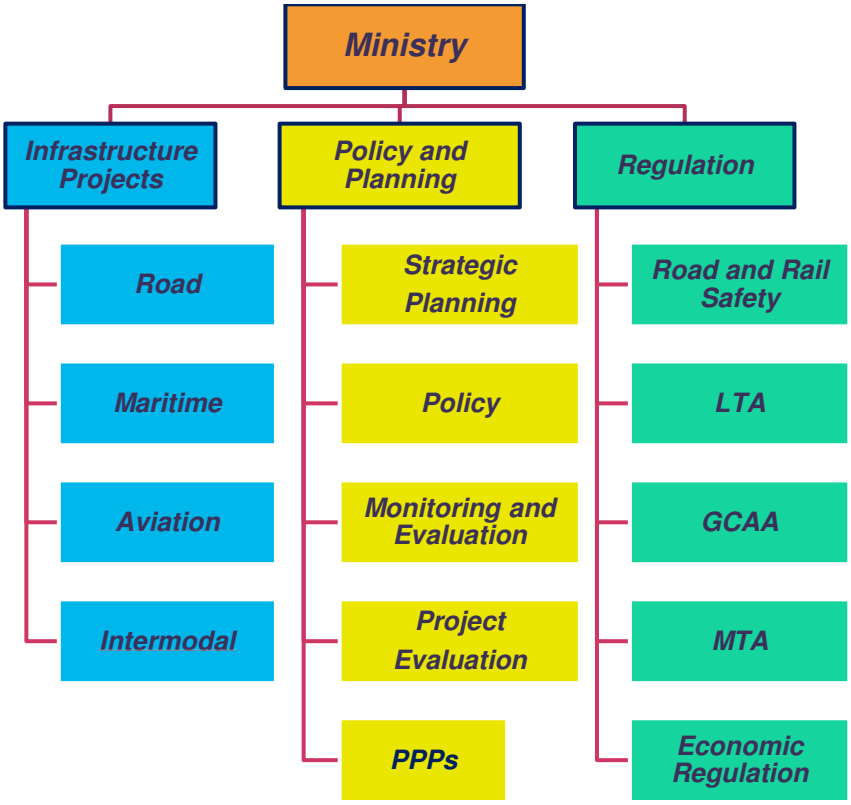
Although Georgia has 16 ministries, the transport sector, which provides a nominal 8% of the GDP and is expected to be a primary facilitator of economy growth, lacks a focal ministry and dedicated minister. As a result, the sector cannot be administered holistically. Instead, different ministries focus on different parts of the transport system.

Georgia disbanded its Ministry of Transport in 2004. As a result, there is no interest in recreating this type of institution not only because it was ineffective but also because the demands of the transport sector

[27] http://www.internationaltransportforum.org/IntOrg/ministers.html

have changed dramatically in the intervening years. This does not obviate the need for an apex institution with a broader scope than that of the various ministries. However, this institution would need to be smaller and more technically focused to address this new agenda. It would subsume the relevant activities of MOESD, MRDI, MIA and add technical capacity in the areas of planning and investment. An indicative structure for such an organization is shown in Figure 4 modelled broadly on the Australian Ministry of Infrastructure and Transport. Most of the right half of this structure already exists in MOESD.

Figure 4: Possible Functional Structure of Ministry of Transport and Infrastructure



If established as a separate Ministry of Transport, this is likely to require approval of Parliament and would require some years to implement. An alternative is to create the apex institution within MRDI, which would be renamed the Ministry of Transport, Infrastructure and Regional Development. This would require a change in the responsibilities of the Ministry with a primary focus given to transport and logistics.

Inter-Ministerial Coordination Committee for Transport & Logistics (IMCCTL);

An inter-ministerial coordinating committee with responsibility for transport was formed but has been inactive for a number of years. A restructured committee with a supporting technical staff could be used to address many of the challenges discussed above. This would take the form of a transport and logistics coordination body, approved and authorized by the Cabinet of Ministers. This inter-ministerial coordination committee for transport & logistics would be chaired by the minister of economy and sustainable development (with responsibility for transport) and made up of representatives (deputy minister level) of concerned government ministries /institutions as well as other (e.g. private sector) stakeholders involved in the transport and logistics sectors. The IMCCTL would have specific decision-making powers

over policy formulation and strategic planning. It would meet regularly to review and evaluate the implementation of transport policy. Decisions that require government action would be submitted to the cabinet for further deliberation and action.

The committee would be empowered to establish working groups (standing sub-committees) to investigate and report on specific topics and issues such as logistics management, intermodal transport facilitation, transport corridor management, PPPs, and so on. MOESD would retain its transports sector functions and the TPD would continue but in the expanded role mentioned above.

XI. Action Plan

A number of initiatives have been identified to support the implementation of the modal policies referred to in the previous chapters. The policies are categorized as A, B and C depending on whether the policy is new, a revision of existing policy or an existing policy. These are given a "+" if some of the proposed initiatives are new. These initiatives are outlined in the following table along with the timeframe, government entities that would be involved in implementation and foreign lenders/investors that might be involved. The majority of these initiates involve changes in either the processes of government institutions and commercial businesses (BP) or in regulations, legislation, and their enforcement (RL). Another common activity is government incentives for changing behavior through promotion, financial incentives, and/or subsidies (PI). Some other initiatives involve capital investment (CX) or strengthening of current government programs (GP). The remaining initiatives involve organization changes such as the reorganization of government corporations (CR), strengthening the technical skills of government organizations (HR), renegotiation of the terms of existing contracts (CN) and negotiation of new international agreements (IA).

The principal forms of foreign participation are donor funding (DF) and technical assistance (TA). There is also potential for outsourcing (O) to foreign firms including PPP arrangements that may involve foreign participants. The time frame refers to the period over which this activity is expected to occur. Short-term (S) refers to 2016-2017, medium-term (M) to 2018-2020, and long term (L) to 2021-2025. Where these initiatives are expected to continue over more than one period, a hyphen is used e.g. S-M refers to 2016-2020.

Table 1: Sector Policies and Related Initiatives

Policy and Category	Related Initiatives	Type of Activity[1]	Foreign Participation[2]	Time[3]	Responsible Govt. Org.
Expand the role of government in planning and evaluation of transport infrastructure A+	• **Develop initial conceptual plan** Prepare a plan for development of the national transport network over the next ten years. The plan would be based on forecast of traffic, modal split and route allocation. The evaluation of alternative options for expanding network capacity including development of the major nodes, would be based on single line drawings and general estimates. This task would be outsourced and the results updated periodically.	BP	TA, O	S-M	MOESD
	• **Organize and empower transport sector planning entity** • **Establish monitoring and evaluation procedures** Establish an entity to manage the planning and evaluation of the projects for network development (Chapter X: Institutional Strengthening). This entity could also be responsible for monitoring the performance of the transport network and evaluating projects intended to remove bottlenecks and expand coverage.	BP, HR			
Improve coordination between government agencies to improve intermodal transport B+	• **Develop strategic plan for coordinating/integrating transport and logistics services** Prepare and periodically update strategies for improving coordination among transport and logistics services in the Trans Caucasus Corridor and for encouraging development of 3PL service providers offering a variety of logistics and value added services. Implementation would be through the private sector with possible incentives from government.	BP	TA		
	• **Negotiate additional intergovernmental agreements for trade facilitation** Promote harmonization of customs procedures with neighboring countries. Utilize electronic data interchange and modern customs systems and procedures. This is a continuation of current efforts of the national customs agencies but with emphasis on modernizing procedures in neighboring countries, potentially with the help of the WCO.	IA			**MOF Revenue Department**
	• **Establish intermodal transfer terminal near Tbilisi** Construct a modern intermodal terminal located near Tbilisi with direct access to main rail line and national highway. This would be an important component of the proposed logistics hub. It would involve a public-private effort with government providing the land and participating in the development of the site. (see Rail action plan for further details).	CX			**MOESD**

Type of Activity: BP = business and government processes and systems, CN = contract negotiation and management, CR = corporate reorganization, CX = capital investment, GP = ongoing government programs, HR = skill enhancement, IA = international agreements, cooperation, PI = Government promotion, incentives, subsidies, RL = regulation, legislation, enforcement

Foreign Participation: DF = donor funding, TA = technical assistance, O = outsourcing, PPP = public-private partnerships

Time Required: S = 2016-2018, M = 2018-2020, L = 2021-2020

Enhance regulatory capacity in transport sector A+	• **Establish regulatory entities** 1) a technical regulatory agency to cover safety and security for road and rail transport 2) an independent economic regulator for the transport sector. • **Define scope and powers of regulators** Whereas the primary function of the current technical regulators in the maritime and aviation sectors is to enforce international conventions, the function of technical regulators in the road and rail sectors will be to enforce local regulations regarding safety and security of transport services (with consideration of requirements set out in relevant directives of the Association Agreement). This function can be performed by a single agency and can be included in the mandate of the Land Transport Agency. For economic regulation, it is necessary to establish an adjudicative process to address anti-competitive practices. This is distinct from current efforts to address anti-competitive practices in public services because of the diversity of services that are provided within a network framework. The specific problems associated with assessing differences in the quality of service provided and the benefits associated with integration. The latter includes not only horizontal integration of services across a network but also vertical integration between sequential services. While this regulatory activity could be performed by the existing Anti-Monopolies commission, it would require a separate unit with expertise in the area of transport services. Alternatively, this regulatory activity it could be performed by an independent jurist selected for his/her familiarity with the sector supported by a small technical staff. Given the size of transport sector, it is not necessary to have separate modal entities. In addition to issues related to anti-competitive behavior, the regulator would be expected to address provisions in PPP agreements that relate to economic performance and the pricing of services utilizing public, common-user, facilities. Initially, it would not be necessary to have a full time regulator but this might change in the future depending on the growth in the sector and concentration of service providers.	RL	TA	**S-M**	**MOESD**

	• **Introduce supporting legislation** • **Determine source of funding** • **Define enforcement procedures** Since these are independent regulators they should be stand-alone entities with their own funding and enforcement powers. They would fall within the oversight of MOESD but operate independently of the Ministry.	RL	TA	**S-M**	**MOESD**
Introduce modern public–private partnership agreements for provision of transport infrastructure and service B+	• **Modify existing laws related to leases, performance-based contracts, concession and sales/purchase contracts** Efforts to develop a PPP law are already underway. This legislation would include the contractual arrangements commonly used in transportation. These would include the landlord model for seaports, airports, logistics clusters etc. and performance-based contracts for construction and maintenance of infrastructure.	RL	TA	**S-M**	**MOESD**
	• **Develop guidelines for entering into PPP agreements** Currently, contracts for development and operation of public infrastructure are developed in an *ad hoc* manner which is determined more by political concerns than local legal precedence or international practices. A process for competitive tendering has evolved but needs to be brought in line with best practices and codified. This process would include: – Preparation of a clear statement of economic objectives as part of the proposal to enter into a PPP agreement – Preparation of a pro-forma agreement for review prior to establishing contact with potential private sector partner – A risk analysis of the pro-forma agreements in order to assign responsibilities and as to mitigate risks – An economic evaluation of the impact on the economy of the proposed agreement taking into account the implications on the pricing and quality of services – A detailed procedure for competitive tendering of concessions consistent with international practices – Provision for public access to the terms of the final agreement The guidelines would include internationally-accepted pro-forma documents together with strategic elements included in typical heads of agreement.be used as reference	BP	TA	**S-M**	**MOESD**
	• **Identify strategic assets** Identify the assets that much remain in public ownership. Introduce government policy and legislation, where required, to retain ownership.	BP		**S-M**	**MOESD**

Introduce performance monitoring for the transport sector A+	• **Define KPIs and data sources** Identify commonly -used performance indices for the main transport activities for each mode, for logistics services, and for transport corridors. Determine the data required to compute these indices and the sources of data or the survey methods used to estimate the values used for computing these indices.	BP	TA	S-M	MOESD
	• **Organize collection and dissemination of performance statistics** Select the KPIs to be reported based on the level of difficulty in collecting the underlying data versus their correlation with productivity/utilization of the mode, route or sector. The information on the trends in value of the KPIs should be widely disseminated using the Internet.	BP			

Table 2: Road Transport: Policies and Related Initiatives

Modal Policies	Related Initiatives	Type of Activity[1]	Foreign Participation[2]	Time[3]	Govt. Org. Involved
Develop primary road network to meet growth in traffic C	• ***Develop long-term road network master plan*** Introduce a framework to set priorities for introduction of new road infrastructure linking zones of economic and social activity over the long term.	BP	TA, O	S-M	Road Department (MRDI)
	• ***Complete E-W Highway and other major roads*** Complete rehabilitation of priority primary roads.	CX	DF	M-L	
Develop secondary and local road network to meet needs of local communities. B	• ***Rehabilitate sections of secondary in poor or bad condition*** Greater emphasis needs to be given to rehabilitating secondary	CX	DF	M	
	• ***Rehabilitate sections of local roads in poor or bad condition*** Greater emphasis needs to be given to rehabilitating local roads.				MRDI, Local Municipal
Improve access to agriculture, industrial and tourism clusters B+	• ***Select major nodes and connecting links for rural development*** Identify collection/distribution points for agricultural production, light industry and rural markets and the secondary roads connecting these to the primary road network	CX	DF	S	MRDI, Local Municipality
	• ***Introduce GIS and supply chain analysis in planning network; develop strategic regional and local planning tools*** Introduce a planning procedure for increasing transport connectivity to provide reliable access and mobility and enable faster economic development. This requires the use of GIS-based spatial planning combined with supply chain analysis to identify network requirements. Funding will be required at both the national and municipal level to rehabilitate and maintain the existing rural road network and to develop additional coverage. Planning capacity must be strengthened at the municipal level.	HR	TA	S-M-L	
Plan and implement a road maintenance program that minimizes overall cost of road transport. B+	• ***Increase resources committed to maintenance of international and secondary roads*** Institutionalize road maintenance in road sector operations and increase funding allocations for these activities in order to maintain roads at a level that will minimize overall cost of road transport and reduce the maintenance backlog that has accumulated due to insufficient resource allocations in the past.	GP	TA	S-M	Road Department
	• ***Introduce performance-based or other type of maintenance contracts where appropriate*** Assess effectiveness of the pilot performance-based maintenance contracts currently being introduced. Based on assessment, consider adopting this contracting system to cover core road network. This will require good leadership from the Roads Department as well as strengthening its technical capacity in road asset management including oversight of performance-based contracting and ensuring adequate allocation of funding. It will also require improving the skills of the private sector contracting industry to manage and implement performance-based contracts. Performance monitoring and results monitoring will also need to be adopted.	GP	DF	S-M	Road Department

Increase road user fees to finance improvements in infrastructure A+	• ***Review sources of revenue available for development and maintenance of the road network*** According to data from the Ministry of Finance revenues from road users cover only 40% of expenditures on the road network. This is low compared to other countries. This imbalance between expenditures and revenues in the sector needs to be addressed. New sources of revenues from users need to be identified, revenues from existing sources need to be increased and these revenues need to be allocated to the provision and maintenance of road assets.	BP	TA	S	Ministry of Finance
Develop inter-city passenger services that are reliable, convenient, safe and affordable. B+	• ***Improve the planning, location and operation of bus terminals.*** Currently, bus terminal operators restrict competition through oligopolistic practices leading to the widespread use of informal terminals. Some degree of regulation of the sector is required to restrict terminal operations to designated facilities and encourage development of modern well-designed terminals while allowing promoting competitive services. The location of the terminals should be consistent with the plans for urban development.	BP	TA, PPP	M	LTA, Municipalities
	• ***Introduce and enforce regulations improving operation of bus stations, vehicles and services*** Technical regulation is also required to improve the quality of bus services, including reliability, convenience, safety and affordability. This should be implemented in a manner that does not discourage competition but excludes illegal operators. To accomplish this, LTA will require greater enforcement authority.	RL	TA	S-M	MOESD LTA Municipalities
	• ***Improve information given to passengers regarding terminal locations, service schedules, fares and ticketing*** Current information available to passengers is limited or non-existent. Schedules do not exist and advanced ticketing is not always available. This information needs to be easily accessible through the Internet, SMS and other media.	PI	TA	S-M	MOESD LTA Municipalities
	• ***Introduce training and certification for bus operators*** Implement a program of training for bus drivers that emphasizes passenger safety. Introduce a mechanism for certifying that buses are operated in in a safe and reliable manner with minimum standards of convenience and cleanliness.	HR		S-M	LTA
Implement a national road safety strategy B+	• ***Create a suitable coordination mechanism to manage and coordinate national road safety activities.*** Give formal approval to the draft national road safety strategy and action plan	BP		S	MOESD MRDI Others
	• ***Improve and standardize road design*** Currently, there are no official road design standards. Instead, various standards from other countries are adopted by consultants engaged for engineering design. Appropriate standards and specifications need to be selected to incorporate modern road safety features.	RL		M	MOESD

Implement a national road safety strategy B+	• ***Establish separate road safety engineering section*** Establish new division in the Roads Department (enhancing the existing unit) and allocate budget for road safety engineering remedial measures	BP		S	Roads Department
	• ***Strengthen accident data collection and analysis systems*** Review existing accident data system to identify areas that need strengthening. Define appropriate safety indicators. Train staff in use of the improved system and any additional equipment needed to support an improved system procured.	BP	TA	S	MIA Patrol Police
	• ***Develop program of promotion and training to improve road user behavior*** Identify stakeholders and a strategy to engage with them. Prepare a communications plan to engage with different stakeholders. Provide resources to implement the plan. Monitor the outcomes.	PI	TA	S-M	LTA MIA Patrol Police
	• ***Strengthen enforcement of traffic laws with tougher penalties for violations*** Review existing road user legislation. Identify areas requiring strengthening identified. Prepare and implement an action plan for revising and introducing new legislation. Identify monitoring indicators and results regularly publish the results.	RL		S-M	MIA Patrol Police
	• ***Implement vehicle testing and certification program*** Introduce a vehicle testing and certification program based on a study that determines: (i) preferred method of implementation -public or private, (ii) mode of implementation (centralized or decentralized), (iii) number and size of testing facilities, (iv) length of agreement, (v) oversight arrangements, (vi) performance indicators, and (vii) phasing of testing criteria.	BP	TA, PPP	M	MIA LTA
	• ***Ensure that commercial vehicles are operated safely*** Commercial vehicle operations will meet international (EU) standards and regulations for commercial vehicle operation including carriage of dangerous goods, conventions on road traffic, road signs and signals, crew working and rest times, and agreements on international routes.	BP		S	LTA
Reduce pollution from road transport B+	• ***Regularly update fuel and emission standards and strengthen enforcement*** The responsible agency will update fuel quality standards and vehicle emission standards at regular intervals and in line with EU regulations and directives.	BP		S-M	Ministry of Environment
	• ***Improve fuel and vehicle testing*** Strengthen enforcement of fuel and vehicle testing programs to ensure standards are being maintained and provide an annual report on enforcement activities for publication	BP		S-M	Ministry of Environment, MOESD, MIA , LTA
	• ***Utilize demand management and regulatory policies to reduce per capita vehicle kilometers and limit production of greenhouse gases*** Adopt proposals and implement plans to mitigate GhGs. This will require action from several agencies at both the national and local level. A multisector committee will be created to undertake oversight and report progress.	BP	TA	M-L	Patrol Police, LTA, Ministry of Environment Municipalities

Harmonize standards for infrastructure and services with major trading partners C	• ***Introduce regulatory functions to meet requirements of EU Regulations*** Implement regulations in the agreed timeframe	RL		M	MOESD

Table 3: Rail Transport: Policies and Related Initiatives

Modal Policies	Related Initiatives	Type of Activity[1]	Foreign Participation[2]	Time[3]	Govt. Org. Involved
Increase international rail movements of freight through Georgia C	• ***Strengthen intergovernmental agreements and joint operation for regional freight movements*** • ***Increase availability of through rates*** The ability to operate block trains between Poti and Baku and to provide a competitive connection between Central Asia and Europe depends on negotiating agreements that facilitate the intramodal connections between the national railways. These agreements address not only the physical connections but also encourage the development of through rates. Significant progress has been made in these efforts but continuation of the process is important • **Improve trade facilitation by simplifying border crossing procedures, and reduce operational costs and transit times** The facilitation of cross-border movements applies not only to customs procedures and the arrangements for exchange of locomotives but also the reduction/elimination of informal payments, which delay wagon movements. Some progress has been made but much more needs to be done especially on the border with Azerbaijan.	IA BP	 TA	S-M S	MOESD GR GR Revenue Services
Increase proportion of container block train services B+	• ***Ensure market access for private block train operators through long-term contracts for hook and haul services*** The private sector has an important role to play in organizing block trains for non-bulk cargoes and marketing these services. To attract the private sector, it is necessary to have not only reasonably strong potential demand but also a predictable supply of locomotives, wagons and track access. Past efforts failed primarily because of a downturn in demand. However, there also needs to provide sufficient discounts from the current tariff to create an incentive for private sector participation. Current practices of the regional railways are not conducive to competition from the private sector and some form of regulation may be required to open the market to private sector competition.	RL, BP		S-M	MOESD GR
Improve intermodal connectivity B+	• ***Construct modern inland container depot (ICD) and on-dock container railway terminal*** Efficient operation of a block train service requires seamless intermodal connections at either end. At the port this would be an on-dock terminal allowing direct transfer between the vessel and the marshalling area for rail cargo. At the other end, there would be an inland container depot allowing direct transfer between the train and trucks used for delivery/collection of the containers. These terminals should be operated by the private sector as common-user facilities. The ICD would compete with an existing terminal established by the Georgian Railways but would have the advantage of being located in a logistics cluster with a more efficient layout. The on-dock terminal would compete with existing off-dock facilities but with better access to the berths.	CX	PPP	S-M	Georgian Railways MOESD Ports Private Sector

Reduce delays in transit time though rail yards C+	• ***Improve ICT systems to manage and monitor wagon movements*** Nearly all non-bulk rail cargoes are transported on mixed freight wagons. These movements require reconfiguration of trains both for movement through the mountains and to distribute the wagons to different destinations. Time spent in these yards increases the delivery time and decreases reliability thereby reducing rail's competitive position relative to road transport. Modern ICT systems can significantly improve the monitoring these movements, reduce delays and provide more accurate estimates of delivery time.	BP	TA	S-M	GR
Improve utilization of rolling stock C+	• ***Undertake fleet rationalization*** Georgian Railways has been modernizing its operations but continues to have a low level of utilization of its rolling stock. Part of the problem is the age of the wagons. A significant portion of the wagons are no longer operational and are left idle on rail sidings. At the same time, there are new wagons that have been ordered but are not operating. It is important to reduce the size of the wagon fleet and focus on improving the utilization of those wagons that are operational.	CX	TA	S-M	
Ensure frequency and quality of passenger services based on benefit to society A+	• ***Establish a PSO agreement (public service obligation) to provide passenger train services and cover subsidies*** Georgia Railways provides a limited number of passenger services and these operate at a loss. Efforts to increase these services in order to promote tourism or provide social benefits should be undertaken through an agreement with government in which losses from the additional services are covered through subsidies set out in the PSO agreement.	PI		L	GOG GR
Increase use of rail passenger services by tourists C+	• ***Improve signage and, information services at stations*** It is important to provide tourists with information not only on available services but also on location and layout of the stations. The stations should provide readily accessible information on the current status of the trains and the location of the platforms in languages commonly used by tourists. The existing electronic signboards should be supplemented with personal information services	PI		S	GR
Modify management structure B+	• ***Establish autonomous entities for provision of infrastructure and services*** The Association Agreement requires that the functions for 1) providing and maintaining the rail lines, 2) operating freight services and 3) operating of passenger services be assigned to separation organizations. However, the nature of this separation is not precisely defined. Georgian Railways has made initial efforts to create autonomous divisions but greater autonomy will be required. Further institutional changes should balance the benefits from opening the services to potential competition with the managerial challenges of subdividing a small rail company into independent units.	CR	TA	M	MOESD, PF GR

Table 4: Sea Transport: Policies and Related Initiatives

Modal Policies	Related Initiatives	Type of Activity[1]	Foreign Participation[2]	Time[3]	Govt. Org. Involved
Encourage private participation in port infrastructure and operations while retaining control of strategic assets and ensuring public access A+	• ***Strengthen role of government in provision of port facilities and ensuring the quality of port services*** The existing agreements between the government and the operators of the ports of Poti and Batumi are a sale/purchase agreement and long term concession, respectively. Neither provides the government with the ability to influence the quality of service or capacity of the facilities in order to enhance the competitiveness of Georgia's trade including the transit trade in the Trans Caucasus corridor. However, this relationship can be modified to the mutual benefit of both parties through negotiation. Opportunities for restructuring the current relationship include those occasions when investment in complementary public infrastructure is required, as the case in Poti, or when there has been a significant change in the demand for port service as is the case in Batumi. The government can also encourage improvement in port services by facilitating the interaction between the port management and the port users	CN	TA	S-M	MOESD
	• ***Retain control of strategic port assets*** The common international practice is for the government to retain ownership of the land on which the port is located but to enter into lease arrangements with periods ranging from a few years to 50 years or more and a BOT arrangement that applies to infrastructure or superstructures constructed by the private party. In addition, the government assumes responsibility for providing and maintaining sufficient access to the port so allow efficient operations.	CX	PPP	S-M	MOESD
Promote interport and intraport competition where practical and efficient A+	• ***Limit exclusivity of existing service providers*** It is common to grant to new concessionaires a period of exclusivity that limits competition so that they can recover their investment. However, this period should be for a limited period which is shortened if a specific level of traffic is achieved before the period end.	CN	PPP	M	MOESD
	• ***Provide core infrastructure to level playing field for new entrants*** It is common practice to offer similar terms to new concessionaires as were offered to earlier concessionaires with whom they will compete. However, this places new entrants at a competitive disadvantage, especially where significant capital investment is required. The earlier entrants only have to cover the cost of depreciated assets. In this situation, government may invest in some of the core infrastructure.	CX	DF	L	GOG

Improve intermodal integration of port and land transport B+	• ***Upgrade and expand road and rail access*** Increasingly, port capacity is limited not by water access but by land access. This is very common in the case of urban ports where the road network is increasingly congested and rail yards cannot be expanded. The public sector is usually responsible for the improvements in landside access although this can be offset by user charges especially where a dedicated link must be constructed. Batumi port has this problem for both road and rail access if the volumes are to be expanded. Poti will have this problem once the current expansion is completed.	CX	DF	S-M	MRDI GR
Increase reliability of port services and coordination with other transport services B+	• ***Organize port community and develop PORTNET ICT system*** The efficient movement of cargo through a port requires a coordinated effort by port operators, customs and other border control officials, shipping lines, forwarders and shippers/consignees, among others. The increasing use of ICT systems to process the documentation associated with this movement allows the development of port community systems that provides electronic data interchange between the parties. This simplifies, expedite and monitors the necessary transactions. However, the development of such a system requires leadership from the public sector. • ***Configure approach channel to minimize weather-related delays*** The principal problem confronting Poti port and, to a lesser extent, Batumi port is extreme weather conditions during the winter months that requires the ports to cease operations for extended periods. The creates congestion in the port and prevents coordination in the movements of sea and land transport. The design of the approach channels and selection of berth handling equipment can significantly reduce this problem. The proposed realignment for Poti port will significantly reduce the number of days lost due to weather. Additional measures will be needed to increase the reliability of vessel operations to prevent congestion and improve coordination between water and land transport. • ***Introduce berthing windows, scheduled train services*** Once the occurrence of weather-related delays has been significantly reduced, scheduled transport services can be introduced. This requires berthing windows for vessels operating to a fixed schedule and block train movements synchronized with vessel arrivals. It allows shippers and consignees to establish fixed delivery dates thereby reducing inventory costs and the slack time introduced in delivery schedule.	BP CX BP	TA PPP	M M M	MTA Revenue Department Ports
Improve productivity and increase operational capacity of existing assets C+	• ***Monitor and evaluate port performance*** • ***Introduce targets for performance including growth in productivity*** An important measure of the quality of port services is berth productivity which affects both port capacity and the turnaround time for vessels in port. Cargo dwell time is an important measure of the productivity of port storage. Planning future port expansion should take into account both current and expected improvements in productivity. These metrics should also be included in PPP agreements to prevent a deterioration in quality of service. Reporting and evaluation of these and other performance metrics should be done on a monthly basis.	BP	TA	S	MOESD MTA

Upgrade port reception facilities for ship and cargo-related wastes C	• ***Review pollution control plan and adequacy of reception facilities for ship waste*** The requirement for reception and disposal of ship wastes including oil wasters is stipulated by international conventions. Georgia has had difficulties in implementing these conventions because of customs regulations and disagreements with port operators on the capacity required. These issues need to be resolved as quickly as possible.	RL		S	MTA Ministry of Environment
Upgrade maritime education and training and promote employment of Georgian seafarers C	• ***Strengthen education and training for student seafarers*** The employment of seafarers in international shipping has been an important source of employment for Georgia despite the lack of a national maritime fleet. There are various local institutions providing training, however, expansion of this activity is costly and should be evaluated in economic terms. Opportunities for regional cooperation and specialization should be examined	HR	TA	M	MTA

Table 5: Air Transport: Policies and Related Initiatives

Modal Policies	Related Initiatives	Type of Activity[1]	Foreign Participation[2]	Time[3]	Govt. Org. Involved
Increase competition in supply of international air transport services and expand accessibility for tourist and business travel B	• ***Expand the number of bilateral agreements to countries offering potential tourist and business travelers***. While Georgia has increased the number of its bilateral air service agreements (ASAs) and entered the Common Aviation Area Agreement, there are a number of counties not linked by air to Georgia, which have the potential for increasing tourism and business interactions. MOESD should actively pursue increasing the number of ASAs. There should be no funding issues or political objections to this effort, other than those involving national security. • ***Modify existing bilateral agreements to allow increase in services and competition as demand grows***. Some of the Georgia's ASAs have restrictive requirements on service capacity. This limits the attractiveness of services and *de facto* can stymie the performance of the economy. The adoption of open skies bilateral style ASAs allows flexibility in supply and pricing of international air transport. MOESD should seek to renegotiate ASAs so as to bring them nearer to such 'open skies' agreements. There should be no funding issues or political objections to this.	IA IA		S-M S-M	MOESD GCAA MOESD GCAA
Improve and expand airport infrastructure and air traffic management and air navigation services (ATM/ANS) to meet growth in traffic, changes in aircraft, and passenger convenience C	• ***Facilitate entry of new services*** Provide appropriate airport and complementary facilities to accommodate changes in types of aircraft, traffic patters and support services. This may require modifications to the airport infrastructure and/or changes in operating practices. Funding for this should be provided largely by the private sector, either directly or via concessions, which seems to be in line with political priorities. • ***Manage land use in areas adjoining airport*** Airports can act as important catalysts for economic development involving both domestic and international companies. However, this requires a proactive approach to developing complementary activities within the boundary of the airport, e.g. freight villages, land transport services. It is also important to control land development at the periphery to prevent conflicts with airport operations, e.g. high-rise buildings, residential estates. This requires active engagement by the relevant land-use planning agencies to limit the activities of private sector developers and industry. Funding for these initiatives should come primarily from the private sector, either directly or via concessions, which seems to be in line with political priorities.	RL RL	TA	M L	MOESD UAG MOESD
Improve airport safety and security C	• ***Enhance airport safety and security*** Strengthen the capacity of government institutions to implement the safety and security requirements introduced in international regulation and standards.	BP		S	GoG

Improve efficiency and quality of airport operations B+	• ***Develop performance-based concession agreement for Kutaisi*** At present, there are different arrangements for airport ownership/operations, some are publicly-owned and operated while others operate under concessions. Kutaisi, has enjoyed considerable success in attracting new flights while operating under public sector management. However, additional investments will be required to serve the growing traffic and the increase in operating costs needs to be limited in order to achieve profitability. To achieve these, the option of entering into a PPP agreement should be explored. This agreement would differ from that with TAV, in that it would be performance-based rather than investment-based. On the other hand, if the current management of the airport continues to be successful in attracting traffic and is able to improve its financial performance, the current arrangement could be continued. • ***Conduct and review passenger satisfaction surveys*** Airports are two-sided market serving both airlines and passengers. Airlines have the market power to make their concerns over airport performance, known to officials whereas passengers have no such power. Therefore, passenger satisfaction surveys should be conducted regularly at the main airports and the results made publicly available. It is also important to develop formal passenger liaison structures.	OS BP	TA	M S	MOESD UAG GCAA MOESD UAG GCAA
Reform pricing network A+	• ***Review pricing framework at Georgia's main airports*** In accordance with the Association Agreement, which is linked directly to the Common Area Aviation Agreement, and good practice in pricing public services, the main airports should adopt a consultative approach to the modification of fees and charges, especially those affecting the passengers. The current concession agreement does not provide for this but there has been minimal adjustment in tariffs so this has not been a problem. In the future, it will be necessary to introduce a mechanism for adjusting prices that allows adequate notification and consultation. This policy will be useful when introducing peak pricing to manage demand so as to avoid congestions and reduce the need for additional capacity • ***Adjust source of revenues for GCAA to reduce potential conflicts of interest and risk for sustainability*** The GCAA has a number of formal responsibilities for such things as aircraft/ operators certification for which fees are collected. To avoid possible conflicts of interest, these should not represent a major source of funding for the agency. Overall, to ensure sustainability in GCAA functioning and capabilities better funding mechanism shall be elaborated (e.g. proportion of the passenger fee).	BP GP	TA	S S-M	MOESD GCAA UAG MOESD GCAA

Table 6: Logistics: Policies and Related Initiatives

Modal Policies	Related Initiatives	Type of Activity[1]	Foreign Participation[2]	Time[3]	Govt. Org. Involved
Promote use of modern logistics by domestic retailer/ wholesaler, agro-processing, light industry, as well as logistics service providers A	• ***Encourage participation by international 3PLs*** Entrance of international 3PL service providers into the Georgian market can have a significant impact on quality of logistics services in Georgia and the integration into regional and international logistics networks. Government would create a solid framework for attracting international 3PLs to the local market. To reach this goal, the Georgian government would actively involve its Investment Agency (GNIA) and cooperate with industry associations to identify potential investment projects and to market them to the international 3PLs and their investors, through hosting round tables and participation at the international trade fairs. The industry associations should work with private sector to raise awareness on logistics outsourcing and contract logistics as an efficient instrument to reduce logistics cost and improve quality of logistics.	PI		S-M	MOESD GNIA Business Associations
	• ***Support development of advanced education and training programs in logistics and SCM*** A skilled labor force is an essential component for sustaining development of the logistics sector in Georgia. Government would contribute to promoting cooperation between Georgian and foreign educational institutions in the development of joint educational programs in logistics and SCM at Bachelor's and Master's levels. Government would also assist in establishing vocational education in logistics including short-term certification programs .	PI		S-M	MOESD Ministry of Education
	• ***Establish national logistics organization*** Establish an advisory board to the Minister or Economy and Sustainable Development consisting of industry and academic representatives to provide strategic advice to the government on logistics policy. The main tasks of the advisory board would be the following: - Development of expert's statements on key issues of logistics policy and other related cross-cutting issues; - Preparing opinions on current policy issues; - Recommend actions to strengthen national logistics industry; - Recommend on measures in order to coordinate TL services in Georgia.	PI		S-M	MOESD
	• ***Introduce certification standards for self regulation*** Provide support for efforts by business associations and educational institutions to establish standards and certification for logistics and SCM professionals. These would be based on international standards and supported by encouragement practitioners to obtain international certification	PI		M	MOESD

Increase use of ICT systems B+	• ***Introduce ICT systems for optimizing logistics and distribution (including warehousing*** • ***Increase use of GPS and related ICY systems for fleet management).*** Integration of ICT systems is an essential mechanism for developing modern transport and logistics services and increasing Georgia's competitiveness in trade in logistics services. Government would support the adoption and implementation of this technology in the transport and logistics sector. ICT integration through promotion of IT literacy in the areas of supply chain management and logistics. This would include training in advanced skills through the national education institutions and more basic skills through vocational training. Government would also encourage business leaders to integrate ICT implementation in company development strategies. GPS-based systems are commonly used to manage truck fleet operations thereby increasing both availability and utilization. ICT systems are used for booking individual freight shipments thereby reducing empty backhauls. ICT systems are used for vehicle routing and supporting co-loading. These an other mechanism for improving the utilization of freight vehicles are not yet common in Georgia because of the fragmentation of the trucking industry. Efforts to introduce these technologies should be a central element in the effort to improve freight logistics	BP	PPP	S	
Improve domestic and regional distribution of goods B+	• ***Increase cooperation between participants in distribution networks*** The lack of cooperation and coordination between providers of transport and logistics, services in the supply chains through which domestic and transit trades move limits both efficiency and opportunities for value addition. In cooperation with industry associations, the Government would establish a platform for dialogue to increase the cooperation and coordination among the service providers including public sector service providers. This would be complemented by joint actions based on private-public partnership. One such action would be to form a committee of senior industry, government, academic and consumer representatives to address specific constraints to collaboration and coordination. The committee shall meet at least four times a year with authority to arrange additional meetings as circumstances require.	BP		S-M	
Enhance Georgia's competitiveness as a transit route for regional trade B+	• ***Promote Georgia as a regional logistics and processing hub*** • ***Define a value proposition to attract global producers/ suppliers*** Establish a logistics hub initiative to attract investment in the logistics cluster and the transport and logistics sector and promote integration of Georgia into the global logistics network. Prepare a market analysis to explore potential of Georgia as a preferred logistics location. Identify key factors affecting regional location decisions for manufacturing and trade	PI		S	

Enhance Georgia's competitiveness as a transit route for regional trade B+	• ***Establish modern facilities for freight consolidation and distribution in logistics cluster*** Clustering of transport and logistics (TL) operations creates synergies and increases efficiency in the transactions between manufacturers, traders, LSPs and freight forwarders. An agglomeration of services and processing activities in a logistics cluster would increase productivity and enhance Georgia's competitiveness as a regional logistics hub. The participation of the government is essential for development of a modern logistics both for providing critical infrastructure and for ensuring the efficiency of public services. The government should actively promote the clustering of TL operations acting in partnership with private investors and local authorities. It would support the clustering of logistics operations by: - providing detailed feasibility study of the logistics cluster and securing promising sites for long term development; - facilitating development through a PPP arrangement; - providing road and rail access to the site as well as basic utilities; - establishing bonded areas within the logistics cluster.	CX	PPP	M	
Increase economic returns from transit trade A+	• ***Integrate value-added logistics and processing activities into the logistics cluster*** Value-added logistics services are distinct from the core activities of warehousing, consolidation and forwarding. These are not only the most profitable but also the primary source of competitive advantage. They are important for Georgia because they can capture significant value addition from transit cargo A public-private marketing study would be made to identify opportunities for the provision of VAS and to encourage local and international LSPs to integrate these services into the logistics clusters.	PI	TA, O	S	

Table 7: Pipelines: Policies and Related Initiatives

Allow development of oil and gas pipelines to increase security of supply and the value added from transit trade C	• ***Ensure rehabilitation/development of main oil and gas transport pipelines*** • ***Support development of new transit pipelines, infrastructure for strategic reserves to ensure diversification and flexibility of supply of local markets*** • ***Negotiate favorable tariffs and offtake arrangements***	CN		S-L	MOESD, GOGC
Ensure safety of pipeline operations C	• ***Strengthen inspection and monitoring of the pipelines and measures for risk management*** • ***Implement modern European technical norms and standards to support integration of local market with the regional and international markets***	RL		S-L	GOGC

Table 8: Transit Corridor: Policies and Related Initiatives

Modal Policies	Related Initiatives	Type of Activity[1]	Foreign Participation[2]	Time[3]	Govt. Org. involved
Establish joint public-private effort to coordinate efforts to improve corridor performance A+	• ***Establish public-private collaboration to promote development of Trans Caucasus Corridor (TCC)*** • ***Coordinate pubic and private sector initiatives to improve the TCC's performance*** The TCC faces substantial competition from other corridors for the transit trades to/from South Caucasus/Central Asia except those involving Turkey. Competition is based on transit time, cost and reliability. Different trades vary in the relative importance given to these two factors. In order to gain competitive advantage, the TCC must not only improve its performance in terms of time, cost and reliability but also provide value added services. This will require a joint effort organized by the public and private sector to encourage coordination among the service providers operating in the corridor and discourage actions that benefit individual service provider but have a negative impact on the TCC. This would involve consultation and dissemination of information concerning corridor performance rather than through formal regulation.	BP	TA	S	MOESD
	• ***Conduct research and development mechanisms to improve TCC performance*** This effort would provide leadership in improving the performance of the TCC through innovation based on research regarding international experience and analysis of the special features of the TCC			S-L	MOESD
	• ***Promote awareness of the TCC domestically and internationally*** This effort would include preparation of promotional materials and participation in international meetings as part of an effort to increase awareness of the benefits of the TCC	PI		S-M	MOESD
Monitor end-to-end corridor performance A+	• ***Monitor end-to-end transit time and reliability of TCC relative to competing routes*** The performance of the TCC is measured from border to border up to the point of transfer to the land or sea transport service on the other side of the border. Data on the transit time and cost had been difficult to measure because of the number of transport and logistics services involved. It is now easier to obtain data on transit time and reliability because of the unitization of cargo use of ICT for tracking and tracing shipments, and smart phone apps for monitoring road transport. Data on cost remains difficult to obtain and requires regular surveys with shippers and forwarders. The performance data can be used to monitor improvements in corridor efficiency and integration. It is less useful for comparisons with competing routes since comparable data is not readily available.	BP	TA	S	MOESD
Improve performance of TCC border crossings B	• ***Improve use of ICT to exchange information between border agencies*** The difficulties in crossing land borders impacts transit time, reliability and cost. While Georgia has been successful in modernizing its border clearance procedures, neighboring countries continue with inefficient and non-transparent procedures. Efforts to improve this situation were discussed in Table 1.	BP	TA	S	Revenues Department

Improve performance of TCC border crossings B	• ***Increase coordination in design and operation of border crossing facilities*** Synchronization of operations at border crossings is necessary to reduce delays and prevent congestion. It is also necessary to adjust the number of gates in each direction to balance the throughput for the movements in each direction and to provide adequate spacing for queuing between the two borders to accommodate fluctuations in throughput	CX	DF	M-L	Revenues Department

1. BP - Business and government processes and systems, CN – Contract negotiation and management, CR – corporate reorganization, CX - Capital investment, GP - Ongoing government programs, HR – skill enhancement, IA - International agreements, cooperation, PI – Government promotion, incentives, subsidies, RL - Regulation, legislation, enforcement
2. DF – Donor funding, TA – Technical Assistance, O - outsourcing, PPP-Public Private Partnerships
3. S – 2016-2018, M 2018-2020, L 2021-2020

XII. Annex A: Road Sector

Table B.1 Implementation Status of EU Articles of Association in the Road Transport Sector

Action Required	EU Directive	Implementation Timing[1]		Responsible Agency	Implementation Status
		International	National		
Speed Limitation Devices	Directive 92/6/EEC 10 Feb 1992	2 years	4 years	MOESD:LTA	To be implemented
Vehicle Weights and Dimensions	Directive 96/53/EC 25 July 1996	2 years	2 years	MOESD: LTA	Partly implemented
Road Worthiness Testing	Directive 2009/40/EC 6 May 2009	2 years for buses and trucks	4 years for other vehicles	MOESD: LTA	Partly implemented
Driving Licenses	Directive 2006/126/EC 20 December 2006	Not applicable	4 years	MOI:	To be implemented
Inland Transport of Dangerous Goods	Directive 2008/68/EC 24 September 2008	3 years	5 years	MOESD:LTA	To be implemented
Harmonization of Certain Social Legislation	Regulation (EC) No 561/2006 15 March 2006	Current	5 years	MOESD: LTA	International - completed National – to be completed
Recording Equipment in Road Transport	Regulation 3821/85 20 December 1985	Current	5 years	MOESD: LTA	International – completed National – to be implemented
Minimum Conditions for Social Legislation	Directive 2006/22/EC 15 March 2006	Current	5 years	MOESD: LTA	International – completed National – to be completed
Occupation of Road Transport Operator	Regulation (EC) No 1071/2009 21 October 2009	1 year	4 years	MOESD: LTA	Partly implemented
Working Time of Drivers	Directive 2002/15/EC 11 March 2002	Not applicable	4 years	MOESD: LTA	Partly implemented
Qualifications and Periodic Training of Drivers	Directive 2003/59/EC 15 July 2003	2 years	4 years	MOESD: LTA	Partly implemented
Charging HGVs for Use of Infrastructure	Directive 1999/62/EC 17 June 1999	Only applicable if Georgia decides to impose tolls or charges			Not applicable
Promotion of Clean and Energy-Efficient Road Transport Vehicles	Directive 2009/33/EC 23 April 2009	Not applicable	8 years	MOE	To be implemented

LTA = Land Transport Agency; MOESD = Ministry of Economy and Sustainable Development;
MOI = Ministry of Interior; MOE = Ministry of Environment

[1] The EU Association Agreement was signed on the 30 August 2014.

Source: Government of Georgia

XIII. Annex B: Rail Sector

Association Agreement

One of the principal challenges confronting the railway sector is the harmonization of the institutional structure of the Georgian Railway (GR) with the structure set out in the EU Association Agreement. While there is considerable flexibility allowed under the agreement, the basic objective is to allow fair competition in the provision of rail transport. This requires that a distinction be made between the provision of transport services and the operation of infrastructure and that they be managed separately. While this does not necessarily require the establishment of separate legal entities, it does require a clear separation of business activities. The latter includes not only revenues, cost, assets and employees and management but also clients, contracts, collection of information and decision making.

The infrastructure would be under the control of an infrastructure manager, a body or firm responsible in particular for establishing, managing and maintaining railway infrastructure, including traffic management and control-command and signaling. The infrastructure manager would also be responsible for setting the charges for use of the infrastructure and allocate capacity according to fixed rules. The public sector would retain responsibility for the development of the appropriate railway infrastructure.

The providers of railway transport services would include both domestic and international undertakings. They would be managed according to commercial principles irrespective of their ownership. They would be licensed and granted access to the infrastructure on a non-discriminatory basis. The procedures for granting, maintaining and amending licenses would be transparent and also in accordance with the principle of non-discrimination. Licensing requirements would include matters of good repute, financial fitness, professional competence and civil liability. These undertakings would also be granted the right to access the railway infrastructure in all member states including access to infrastructure connecting maritime and inland ports

For rail traffic with third countries having the same railway gauge but different from the main rail network within the Union, there would be specific operational rules ensuring both coordination between their infrastructure managers and those of the third countries concerned and fair competition between railway undertakings. The provisions contained in cross-border agreements should not discriminate between railway undertakings or restrict the freedom of railway undertakings to operate cross-border services.

An independent regulator would need to be established to both to enforce rules related to non-transparency and discriminatory practices and to act as an appellate body, without prejudice to the possibility of judicial review. The regulator should have a separate source of financing and should be able to enforce its information requests and decisions. It may regulate more than one mode and/or sectors where they have the competence and independence. This regulator may also be joined in organizational terms with the national competition authority.

The regulator would accept appeals regarding the decisions adopted by the infrastructure manager or railway undertaking concerning the:

- process for allocating capacity;
- charging scheme;
- level or structure of infrastructure charges; and
- arrangements for access.

Directive 2012/34/EC
Guidelines for the infrastructure manager when setting charging for access to infrastructure capacity include the following:

- Charging should be set at the cost that is directly incurred as a result of operating the train service;
- This cost should include the congestion cost of increasing levels of utilization and, ultimately, the scarcity of capacity;
- Infrastructure charging schemes should provide incentives for infrastructure managers to make appropriate investments economically attractive;
- a minimum access charge should be levied for infrastructure services that are essential for a railway undertaking to provide a service;
- A mark-up in order to obtain full recovery of the costs on the based on efficient, transparent and non-discriminatory principles;
- Charges may distinguish market segments according to commodity or passengers transported;
- The same charging principles should apply over the entire network; and
- The right to use specific infrastructure capacity in the form of a train path may be granted to applicants for a maximum duration of one working timetable period. For longer periods they may enter into a framework agreement that specifies the characteristics of the infrastructure capacity required but not a specific path in detail.

Infrastructure managers shall ensure that the application of the charging scheme results in equivalent and non-discriminatory charges for different railway undertakings that perform services of an equivalent nature in a similar part of the market and that the charges actually applied comply with the rules laid down in the network statement.

Directive 2008/57/EC on the inter-operability of the rail system within the Community
'Inter-operability' is defined as the ability of a rail system to allow the safe and uninterrupted movement of trains which accomplish the required levels of performance for these lines. The technical specifications for inter-operability (TSIs) sets all the conditions with which an inter-operability constituent must conform, and the procedure to be followed in assessing conformity. They are made mandatory in order to achieve the objectives of inter-operability and are distinct from European standards or specifications.

<u>Regulation 913/2010 concerning a European rail network for competitive freight</u>
This regulation sets out the rules for the establishment and organization of international rail corridors for competitive rail freight as part of the development of a European freight rail network and the entities that would oversee their development. This provides an insight into the function of corridor management units.

These entities would provide an appropriate governance structure for each freight corridor to promote coordination between the member states and their infrastructure managers and provide continuity along the corridor while avoiding duplication with already existing governance structures. They would provide a one-stop shop for requests for infrastructure capacity. They could also provide services to international railway undertakings. The Member States would ensure that these authorities jointly develop a framework for information-sharing and cooperation aimed at preventing adverse effects on competition or safety in the railway market.

It would include a management board which would prepare investment and implementation plans for the corridor. It would provide basic information concerning the allocation of the infrastructure capacity and

evaluate the need for capacity to be allocated to freight trains running on the freight corridor. Also it would assist in coordinating the activities of regulatory bodies for appeals associated with international freight movements

In these endeavors it would be supported by an advisory board including infrastructure managers. Owners of the terminals along the freight corridor and if appropriate sea and inland waterway ports

Status of Implementation of Agreement

Market and infrastructure access

1. Directive 2012/34 of the European Parliament and of the Council of 21 November 2012 establishing a single European rail area

The following provisions of that Directive shall apply:
— Articles 1 to 9;
— Articles 16 to 25;
— Articles 26 to 57.

Deadline: 2022.

2. Regulation (EU) No 913/2010 of the European Parliament and of the Council of 22 September 2010 concerning a European rail network for competitive freight
Deadline: 2019.

Technical and safety conditions, inter-operability

3. Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways
Deadline: 2021

4. Directive 2007/59/EC of the European Parliament and of the Council of 23 October 2007 on the certification of train drivers operating locomotives and trains on the railway system in the Community
Deadline: 2019.

5. Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the inter-operability of the rail system within the Community
Deadline: 2020.

6. Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods
Deadline: 2019.

Other aspects

7. Regulation (EC) No 1370/2007 of the European Parliament and of the Council of 23 October 2007 on public passenger transport services by rail and by road

Deadline: 2018 for provisions regarding public passenger transport services by rail 2018.
The proposal regarding t public passenger transport services by road shall be submitted to the Association Council by 2018

8. Regulation (EC) No 1371/2007 of the European Parliament and of the Council of 23 October 2007 on rail passengers' rights and obligations

Deadline: provisions (except for Articles 9, 11, 12, 19, 20(1), 26) by 2017. The remainder by 2021.

Georgia retains the right to apply Annex I to that Regulation, on the section from the station Gardabani to the station Kartsakhi, to the state border (244 km), after that line is put into operation.

International Conventions

Convention on international customs transit procedures for the carriage of goods by rail under cover of SMGS consignment notes of 1951

SMGS countries parties to the agreement are: Albania, Belarus, Bulgaria, Hungary, Vietnam, Georgia, Iran, Kazakhstan, China, North Korea, Kyrgyzstan, Latvia, Lithuania, Moldova, Mongolia, Poland, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Estonia.
Convention concerning the International carriage by rail (COTIF) concluded in 1980.

Bilateral and Multilateral Agreements

Georgia has signed bilateral intergovernmental agreements in railway transport with Azerbaijan, Armenia, Kazakhstan, Uzbekistan, Russia, Ukraine and Turkey.

The Basic Multilateral Agreement on International Transport for Development of the Europe-the Caucasus-Asia (MLA)
Focus - Agreement about the establishment of the Coordinating Committee for the Development of Trans-Caspian international transport route
Signed by the Georgia in 2015

Development of the Transport Corridor between the Baltic Sea and the Black Sea
Draft agreement on the development of the transport corridor between the Baltic Sea and the Black Sea to develop the transit corridor between the member countries: Lithuania, Latvia, Estonia, Belarus, Ukraine, Bulgaria, Moldova, Poland, Georgia, Azerbaijan and Turkey.

International Organizations

Organisation for Co-operation between Railways (OSJD)
Focus - development of international freight and passenger traffic, creation of common railway transport environment in the Eurasian region, higher competitiveness and an increase in transcontinental railway routes, as well as promotion of technological progress and technical-scientific cooperation in the field of railway transport.
Member from August 1992

Trans-European Railway (TER) Project (ECE)
Focus - Subregional cooperation among Central, Eastern and South-Eastern European countries.
Member from 1996

The international Union of Railways (UIC)
Associated member from October1997

Community of European Railway (CER)
Associate member since 2009

Central Council for Rail Transport of CIS countries and the Baltic States.
Associated member from 2009

Organisation for International Carriage by Rail (OTIF)
Focus - further development of rail transport law, contracts of carriage for the international carriage of passengers and goods (CIV and CIM), carriage of dangerous goods (RID), validation of technical standards and adoption of uniform technical prescriptions for railway material (APTU), procedure for the technical admission of railway vehicles and other railway material used in international traffic (ATMF); Member from 2012

National Rail Regulators

UK

The Office of Rail and Road is the independent regulator for Britain's rail industry. It is an economic regulator for railway infrastructure (Network Rail and HS1); health and safety regulator for the rail industry as a whole – including mainline, metro, tramways and heritage railways across Britain; and the industry's consumer and competition authority. It also has responsibility of independent monitor of Highways England. Its work includes

- regulating the health and safety for the entire mainline rail network in Britain, as well as London Underground, light rail, trams and the heritage sector.
- regulating Network Rail's stewardship of the rail network for the long term – for investors, train companies and their passengers, freight customers and the taxpayers.
- requiring High Speed 1 (HS1) Ltd, the company that has a concession to operate and manage the railway between St Pancras and the Channel Tunnel, to be efficient and perform well.
- ensuring that the rail market is competitive for passengers, freight customers, railway operators and taxpayers.
- ensuring that the rail market is fair – for passengers, freight customers, railway operators and taxpayers.
- processing applications for a track access agreement with Network Rail.
- approving station and depot access agreements.
- providing guidance and forms for railway operators and train drivers.
- offering a one-stop-shop for certain permissions and approvals
- providing a framework and guidance for investing in the railway.

As an independent regulator, ORR operates within the framework set by UK and EU legislation and is accountable through Parliament and the courts. It collaborates with rail infrastructure companies, the Westminster, Scottish and Welsh governments, other safety bodies and companies in the railway industry. It is funded by the rail industry through license fees and safety levies. It publishes data and information about ORR as part of our commitment to transparency.

South Africa

Purpose of Act

1. provide for and promote safe railway operations;
2. encourage the collaboration and participation of interested and affected parties in improving railway safety;
3. recognize the prime responsibility and accountability of operators in ensuring the safety of railway operations;
4. facilitate a modern, flexible and efficient regulatory regime that ensures the continuing enhancement of safe railway operations;

5. promote the harmonization of the railway safety regime of the Republic with the objectives and requirements of the Southern African Development Community for the operation of railways; and
6. further the achievement of such purpose by establishing a suitable regulatory institution.

Establishment of Railway Safety Regulator. A juristic person to be known as the Railway Safety Regulator, comprising of a board, a chief executive officer and staff, is established by this section.

General functions are to:

1. oversee safety of railway transport while operators remain responsible for such safety within their areas of responsibility;
2. promote improved safety performance in the railway transport industry in order to promote the use of rail as a mode of transportation;
3. develop any regulations that are required in terms of this Act;
4. monitor and ensure compliance with this Act; and
5. give effect to the objects of this Act.

Specific functions include:

Issuing and managing safety permits;
Conducting inspections and audits;
Investigating railway accidents;
Developing regulations, safety standards and related documents which form the basis of the regulatory regime;
Issuing notices of non-conformance and non-compliance and, in future, will impose penalties for non-compliance with the Act and safety standards adopted by the Board of Directors of the RSR.

Other Features
Compliance and Monitoring

- Safety Audits and Inspections
- Occurrence Investigations
- Safety Assessments of new works/technology and operational improvements
- State of Safety Reports
- Safety Plans

Enforcement

- Suspension and Revocation of Safety Permit
- Restriction or suspension of an activity (unsafe conditions)
- Directives and Notices
- Lay criminal charge for contraventions
- Penalties (proposed)

European Union (EU)

EU: European Railway Authority (ERA) - ERA was set up to help create an integrated railway area in Europe by reinforcing safety and interoperability. Its main task is to prepare new and updated legislative acts for adoption by the EU Commission and to give technical support to the EU Commission.

France:
L'Autorité de Régulation des Activités Ferroviaires (ARAF) (French) - ARAF is the railway regulation authority in France that is responsible for all aspects of track access regulation.

Establissement public de sécurité ferroviaire (EPSF) (French) - EPSF is the railway safety authority in France and responsible for all questions regarding safety and interoperability of railways.

Germany:
Federal Network Authority (Bundesnetzagentur – BNetzA) (English and German) – BNetzA is the regulatory authority for all regulated sectors in Germany. With regard to railways one of its main tasks is to ensure non-discriminatory track access and track access charges.

Federal Railway Authority (Eisenbahnbundesamt – EBA) (English and German) - EBA is the supervisory, licensing and safety authority for railway and railway undertakings in Germany.

Spain: Administrador de Infraestructuras Ferroviarias (Adif) (English and Spanish)- Adif is the competent authority for all transport sectors in Spain. With regard to railways, it is responsible for safety, licensing and track access regulation.

United Kingdom: Office of Rail Regulation (ORR) - ORR is Britain's railways authority and responsible for safety, licensing and track access regulation.

Latin America and the Caribbean

Argentina: Comisión Regional de Regulación del Transporte (CNRT) (Spanish) – CNRT is the regulatory authority in Argentina in charge of supervising all land transportation (rail, bus and truck – passenger and freight) that falls under national jurisdiction. With regard to railways, CNRT supervises and enforces concession contracts and ensures railway safety.

Brazil: Agência Nacional de Transportes Terrestres (ANTT) (Portuguese) – ANTT is the regulatory authority responsible for highways, railways, passenger and cargo transport and international transport. With regard to railways its main tasks are to supervise concession contracts and the transport of passengers and cargo.

Mexico: Ministry of Communication and Transportation (English) Secretaría de Communicaciones y Transportes (SCT) (Spanish) – SCT is the regulatory authority for telecommunication and transport in Mexico and responsible for railway regulation.

Peru: Organismo Supervisor de la Inversión Privada en Transporte (OSITRAN) (Spanish) – OSITRAN is the economic regulator for the transport sector in Peru. With regard to railways main responsibilities are to ensure non-discriminatory access to essential facilities including railway infrastructure and compliance of concessionaires with the terms and conditions of the railway concessions.

North America

Canada: Canadian Transportation Agency Office des transports du Canada (English and French) – The Agency is the economic regulator within the federal transportation system. It has primary responsibility for carrying out the provisions of the Canada Transportation Act and annexed regulations.

Sources:
http://orr.gov.uk/about-orr
http://ppp.worldbank.org/public-private-partnership/ppp-sector/transportation/railways/shared-use-railway-tracks/regulatory-authorities/regulatory-autho

XIV. Annex C: Maritime Sector

Association Agreement

The directives in the agreement are consistent with the international conventions of IMO which Georgia is currently a signatory to (Table C.1). Most of the directives address the coordination of the Member States in implementing these, especially with regards to State Control.

Table C.1: IMO Conventions that Georgia is Signatory to

International Convention on Load Lines, 1966
International Convention for the Safety of Life at Sea, 1974 SOLAS Prot. 1988
International Convention for the Prevention of Pollution from Ships, 1973, 1978 Protocol (Marpol)
International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978
Convention on the International Regulations for Preventing Collisions at Sea, 1972
International Convention on Tonnage Measurement of Ships, 1969
Merchant Shipping (Minimum Standards) Convention, 1976
International Convention on Civil Liability for Oil Pollution Damage, 1992

Directive 2009/16/EC on Port State control

This covers functions currently performed by Maritime Transport Agency (MTA) involving inspection of vessels calling at the port for monitoring the compliance of ships with the international standards for safety, pollution prevention and on-board living and working conditions. This directive sets out targets for these inspections and sharing of information between Member States regarding the results.

Directive 2005/65/EC and 725/2004 on Port Security

This addresses the preparation of security plans for the ports in accordance with the SOLAS convention and the International Ship and Port Facility Security Code (ISPS). This is undertaken jointly by the Port management and the MTA. The security assessments (PFSA) have been completed and approved. The resulting port facility security plans (PFSP), which include:

- defining all areas relevant to port security,
- specifying the security measures, procedures and actions for each,
- coordinating security measures between for areas with different security characteristics, and
- identifying an organizational structure supporting the enhancement of port security,

have already been prepared and will be shared with other Member States

Directive 2000/17/EC and 2002/59/EC on Vessel Traffic Monitoring System

The purpose of 2002/59/CE is to establish VTMS within the community to improve the safety and efficiency of maritime traffic and the response of authorities to incidents, accidents or potentially dangerous situations at sea. It is also meant to contribute to a better prevention and detection of pollution by ships.

Georgia's existing VTS is located in Kulevi. Given the volume of traffic and potential hazards, there is no need for extending this to the entire coast. At present, these systems are owners and operated by the ports but in coordination with the Harbormasters. These systems are especially important for managing ship calls at seas and are used in combination with meteorological data to restrict entry where weather conditions and wave level are beyond acceptable limits. They are also used to aid search and rescue and pollution control within their surveillance range

The directives require that these systems be operated and maintained. These are subject to audit by the European Maritime Safety Agency. The directives outline a system of computerized exchange of data between the Member States including information on vessels carrying dangerous or polluted goods

Directive 2000/59/EC on Pollution Control

The pollution control requirements in the Association Agreement are consistent with those in the 73/78 Marpol convention but focus on operations n port. The directive "provides a framework for the Member States' uniform and compulsory application of environmental standards, while leaving each Member State the right to decide which implementation tools best fit its internal system." These standards to to apply to all ships calling at a port. The implementation and enforcement involves both the provision of adequate port-based reception facilities for both ship-generated wastes, most notably oily wastes, and cargo residues. The directive requires that these facilities be adequate to meet the needs of the ships normally using the port without causing undue delay to ships. It also set out the principles for recovering the costs of this system through user fees.

A plan for waste reception and handling is to be prepared for each port addressing the following:

- an assessment of the demand based on the ships normally visiting the port;
- type and capacity of port reception facilities;
- procedures for the reception and collection of ship-generated waste and cargo residues;
- the charging system;
- procedures for reporting alleged inadequacies of port reception facilities;
- procedures for ongoing consultations with port users, waste contractors, terminal operators and other interested parties; and
- type and quantities of ship-generated waste and cargo residues received and handled.
- relevant legislation and formalities for delivery;
- methods of recording actual use of the port reception facilities including amounts received and method of disposal

This plan must be assessed and approved by the Member states and reviewed every three years.

Other requirements set out in the Directive are:

- designate appropriate authorities or bodies for performing functions under this Directive;
- ensure that masters, providers of port reception facilities and other persons concerned are adequately informed of the requirements and that comply with them
- provide for cooperation between their relevant authorities and commercial organizations to ensure the effective implementation
- ensure that the formalities relating to the use of port reception facilities are simple and expeditious

The directive also sets out targets for inspections of vessels to enforce the pollution standards

Status of Implementation of Agreement

Maritime safety- flag state / classification societies

1. Directive 2009/15/EC of the European Parliament and of the Council of 23 April 2009 on common rules and standards for ship inspection and survey organizations and for the relevant activities of maritime administrations

Deadline - Implemented

2. Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 on common rules and standards for ship inspection and survey organizations

Deadline - Implemented

Flag State

3. Directive 2009/21/EC of the European Parliament and of the Council of 23 April 2009 on compliance with flag State requirements

Deadline - Implemented

Port State Control

4. Directive 2009/16/EC of the European Parliament and of the Council of 23 April 2009 on port State control (1)

The provisions of that Directive shall apply with the exception of:

- recital (15) of the Preamble of that Directive,
- the fourth indent of point 1 of Annex XII to that Directive (related to the producing of white, grey and black lists of flag states),
- Article 16 of that Directive, related to the access refusal measures to certain ships,
- provisions of that Directive which make specific reference to the Paris Memorandum of Understanding on Port State Control, namely recitals (9), (13), (14), (30), and (40) of the Preamble, points (b) and (c) of Article 1, points 2, 4 and 22 of Article 2, paragraph 2 of Article 3, point (b) of paragraph 2 and paragraph 3 of Article 5, paragraph 3 of Article 7, points (a) and (b) of paragraph 1 and point (a) of paragraph 3 of Article 8, paragraph 3 of Article 10, point (b) of paragraph 1 of Article 13, paragraph 4 of Article 19, paragraph 1 of Article 24, Article 26, point (a) of the first paragraph of Article 32, Article 33, subpoints 1(c)(i) and (ii), 1(d)(i) and (ii), 1(e)(i) and (ii) of point I of Annex I, subpoints 1, 2A, and 2 B of point II of Annex I, point (f) of Annex III, Annex VI, points 2 and 11 of Annex VIII, subpoint 13 of point 3.2 of Annex X, point 1 of Annex XII

Deadline - 2019 with the exception of the list above

Vessel Traffic Monitoring

5. Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system

Deadline - 2018.

EN 30.8.2014 Official Journal of the European Union L 261/303

(1) Repealing Council Directive 95/21/EC of 19 June 1995 concerning the enforcement, in respect of shipping using Community ports and sailing in the waters under the jurisdiction of the Member States, of international standards for ship safety, pollution prevention and shipboard living and working conditions (port State control).

Accident Investigation

6. Directive 2009/18/EC of the European Parliament and of the Council of 23 April 2009 establishing the fundamental principles governing the investigation of accidents in the maritime transport sector

Deadline - Implemented

Liability of carriers of passengers

7. Regulation (EC) No 392/2009 of the European Parliament and of the Council of 23 April 2009 on the liability of carriers of passengers by sea in the event of accidents

Deadline - 2018.

8. Regulation (EC) No 336/2006 of the European Parliament and of the Council of 15 February 2006 on the implementation of the International Safety Management Code within the Community

Deadline - 2017.

Technical and operational rules

Passenger ships

10. Directive 2009/45/EC of the European Parliament and of the Council of 6 May 2009 on safety rules and standards for passenger ships

Deadline - 2019.

10. Council Directive 1999/35/EC of 29 April 1999 on a system of mandatory surveys for the safe operation of regular Ro-Ro ferry and high-speed passenger craft services

Deadline - 2019.

11. Directive 2003/25/EC of the European Parliament and of the Council of 14 April 2003 on specific stability requirements for Ro-Ro passenger ships

Deadline - 2018.

Oil tankers

12. Regulation (EC) No 417/2002 of the European Parliament and of the Council of 18 February 2002 on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers

Deadline - phasing-out single hull tankers will follow the schedule as specified in the MARPOL Convention.

Bulk carriers

13. Directive 2001/96/EC of the European Parliament and of the Council of 4 December 2001 establishing harmonized requirements and procedures for the safe loading and unloading of bulk carriers

Deadline - 2019.

Crew

14. Directive 2008/106/EC of the European Parliament and of the Council of 19 November 2008 on the minimum level of training of seafarers

Deadline – Implemented

Environment

15. Directive 2000/59/EC of the European Parliament and of the Council of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues

Deadline - 2019.

16. Regulation (EC) No 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds on ships

Deadline - 2018.

Technical conditions

17. Directive 2010/65/EU of the European Parliament and of the Council of 20 October 2010 on reporting formalities for ships arriving in and/or departing from ports of the Member States

Deadline - 2019.

Social conditions

18. Council Directive 92/29/EEC of 31 March 1992 on the minimum safety and health requirements for improved medical treatment on board vessels

Deadline - 2018.

19. Council Directive 1999/63/EC of 21 June 1999 concerning the Agreement on the organization of working time of seafarers concluded by the European Community Shipowners' Association (ECSA) and the Federation of Transport Workers' Unions in the European Union (FST) – Annex: European Agreement on the organization of working time of seafarers

Deadline - 2019.

20. Directive 1999/95/EC of the European Parliament and of the Council of 13 December 1999 concerning the enforcement of provisions in respect of seafarers' hours of work on board ships calling at Community ports

Deadline - 2019.

Maritime security

21. Directive 2005/65/EC of the European Parliament and of the Council of 26 October 2005 on enhancing port security

Deadline - 2018 (except those concerning Commission inspections).

22. Regulation (EC) No 725/2004 of the European Parliament and of the Council of 31 March 2004 on enhancing ship and port facility security

Deadline - 2018 (except those concerning Commission inspections)

International Conventions

1. Convention on the international maritime organization, 1948
2. International Convention on Load Lines, 1966
3. Convention on Facilitation of International Maritime Traffic (FAL) 1967
4. International Convention on tonnage measurement of ships, 1969
5. International Regulations for Preventing Collisions on a Sea, 1972
6. The Athens Convention relating to the carriage of passengers and their luggage by Sea (PAL) 1974
7. Convention on limitation of liability for maritime claims, 1976
8. United Nations Convention on the Carriage of Goods by Sea, 1978
9. Convention on the law of the sea 1982
10. International Convention on Salvage, 1989
11. International Convention on Maritime Search and Rescue 1989
12. Agreement on cooperation between the countries of the Black Sea coast of the maritime search and rescue services

Seafarers

13. International Convention on the Protection of Human Life at Sea, 1974, 1988
14. International Labor Organization N 185 "Seafarers' Identity Documents" 2003
15. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978

Pollution

16. International Convention on Civil Liability for Oil Pollution Damage Brussels 1969 (modified 1976 and 1992)
17. International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Brussels 1969
18. Protocol Relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil, London 1973
19. International Convention for the Prevention of Pollution from Ships, 1973
20. International Convention for the Pollution Preparedness Oil, Response and Cooperation, 1990
21. The 1996 Protocol amending the convention on the prevention of marine pollution by dumping of wastes and other matter, 1996
22. Control of ships' ballast water and sediments and management of 2004

Bilateral and Multilateral Agreement

Georgia has signed bilateral intergovernmental agreements in Maritime Transport with Belgium, Denmark, Estonia, Latvia, Cyprus, Malta, Greece, Romania, and Switzerland.

Country Undertakings with Commonwealth of Dominica, Antigua and Barbuda, Australia, Bahamas, Bangladesh, Barbados, Belize, Cambodia, Cayman, India, Indonesia, Israel, Kuwait, Lebanon, Liberia, Mongolia, Marshall Islands, Panama, Azerbaijan, Russia, Saint Christopher and Nevis, Singapore, St. Vincent and Grenadines, Turkey, Ukraine, Uruguay, Vanuatu, Vietnam, Jamaica.

International Organizations

International Maritime Organization (IMO)

MTA has cooperated with the IMO representatives to develop Georgian Maritime Legislation. Member of the International Maritime Organization (IMO) in June 1993.

International Labor Organizations (ILO)

A member of the ILO since 1993

EU – Agreements and Projects

Basic Multilateral Agreement on International Transport for Development of the Europe-the Caucasus-Asia Corridor

TRACECA document establishing the legal basis for the development of economic relations, trade and transport communication in the regions of Europe, the Black Sea, the Caucasus, the Caspian Sea and Asia.

Signed on 8 September 1998

Black Sea Regional projects

SASEPOL project, TRACECA II Maritime Safety and Security, TAIEX and TWINNING.

Maritime Labor Convention (MLC)

MTA has received funding from the EC to prepare the amendments to Georgian Legislation in order to meet the international requirements and standards as contemplated by Maritime Labor Convention of 2006 and the Council Directive 1999/63/EC.

XV. Annex D: Aviation Sector

European Common Aviation Area Agreement (ECAA-A)

The Association Agreement does not introduce any additional directives relevant to the aviation section but makes reference to the regulations/directives and deadlines contained in the Common Aviation Area Agreement between the EU and Georgia signed in December 2010. Implementation of this agreement removes market restrictions, harmonizes Georgia's aviation legislation with EU standards and implements a large part of EU aviation rules. The agreement covers directives and regulations and their associated regulations listed in Table D.1. These cover market access, air traffic management, safety, security, environment, social aspects and consumer protection as presented in the following section.

The schedule for implementation of the directives and regulations is dependent on ratification of the CAA which still requires the approval of four member states (Belgium, Greece, Luxembourg and Slovakia). Two years after ratification the European Commission will evaluation the implementation and application of all the directives and regulations referred to in the agreement with Georgia with the exception of those referring to security. The evaluation of the latter will be performed three years after ratification. Subsequent evaluations will be conducted as necessary until full application of the legislation.

The implementation has been supported through a twinning arrangement between the GCAA and the EU which is continuing under a second phase (Legal Approximation of Georgian Civil Aviation). This arrangement will provide technical assistance to develop a regulatory program for the EU legislation which has not been implemented as well as a system to implement new legislation as it is introduced. Also, substantial support from EU was provided under TRACECA projects. EUROCONTROL's assistance is provided to Georgia since 2011 to support implementation of ATM related requirements.

The principal impact of these regulations and directives on aviation policy is the establishment of an economic regulator and a common cost-based framework for setting charges for airport services, air navigation, and ground-handling.

Directives 2009/12/EC on airport services, 1794/2006/EC on air navigations services and 96/67/EC on ground handling

The directives propose a common charging system for each country.

The directive on airport charges applies to airports handling more than five million passengers but also includes the largest airport in the country. It derives from the ICAO pricing policies that include cost-relatedness, non-discrimination and independent economic regulation. The latter provides recourse for airport managing bodies and airport users to an independent supervisory authority in the event that a decision on airport charges or the modification of the charging system is contested by airport users.

The charges should correspond to the infrastructure and/or the level of service provided. Any differentiation in airport charges should be transparent, objective and based on clear criteria. However, in the event that demand exceeds supply, access should be determined on the basis of objective and non-discriminatory criteria to be developed by an airport managing body.

The airport managing body and the representatives or associations of airport users shall be allowed to enter into negotiations with a view to concluding a service level agreement with regard to the quality of service provided at the airport.

A compulsory procedure for regular consultation between the airport managing body and airport users or the representatives or associations of airport users is to be established with respect to the operation of the system of airport charges, the level of airport charges and, as appropriate, the quality of service provided unless other arrangements are made as part of a multi-year agreement.

Proposals to modify the structure or level of airport charges should be submitted to the airport users not less than four months before they enter into force, unless in exceptional circumstances. The decision or recommendation by the airport managing body would then be published no later than two months before its entry into force. In the event of a disagreement over the decision, either party may seek the intervention of the independent supervisory authority

The independent supervisory authority may delegate (under its supervision and full responsibility) the implementation of this Directive to other independent supervisory authorities, provided that implementation takes place in accordance with the same standards.

Table D.1: Common Aviation Area Agreement (as of August 2015)

Regulation/ Directive	Planned date for of entry into force	
A. Market access and ancillary issues		
Reg. No 95/93 on common rules for allocation of slots	TBD	
Reg. No 96/67 on access to the ground handling market	TBD	Depends on BOT with TAV
Reg. No 785/2004 on insurance requirements for air carriers and airport operators	Q3/2015	Planned with TRACECA II
Dir. No 2009/12 on airport charges	TBD	
B. Air Traffic Management		
Reg. No 549/2004 on the framework for the creation of the single European sky (the framework Regulation)	TBD	To be reflected in new Air Code
Reg. No 550/2004 on the provision of air navigation services in the single European sky (the service provision Regulation)	TBD	To be reflected in new Air Code
Reg. No 551/2004 on the organization and use of the airspace in the single European sky (the airspace Regulation)	TBD	To be reflected in new Air Code
Reg. No 552/2004 on the inter-operability of the European Air Traffic Management network (the inter-operability Regulation)	2015	To be reflected in new Air Code
Reg. No 2096/2005 on common requirements for the provision of air navigation services	2015-2016	
Reg. No 2150/2005 on common rules for the flexible use of airspace	2015-2016	
Dir. No 2006/23 on a Community air traffic controller license	Q4/2014	
Reg. No 730/2006 on airspace classification and access of flights operated under visual flight rules above flight level 195	2015	
Reg. No 1794/2006 on common charging scheme for air navigation services	TBD	
Reg. No 1033/2006 on the requirements on procedures for flight plans in the pre-flight phase for the single European sky	TBD	
Reg. No 1032/2006 on automatic systems for the exchange of flight data for the coordination and transfer of flights between air traffic control units	TBD	
Reg. No 219/2007 on the establishment of a SESAR Joint Undertaking	TBD	
Reg. No 633/2007 on requirements for the application of a flight message transfer protocol	TBD	
Reg. No 1079/2012 requirements for voice channels spacing for the single European sky		
Reg. No 1315/2007 on safety oversight in air traffic management		
Reg. No 668/2008 on common requirements for the provision of air navigation services.	TBD	
Reg. No 1361/2008 on the establishment of a joint undertaking to develop the new generation European air traffic management system (SESAR).	TBD	
Reg. No 29/2009 on requirements on data link services for the SES.	TBD	
Reg. No 30/2009 on requirements for automatic systems for the exchange of flight data supporting data link services are concerned.	TBD	
Reg. No 262/2009 on requirements for the coordinated allocation and use of Mode S interrogator codes for SES.	TBD	
Reg. No 1070/2009 on the performance and sustainability of the European aviation system.	2015-2016	With 1034/2011 and 1035/2011

C. Aviation Safety		
Reg. 3922/91 on the harmonization of technical requirements and administrative procedures	Q4/2017	
Reg. No 216/2008 on common rules in the field of civil aviation and establishment of EASA		Twinning with EASA
Dir. No 94/56 on establishment of fundamental principles governing the investigations of accidents and incidents	Q3/2013	
Dir. No 996/2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (articles 1-12)		
Dir. No 2003/42 on occurrence reporting	Q2/2014	
Reg. No 1321/2007 on the dissemination to interested parties of information on occurrences	2015	
Reg. No 1330/2007 implementing rules for the dissemination to interested parties of information on civil aviation occurrences referred to in Article 7(2) of Directive 2003/42/EC of the European Parliament and of the Council		
Reg. No 1702/2003 on the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organizations	Q4/2016 Q4/2017	Replaced by **Reg. No 748/2012**
Reg. No 748/2012 implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organizations		
Reg. No 2042/2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organizations and personnel involved in these tasks	Q4/2017	
Reg. No 104/2004, No 593/2007, No 736/2006 on the organization of EASA, fees and charges, standardization inspections	TBD	
Reg. No 768/2006 on the collection and exchange of information on the safety of aircraft using Community airports	In force	
Reg. No 2111/2005 on the establishment of a Community list of air carriers subject to an operating ban within the Community	TBD	
Reg. No 473/2006 implementing rules for the Community list of carriers which are subject to an operating ban within the Community referred to in Chapter II of Regulation (EC) No 2111/2005 of the European Parliament and of the Council		
Reg. No 474/2006 establishing the Community list of air carriers which are subject to an operating ban within the Community referred to in Chapter II of Regulation (EC) No 2111/2005 of the European Parliament and of the Council, and as subsequently amended		
Reg. No 1008/2008 on the operation of air services (not a part of Annex III)	Q1/2015	
Reg. No 1178/2011 technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council		
Reg. No 1332/2011 common airspace usage requirements and operating procedures for airborne collision avoidance		
Reg. No 965/2012 technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.		
Reg. No 628/2013 working methods of the European Aviation Safety Agency for conducting standardization inspections and for monitoring the application of the rules of Regulation (EC) No 216/2008 of the European Parliament and of the Council and repealing Commission Regulation (EC) No 736/2006		

D. Aviation Security		
Reg. No 300/2008 on common rules in the field of civil aviation security	Q4/2015	
Reg. No 18/2010 on specifications of national quality control programs in the field of civil aviation Security	2014	
	TBD	
Reg. No 272/2009 and Re. No 1254/2009 on the common basic standards on civil aviation Security and on setting criteria to allow member states to derogate from the common basic standards	TBD	
Reg. No 1254/2009 criteria to allow Member States to derogate from the common basic standards on civil aviation security and to adopt alternative security measures		
Reg. No 72/2010 procedures for conducting Commission inspections in the field of aviation security		
Reg. No 185/2010 detailed measures for the implementation of the common basic standards on aviation security.		
E. Environment		
Dir. No 2006/93 on the regulation of the operation of airplanes covered by Part II, Chapter 3, V1 of Annex 16 to the Chicago Convention	Q4/2014	
Dir. No 30/2002 on the rules and procedures with regard to the introduction of noise-related operating restrictions	TBD	
Dir. No 49/2002 on the assessment and management of environmental noise	TBD	
Dir. No 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity		
F. Social Aspects		
Dir. No 2000/79 on the organization of working time of mobile workers in civil aviation	Q4/2013	
Dir. No 2003/88 on the certain aspects of the organization of working time	TBD	
Dir. No 89/391/EEC introduction of measures to encourage improvements in the safety and health of workers at work.		
G. Consumer Protection		
Dir. No 90/314 on package travel, package holidays and package tours	TBD	
Dir. No 95/46 on the protection of individuals with regard to the processing of personal data and on the free movement of such data	TBD	
Reg. No 1107/2006 on the rights of disabled persons and persons with reduced mobility when traveling by air	Q1/2013	
Regulation (EC) No 2027/97 of 9 October 1997 on air carrier liability in the event of accidents	2015	
Reg. No 261/2004 on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flight	01/09.2012	
Dir. No 93/13/EC unfair terms in consumer contracts		
Dir. No 2001/95/EC general product safety		
H. Other Legislation		
Reg. No 80/2009 on a code of conduct for computerized reservation systems	TBD	
Reg. No 437/2003 statistical returns in respect of the carriage of passengers, freight and mail by air		
Reg. No 1358/2003 C statistical returns in respect of the carriage of passengers, freight and mail by air and amending Annexes I and II thereto.		

International Conventions

1. Convention on International Civil Aviation, Chicago1944
2. International Air Services Transit Agreement, Chicago 1944
3. Aircraft of crimes and some other acts, Tokyo 1963

4. Convention for the Suppression of Unlawful Seizure of Aircraft, Hague 1970
5. Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, Montreal 1971
6. Convention on the Marking of Plastic Explosives for the Purpose of Detection, Montreal 1991
7. Convention for the Unification of Certain Rules for International Carriage by Air, Montreal 1999
8. International Convention for the Safety of Air Navigation of issues, Brussels 1960
9. Multilateral Agreement relating to Route Charges, Signed at Brussels on 12 February 1981.

International Organizations

ICAO (International Civil Aviation Organization)
since 1994.

ECAC (European Civil Aviation Conference)
member since 2005.

EASA (European Aviation Safety Agency)
To provide permanent standardization audits.

EUROCONTROL (European Organization for Safety of Air Navigation)
member since January 2014.

Bilateral Agreements

Bilateral intergovernmental Agreements in Aviation Transport singed with Armenia, Azerbaijan, Belarus, Kazakhstan, Moldova, Russia, Turkmenistan, Ukraine, Uzbekistan, Kirgizstan, UAE, Qatar, Kuwait, China, Israel, Jordan, Switzerland, USA, Egypt, Iran, Turkey and ECAA (European Common Aviation Area)

Work is ongoing on bilateral agreement with Bahrain, Saudi Arabia, the Sultanate of Oman, Vietnam, South Korea, Lebanon, Iraq, India, Pakistan, Singapore, and Seychelles.