



Kingdom of Saudi Arabia
Ministry of Transport

National Transportation Strategy





Kingdom of Saudi Arabia Ministry of Transport

Development of the National Transportation Strategy (NTS)

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Executive Summary

I. Background

In 2002G (1423H) the Ministry of Transport (MOT) was mandated by a Royal Decree to coordinate the development of the National Transportation Strategy (NTS). Through an initial dialogue with all concerned Ministries and agencies, three development phases were identified and a consensus was reached on the Vision and six Strategic Goals. While the Vision addresses the needs for the transport sector in the context of social and economic development, six Strategic Goals outlined principle targets in the fields of Efficiency, Socio-Economic Development, Safety, Environment, National Protection and Security, and Hajj Transport.

Further the development of NTS was structured into three phases to identify (i) Existing Situation and Strategic Framework, (ii) Issues and Challenges, and (iii) Policies and Programmes. While reviewing the existing situation concerned committees and agencies agreed during the first development phase to identify relevant issues and challenges for NTS and to formulate the NTS Policies and Programmes with technical assistance from GTZ experts.

The second NTS development phase started with an extensive dialogue with all participating agencies in order to identify the issues and challenges. The findings and conclusions were documented in the NTS Phase II Report containing 37 Agency Reports and a NTS Comparative Analysis that concluded 114 different issues in five NTS Programme Areas: Transport Infrastructure Development ; Freight Transport Operation and Trade Facilitation; Passenger Transportation; Transport and Traffic Safety; and Environmental Protection. The report was reviewed at the first NTS Workshop held on 27 October 2007G (15 Shawwal 1428H).

Based on the results of Phase II and the discussions at the workshop the GTZ Experts assisted MOT in the formulation of the NTS Policies and Action Programme.

The Final Report recalls the Vision and Strategic Goals of NTS and summarizes the Issues and Challenges. It further provides a set of important policies and a structured Action Programme of six Programme Areas, and finally it outlines implementation mechanisms which shall be embedded within existing administrative and legislative frameworks of the Kingdom. Given the extent and long-term nature of the Action Programme, regular reviews and report mechanisms, as well as review cycles are envisaged to accompany the implementation of NTS.

II. Vision and Strategic Goals

The NTS Vision and the six Strategic goals as adopted during the first development phase are follows:

NTS Vision:

“To develop and maintain a multimodal transportation system, serving the needs of society by ensuring a safe, efficient and technologically advanced transport system that promotes social and economic development and international competitiveness for the Kingdom, and ensures a healthy and secure environment for its citizens.”



Further a set of six strategic goals have been identified during the first phase of NTS Development which present a comprehensive and balanced approach to address the development needs of the Kingdom and the multi-modal aspects of the transport sector.

NTS Strategic Goals

- **Efficiency** - Ensure the sector's technical, economic and financial sustainability by improving overall performance of public and private transport service providers, by reducing governmental involvement in tasks which can be more efficiently executed by the private sector, and by rationalizing existing pricing and cost recovery schemes.
- **Socio-Economic Development** - Support the Kingdoms economic growth and competitiveness, domestically and internationally, and provide good access to all services and mobility for all people.
- **Safety** - Develop and implement a coordinated and comprehensive set of safety improvement measures addressing all aspects of the transportation system to reduce the number of transportation related deaths, to reduce the number and severity of transportation related injuries, and to reduce the economic and productivity losses caused by accidents.
- **Environment** - Minimize the sectors negative impact on the environment through mitigation and avoidance and create environmental awareness in society.
- **National Protection and Security** - Provide a transportation system that capably meets the mobility needs of national defense and security, and natural and man made disasters.
- **Hajj Transport** - Provide a coordinated, multi-modal transport system that meets the unique and special travel needs of Hajj, in a safe and efficient manner.

III. NTS Issues and Challenges

The identification of Issues and Challenges is based on the information of the Agency Reports from which 114 emanating Issues have been compiled into a long list. During this process it became obvious that most of the issues are related to more than one agency, which suggested that NTS Actions and Programmes for resolving those issues require coordinated approaches among the stakeholders. The NTS Analysis also revealed the multiple relationships of Issues with regard to the Strategic Goals. Within this multiple agency and multiple goal environment a third operational dimension is necessary to combine the Issues under operational aspects, and to provide the structure for the Programme Areas.

Therefore the NTS Analysis suggested to group the issues into 6 NTS Programme Areas according to their principle function in transportation and to establish crosscutting areas for prominent issues as follows:

NTS Programme Areas

- 1. Transport Infrastructure Development**
- 2. Freight Transportation and Trade Facilitation**
- 3. Passenger Transportation**
- 4. Hajj Transportation**
- 5. Transport Safety**
- 6. Environmental Protection**



IV. NTS Policies

NTS Policies represent guiding principles which are important across the whole transport sector and most relevant for all Programme areas and actions. These policies address: (i) Shared Responsibilities for Transport Sector Development; (ii) Public and Private Sector Partnership; (iii) Regional Integration and Participation in Global Markets; and (iv) Integrated Development and Operation of Transport Infrastructure.

V. The NTS Action Programme

The NTS Action Programme represents a practical platform to bring about changes and actions that are considered important to achieve the NTS Vision and Strategic Goals. Since NTS cannot and shall not replace existing structures, responsibilities, or proceedings of the public sector, its intention is rather to provide a strong focus through coordinated approaches of concerned agencies and stakeholders, whereby each of the Programme Areas shall generate specific thrust in its particular field and thereby reach towards the common goals.

The substantive structure of the Action Programme takes principle transportation functions into consideration while distinguishing between the establishment and provision of transport infrastructure, freight transport operation and trade facilitation, and passenger transportation. It also considers three prominent interdisciplinary areas that relate to transport and traffic safety, environmental protection, and to the organization of Hajj and Umrah transportation, to which the Kingdom attaches highest priority as they are most important for the society. The Action Programme consists of 28 different actions that are allocated to responsible agencies in the following six Programme Areas:

1. **Transport Infrastructure Development;**
2. **Freight Transportation, Trade Facilitation;**
3. **Passenger Transport**
4. **Hajj Transportation**
5. **Transport Safety**
6. **Environmental Protection**

1. **Transport Infrastructure Development** aims at improving efficiencies of the national transport infrastructure, which can be achieved through better integration of planning processes in support of multimodal transport and through promoting commercialization, private sector participation, and competition for infrastructure facilities. The Programme Actions shall achieve progress towards higher levels of transport infrastructure efficiency and initiate additional impulses for economic growth.

Programme Actions:

- Comprehensive Integrated Transport Infrastructure Planning for Saudi Arabia;
 - Guidelines for Prioritizing of Transport Infrastructure Projects;
 - Development of Intermodal Terminals and Logistics Centers;
 - Harmonized Guidelines for Highway and Road Design;
 - Commercial Management of Transport Services;
 - Comprehensive Transport Statistics System
2. **Freight Transportation, Trade Facilitation** aims at enhancing transport operations in the Kingdom to facilitate international trade, which shall be achieved through promoting Multi Modal Transport, reducing border crossing impediments, strengthening governance and professional capacities, as well as ensuring competition and market access. The Programme Actions shall generate momentum for regional integration of expanding international road, rail, and maritime



transport, and for efficient and integrated transport services to reduce the economic distance between the Kingdom's regions and global markets.

Programme Actions:

- Enhancing Professional Capacities and Competences of National Freight Transport Operators;
- Enhancing the Legal Regimes for International Transport and Trade Facilitation
- Customs Clearance Capacities and Simplified Customs Procedures at Border Points;
- Information and Communications Technology for Efficient Transport Management;
- Multi Modal Transport Development

3. **Passenger Transport** aims at enhancing and further developing passenger transportation comprising urban transport systems and services, Kingdom wide passenger mobility by air, bus and railway, and considers transport aspects for tourism in the Kingdom. This shall be achieved through developing and operating integrated urban transport at city and regional levels, promoting competition of commercial services for all areas of passenger transport, liberalization of the aviation sector, and introducing rail passenger service along the expanding rail network. The Programme Actions shall increase urban and interurban mobility of the people and offer attractive transport services at competitive price levels.

Programme Actions:

- Establish Transport Authority Branch Offices in major Cities;
- Establish Regulatory Framework for Urban Transport;
- Establish Integrated Urban Transportation Master Plans;
- Develop Guidelines to ensure Mobility for those with Special Transport Needs;
- Competitive Inter-Urban Bus Transport Services in the Kingdom;
- Intercity Rail Services for Passengers in the Kingdom;
- Strengthening Regulatory Functions for Aviation to Promote Competitive Air Transport Services; and
- Guidelines and Standards for Tourism Transport Service

4. **Hajj Transportation** addresses the transportation needs of the pilgrims by strengthen the planning and logistics arrangements for the annual Hajj period and promoting best possible planning and implementation of transport infrastructure projects to facilitate urban and intercity movements of the pilgrims. The Programme Actions give the special priority of this Programme area.

Programme Actions:

- Strengthen Planning and Logistics for Hajj Pilgrimage; and
- Infrastructure Development for Hajj and Umrah Pilgrimage

5. **Transport Safety** aims at enhancing traffic and transport safety in the Kingdom by implementing and strengthening institutional frameworks and capacities as well as targeted activities in the areas of enforcement, engineering, education and emergency response. Programme Area Transport Safety is designed to guide the key stakeholders in establishing a suitable institutional framework for transport safety work, in developing and implementing Transport Safety Programmes for the sub-sectors Land Transport, Maritime Transport and Aviation, in better coordinating activities and allocation of responsibilities as well as in enhancing standards for infrastructure and service provision. It also intends to address that human beings have shortcomings. The Programme Actions contribute to the Strategic Goal Safety as well as indirectly to the Strategic Goals Efficiency and Socio-Economic Development.

Programme Actions:

- Strengthen Coordination for Road Safety by establishing a Supreme Board for National Traffic;
- Improving the National Traffic Safety Programme for roads including Allocation of Responsibilities for Road Safety and Strengthening Road Safety Capacities;



- Establishing a National Land Transport Safety Programme for Roads, Railways and Pipelines
- Establishing a National Maritime Transport Safety Programme
- Establishing a National Air Transport Safety Programme

6. Environmental Protection aims at minimizing negative environmental impacts and health risks brought upon by the transport sector, through addressing the formulation of policies, regulations and standards under the control of the Presidency for Meteorology and Environment (PME) and compliance to issued regulations by concerned implementing agencies. Priority areas are the setting of appropriate emissions levels across the transport sector and a meaningful implementation of environmental impact assessments (EIA) for major infrastructure projects. The Programme Actions shall improve and enforce standards as well as strengthening institutional and professional capacities.

Programme Actions:

- Formulation of Environmental Protection Strategy and Emissions Regulations for the Transport Sector; and
- Capacity Building for Effective Implementation of EIA

VI. Implementation of the National Transportation Strategy

The structure of NTS goes beyond the definition of the vision and goals by specifying a substantive and comprehensive Action Programme for many different agencies of the sector, and its implementation mechanism needs to be embedded within existing administrative and legislative frameworks of Saudi Arabia to ensure allocation of resources and a coordinated Programme implementation.

A key policy of NTS demands full ownership of all participating agencies while they implement their parts of the Action Programme. This distribution of responsibility allows for the many tasks to be realized at the same time, but a central monitoring and Programme coordination is considered to be vital to maintain cohesion of the NTS Programme structure and to ensure that results and achievements support momentum and direction towards the vision and the strategic goals. Further, it is important to keep the Policies and Programmes up to date and necessary adjustments made according to ongoing developments should be incorporated which calls for a periodical review of the NTS Programme.

Achievements of the Action Programme can only be made visible if its implementation is monitored and reported. Given the strategic nature of the Programme activities and the time required for implementation by respective agencies, a bi-annual reporting cycle that includes measurement of progress through agreed indicators may be sufficient for the government to give appropriate consideration to the strategic direction of the transportation sector.

A periodical review of the Action Programme Planning will keep necessary actions up to date and allow making adjustments to the Action Programme in line with the Kingdom's development needs. A linking of the NTS review cycles with the National Development Plans may ensure that the Action Programme is being addressed by all concerned agencies in line with the National Development Goals, and will be connected to resource allocation mechanism.



1. Background

Development of Saudi Arabia's National Transportation Strategy (NTS) was launched by the Ministry of Transport in 2002 G (1423 H). The project was officially established through a royal decree and for which three important development phases were identified as follows:

Phase I: "Existing Situation and Strategic Framework"

Phase II: "Issues and Challenges"

Phase III: "Policies and Programmes"

During Phase I MOT together with the NTS Steering Committee reviewed the existing situation and jointly developed with participating transport sector agencies the principle strategic framework for the NTS. While entering Phase II NTS Development it was recognized that there is a need for an enhanced dialogue among all transport sector related government agencies in the Kingdom in order to further align their operational activities and plans with the overall Vision and Strategic Goals. With technical assistance from GTZ, activities of Phase II included dissemination of information about NTS, facilitation of an interagency dialogue and the provision of technical expertise while assisting the agencies in evaluation of their activities and plans.

The findings have been documented in Agency Reports prepared on behalf of each agency to reflect facts and their opinions. The subsequent NTS Analysis of these reports identified important NTS Issues and Challenges through comparing all activities, Programmes and responsibilities of the agencies across the transportation sector. Volume I of the NTS Phase II Report "Issues and Challenges" presented the results of the NTS Analysis which was based on the information of 37 agencies as documented in the Agency Reports contained in Volume II, III and IV of the NTS Phase II Report. These findings were evaluated during the first NTS Workshop held in Riyadh on 27 October 2007 G (15 Shawwal 1428 H).

The basis of NTS is constituted in the Vision and by the six Strategic Goals which comprehensively set the direction for developing the transport sector in important areas.

The main task for developing NTS was to reach from the general validity of the Vision and Strategic Goals towards identifying practical NTS steps that can be taken. Thirty seven (37) Ministries and agencies related to the transport sector were involved in a dialogue on NTS to identify relevant issues and understand how they may contribute towards these goals. Second, a workable Programme needs clear ownership and allocated responsibilities, therefore it was equally important to identify responsible and associated agencies and stakeholders for those issues.

The NTS Analysis drew on the information of the Agency Reports by extracting the NTS related issues and compiling those into a long list. During this process it became obvious that most of the issues relate to more than one agency, which suggested that possible NTS actions and Programmes for resolving those issues would require a coordinated approach. The Analysis also identified the multiple relationships of the issues with regard to the Strategic Goals. Within this multiple agency and multiple goal environment a third operational dimension was necessary to be established which tied the issues together under operational aspects, and thereby defining specific "Programme Areas".

An important result of the NTS Analysis is the grouping of issues and actions into six Programme Areas which subsequently frame the Action Programme:

- Transport Infrastructure Development
- Freight Transportation, Trade Facilitation
- Passenger Transport
- Hajj Transportation



- Transport Safety
- Environmental Protection

The Final Report on NTS Development presents in Chapter 2 the Vision and Strategic Goals as they have been set and reflected against the findings during the NTS development process. Chapter 3 summarizes the Issues and Challenges emanating from the NTS Analysis. Chapter 4 outlines important guiding policies that are important for the implementation of NTS and Chapter 5 presents the detailed Action Programme with its six Programme Areas and 28 strategic actions. Finally Chapter 6 describes how NTS with its principle elements shall be implemented and monitored.



2. Vision and Strategic Goals

As the Kingdom's transportation system continues its transition from a period of massive infrastructure development and expansion to one of a maturing system with more focus on operational, maintenance, and regulatory issues. The vision is to create a safe, efficient, and effective multi-modal transportation system that serves the needs and interests of everyone, locally and at national and regional levels, and strengthens the competitive position for the Kingdom in global markets. Therefore the overall Vision for NTS has been agreed as follows:

VISION

To develop and maintain a multimodal transportation system, serving the needs of society by ensuring a safe, efficient and technologically advanced transport system that promotes social and economic development and international competitiveness of the Kingdom, and ensures a healthy and secure environment for its citizens.

The challenges of the transportation sector reflect largely those that the Kingdom faces as a whole. These issues necessitate a reconsideration of policies and planning in light of current realities and ongoing developments. The Kingdom has embarked on a path of accelerated economic development on which major challenges and opportunities need to be tackled, and approaches of the past three decades, albeit highly successful, may no longer be effective or efficient enough. Examples of such challenges that necessitate a re-focusing of transportation policy include the following:

- Fundamental changes in the global economy and the Kingdom's role in it have taken place over the last decade. With Saudi Arabia's accession to the World Trade Organization (WTO) the trade facilitating role of transportation is vital for integration into regional and global markets. The changing role of oil and the evolving nature and diversification of the Saudi economy are fundamental and permanent. Coupled with the globalization of economic activities, the Kingdom has to maintain its economic competitive advantages in order to effectively participate in the new world economic order. The transportation sector is therefore challenged to raise its level of efficiency and connectivity in order to support and enable the national economy as it evolves and responds to these changes.
- The demographic trends of the last decade have resulted in rapid population growth. A large and growing segment of well-educated young Saudis population will place increasing demands on the transportation sector as they seek to take advantage of employment, education, recreation and social opportunities.
- While the transportation sector is playing a vital role in supporting the rapid economic growth and social development of the Kingdom, related transportation safety problems and environmental concerns have reached serious levels and must be addressed. The high number of accidents, injuries and deaths that occur on the Kingdom's roadways are clearly unacceptable, by any standard. The pollution associated with the transportation sector, as well as the consumption of environmentally significant resources, are consequences that cannot be ignored. The quest to enhance the efficiency and productivity of the transportation sector should not be done without regard to the imperative of improving traffic safety and reducing the environmental impacts of transportation.
- National Defense, security and social stability along with emergency assistance are some of the most fundamental and important functions of Government. The transportation sector plays a vital support role by ensuring that the transportation facilities and services are readily available to provide needed access and mobility in the event of major conflicts or natural and man made disasters.



- Hajj is a unique and special event that presents incredibly complex challenges associated with bringing together millions of pilgrims in ever growing numbers, concentrated within a relatively small geographic area, for a short period of time each year. The Kingdom has a special honor and responsibility for managing, organizing and administering Hajj. The demands placed upon the transportation sector, including arrivals and departures as well as on-site mobility, are unparalleled elsewhere in the world. The provision of transportation services and facilities that are efficient and safe, and are in keeping with the dignity and special significance of Hajj, will continue to challenge all segments of the transport sector and will require innovative ideas and the application of new technologies.

Against this background six Strategic Goals and related sub goals have been formulated and adopted for the transportation sector. This set of Strategic Goals presents a comprehensive and balanced approach that considers the Multi Modal aspects of transportation, the priority areas of need and concern within the sector, and the overall scope and intent of the Kingdom's development vision and plans.

The NTS Strategic Goals outline principle targets for the transportation sector in the fields of:

- Efficiency
- Socio-Economic Development
- Safety
- Environment
- National Protection and Security
- Hajj Transport

The goals are further specified by additional sub-goals and related principle actions which are considered to be important for keeping direction towards these Strategic Goals, thus describing the specific focus of each Strategic Goal in a comprehensive manner. However, the formulation of the strategic goals remains rather abstract and does not quantify or qualify particular actions or allocate those to responsible actors. Hence the goals themselves do not provide practical guidance towards tangible achievements. The conclusion is that the gap between the Strategic Goals at the top and the actual issues of the many stakeholders on the ground needs to be bridged with guiding policies and a tangible Programme of Actions.

During the course of the NTS Development Phases II and III these goals have been reviewed in the light of actual activities and ongoing developments of thirty-seven (37) transport related Ministries agencies , and this agency review revealed many approaches and practices that demonstrated how agencies are acting and dealing with issues while pursuing one or more of these goals. This understanding and the conclusions of the NTS Analysis provided further clarity on the function and priorities of these Goals and their relationship to actual issues.

The six formulated Strategic Goals are shown hereinafter and explained how their functions and priorities relate to identified issues and the Action Programme.

Strategic Goal “Efficiency”

Strategic Goal “Efficiency”

Ensure the sector’s technical, economic and financial sustainability by improving overall performance of public and private transport service providers, by reducing governmental involvement in tasks which can be more efficiently executed by the private sector, and by rationalizing existing pricing and cost recovery schemes.

- Sub-Goal “Improve overall performance of the transport service providers, both public and private”
 - Establish minimum performance standards and monitor performance of service providers
 - Relate major investment decisions to economic feasibility
 - Develop human resources in all fields of transportation
 - Improve organizational, administrative, and managerial function
 - Provide necessary legal and regulatory framework for efficient operation by service providers
 - Promote scientific activity, information exchange and advanced technology application
 - Improve traffic operations in urban areas
 - Improve intermodal linkages in transportation planning
- Sub-Goal “Encourage and facilitate private sector involvement in transport services and facilities”
 - Privatize existing government transport services when feasible
 - Major investment projects shall be decided on the basis of thorough feasibility studies in all aspects
 - Develop and apply schemes for private funding of transport facilities and new infrastructure
 - Encourage private sector involvement in the development and application of advanced technologies within the transport sector
- Sub-Goal “Rationalize pricing and cost recovery”
 - Monitor operating cost and revenues of service providers
 - Provide direct and indirect government support whenever needed
 - Establish pricing policies according to future needs
- Sub-Goal “Assign the tasks of regulating, planning and follow-up of road transport and maritime transport to one agency, and coordinate with the General Authority for Civil Aviation regarding air transport.”

The goal “Efficiency” aims at the development of a well functioning private and public sector for transportation, which is financially sound and technically advanced. Many transport services in the Kingdom have been established by the public sector as this was the only available option at that time. Now the transport market has grown and the emerging economical conditions allow for a much greater level of private sector participation. Many different examples in Saudi Arabia demonstrate that increased competition for such services leads to better service levels for the customers at competitive prices. Although the sub goals and principle actions give specific attention to pricing and cost recovery needs, present experience clearly shows that the main focus for private sector services needs to be on sound regulation of market access and healthy competition in order to achieve efficient services at competitive price levels.

Review of the public services which are not viable to be transferred to private sector operators (either by nature or due to market conditions) identified that the many issues that were identified indicated that there is wide room for improving the administrative processes and the implementation of regulations. In particular, higher levels of cooperation among the sector agencies and more integrated approaches in the planning processes as well as for formulation, administering and enforcement of rules are expected to yield better efficiencies. Introduction of Information Technology (IT) applications and e-government solutions for public services are certainly practical means to introduce sustainable progress in the direction of this strategic goal.



Strategic Goal “Socio-Economic Development”

Strategic Goal “Socio-Economic Development”

Support the Kingdoms economic growth and competitiveness, domestically and internationally, and provide good access to all services and mobility for all people.

- Sub-Goal “Promote growth and diversification of the economic base”
 - Complete infrastructure projects needed for economic development in a timely and efficient manner to serve all sectors
 - Provide transport infrastructure for exploitation of mineral resources
 - Enhance access to areas with high recreational potential
- Sub- Goal “Support balanced growth throughout all regions of the Kingdom”
 - Improve transportation services for existing development centers
 - Plan and develop transport needs for new development centers
 - Address transport needs and development of lesser developed areas
 - Improve the service facilities on highways
- Sub- Goal “Meet mobility requirements of society”
 - Supply remote areas with transport services and infrastructure
 - Supply appropriate public transportation services to areas in cities with low vehicle ownership
 - Meet transportation needs of disabled and handicapped
 - Provide good access to education institution and employment opportunities
 - Provide alternative transportation modes and options within urban areas and in major travel corridors
- Sub-Goal “Enhance international and regional integration”
 - Actively support bi-lateral and multi-national treaties among the Gulf Cooperation Council countries; and internationally in the field of transport
 - Harmonize operational standards
 - Rationalize procedures for border crossing traffic
 - Reduce trade barriers, support economic deregulation, and promote competition in domestic and international markets in transportation related services

The Kingdom’s highway system has evolved from less than 230 kilometers (km) of roads in 1953 G (1372 H) to over 52,000 km of paved highways. After principle connections between major urban centers of the country were established mainly through highways and expressways, the emphasis has shifted towards the development of feeder roads which provide much needed access to the smaller towns and villages. In addition the growing level of motorization and the prominent role of road transportation for national and international goods transportation demands higher capacities of the road system. Air transportation is facilitated by four international and twenty-three domestic regional airports, thus totaling twenty seven airports, and Saudi Arabia’s main sea ports constitute the largest port network in the Middle East with increasing importance for the region. The present railway network of the Kingdom is being expanded and with its future geographic coverage, railway’s role is increasingly significant in providing freight and passenger transport services to the growing economic zones of Saudi Arabia and connecting in future to neighboring countries and the entire GCC region. This building of a comprehensive intermodal transport network enables the development of Multi Modal transportation in the Kingdom and creates development opportunities for all regions. The accession to WTO will further enhance international trade and demands further regional integration of the Kingdom. The Socio-Economic Development Goal underlines the significant role of the transport sector in this regard and sets important objectives for accomplishing this ongoing transport sector expansion process.

In addition to the economic focus this strategic goal also addresses mobility needs of the society, particularly in respect of the development of urban and public transport systems which has not yet received the appropriate levels of attention.

Strategic Goal “Safety”

Strategic Goal “Transport Safety”

Develop and implement a coordinated and comprehensive set of safety improvement measures addressing all aspects of the transportation system to reduce the number of transportation related deaths, to reduce the number and severity of transportation related injuries, and to reduce the economic and productivity losses caused by accidents.

- Sub-Goal “Improve vehicle/driver/infrastructure components of road safety”
 - Maintain up-to-date vehicle equipment standards
 - Improve vehicle inspection Programme
 - Strengthen driver education
 - Develop Programme for repeat violators
 - Enhance driver/occupant awareness
 - Update design standards to incorporate current safety features
 - Implement maintenance practices to improve safety
- Sub-Goal “Increase enforcement of existing laws and regulations”
 - Supporting strict enforcement of existing traffic laws and regulations
 - Implement periodic roadside safety inspections
 - Enhance the general awareness regarding traffic rules and safety of anyone working on and with roads
- Sub-Goal “Improve system safety and regulations”
 - Develop accident response/incident management system
 - Expand road information, services and emergency assistance
 - Improve measures to reduce animal/vehicle conflicts
 - Review and revise existing regulations to reflect new information and standards
 - Develop new regulations as needed (hazardous materials, school transport, traffic court, etc.)
- Sub-Goal “Improve safety related information and data”
 - Develop usable and consistent accident reporting procedures
 - Establish working relationships and information sharing among agencies concerned with accident investigation, reporting, assistance and medical care
 - Implement a comprehensive and coordinated accident information and data system that can be shared by all concerned agencies
- Sub-Goal “Improve marine safety at sea and in ports”
 - Review and update existing standards and regulations
 - Complete and maintain up-to-date navigational system
 - Improve training and skill development within marine sector
- Sub-Goal “Support measures to maintain and improve safety for railroads”
 - Review and adopt safety regulation
 - Improve and support systems and regulations of operations and increase safety measures
- Sub-Goal “Support measures to maintain and improve safety for aviation”
 - Improve and update regulations for air traffic and airline operations in the Kingdom
- Sub-Goal “Support measures to maintain and improve safety for pipeline transport”
 - Support Pipeline transport as a mayor transport mode to minimize environmental impact and increase safety
 - Review and update specifications and regulations for planning and operation for pipelines

The Strategic Goals Safety concerns transport safety of all transport modes; however the order of magnitude of the deteriorating road safety situation in the Kingdom with increasing numbers of road accident fatalities places a much higher priority on road safety issues. Concerned Ministries and other Authorities are aware of these developments and many activities are being initiated to mitigate this



problem, however, the NTS Analysis revealed that a particular focus of the goal “Safety” needs to address coordinated approaches among the many responsible offices to achieve the desired results.

The responsibility for traffic safety is jointly shared by the Ministry of Interior, which is overseeing and regulating the vehicle fleet and traffic regulations, the Ministry of Transport and the Ministry of Municipalities and Rural Affairs, which are building and maintaining the road infrastructure with all its traffic engineering elements such as road signs and signals. Since both the vehicular traffic and road infrastructure are inextricably intertwined when considering road safety, this strategic goal implies objectives regarding high levels of coordination and application of clear leadership for providing direction and managing road traffic and safety.

Improvement and adaptation of Transport Safety regulations for all modes has already been a main concern of all responsible Ministries and agencies of. Numerous actions have been taken to improve transport safety and to comply with international safety standards such as for dangerous goods transport on roads, by pipelines or maritime safety. With commercialization and privatizations of transport markets such as aviation, railways, and ports, safety responsibilities which were previously embedded in the organizational structure of public entities are now to be transferred into regulatory systems. Moreover the increasing complexity of safety regulations compliance with safety standards calls for good oversight and coordination

Strategic Goal “Environment”

Strategic Goal “Environment”

Minimize the sectors negative impact on the environment through mitigation and avoidance and create environmental awareness in society.

- Sub-Goal “Control pollution from transport operations”
 - Reduce air pollution
 - Reduce noise pollution
 - Reduce sea and ground water pollution
 - Reduce littering
- Sub-Goal “Reduce/avoid consumption of environmentally valuable resources”
 - Identify environmentally valuable resources
 - Develop standards and classification schemes
 - Prepare project level environmental assessments
 - Consider environmental and ecological issues in the design and construction of transport infrastructure
- Sub-Goal “Reduce consumption of environmentally harmful substances and materials”
 - Restrict the use of harmful materials
 - Promote and apply environmentally friendly products and technologies in all fields of transportation
 - Control disposal of environmentally harmful substances
- Sub-Goal “Create/enhance environmental awareness in society”
 - Develop environmental training and expertise within governmental agencies
 - Include environmental issues more significantly in school curricula use all forms of media information to generate greater awareness of environmental issues

Environmental policy has gained special momentum in the Kingdom by formulating the Sustainable Development Strategy and by allocating the policy leadership to the Presidency for Meteorology and Environment (PME). This new focus and institutional strengthening of environmental policies address the health and pollution concerns as indicated in the sub goals and issues more effectively.



Emissions which are originated by the transportation sector are directly associated to health risks and harmful pollution and they contribute to global emissions. A direct response of NTS in this regard is to pursue limitations for emissions levels and pollutions, which places an important task to PME to identify practical solutions for emissions regulations for vehicles. While emissions regulations and policies shall be embedded in the PME Sustainable Development Strategy, PME needs to address requirements to vehicle technology and emissions regulations as well as global commitments.

The NTS Analysis further identified issues that concern the application of environmental impact assessments (EIA) for infrastructure projects. While following the policy principle of shared responsibilities, achievements towards the goal Environment relies on PME in its prominent role to provide clear leadership through formulating environmental policies and standards, as well as delivering guidance to implementing and to the agencies.

Strategic Goal “National Protection and Security”

Strategic Goal “National Protection and Security”

Provide a transportation system that capably meets the mobility needs of national protection and security, and natural and man made disasters.

- Sub-Goal “Implement measure that meet mobility needs for national protection and security”
 - Establish and utilize infrastructure design standards that include security and defense requirements
 - Reduce the vulnerability and consequences of intentional harm to the transport system and users
 - Ensure readiness and capability of transportation to meet national security needs
 - Develop contingency plans for evacuation
- Sub-Goal “Meet access and mobility needs for natural and man made disasters”
 - Maintain readiness of transport resources to assist in emergency rescue and restoration of services in the event of a natural or man made disasters.
 - Provide preventive measures that offset or reduce the adverse consequences of natural and man made disasters
 - Work with disaster relief agencies to develop emergency rescue and evacuation plans

The Strategic Goal “National Security” is an important reminder of the need for the transport sector to fulfill also strategic functions for security and disaster response. The consideration of security aspects within NTS is closely associated to transport infrastructure planning processes and standards.

Strategic Goal “Hajj Transport”

Strategic Goal “Hajj Transport”

Provide a coordinated, multi-modal transport system that meets the unique and special travel needs of Hajj, in a safe and efficient manner.

- Sub-Goal “Enhance efficiency of Hajj transport system”
 - Increase the capacity of all transport modes that serve hajj requirements
 - Evaluate all options including public transport systems and new technologies to provide better transportation for pilgrims
 - Improve the transport infrastructure that serves hajj requirements



- Establish and integrated plan for Makkah and the holy sites to provide the information and instruction needs for better orientation of the pilgrims
- Improve traffic monitoring centers for Makkah and Madina
- Sub-Goal "Improve safety for Hajj transport"
 - Develop proper safety standards for all vehicles serving Hajj transport needs
 - Develop policies and actions to improve control of vehicle transport
 - Implement dedicated access routes for emergency services
 - Develop improved rescuer systems for Hajj period

Although the Strategic Goal "Hajj Transport" has all the attributes of a Programme of Activities, its elevation to the strategic goal level clearly demonstrates the prominent role and the national obligation to facilitate transportation of Hajj and Umrah pilgrims within NTS.

The goal highlights the importance of coordination and the multi modal transport aspects of the travel needs of pilgrims from all over the world. The Kingdom is successfully responding to these challenges by giving responsibilities and authorities to the Ministry of Hajj for logistical coordination of the Hajj pilgrimage every year and for planning and developing infrastructure and transport services to cater for the continuously growing numbers of visitors in coordination with related agencies.



3. Issues and Challenges

The identification of Issues and Challenges is based on the information of the Agency Reports¹ from which emanating Issues have been compiled into a long list². During this process it became obvious that most of the issues are related to more than one agency, which suggested that NTS Actions and Programmes for resolving those issues require coordinated approaches among the stakeholders. The NTS Analysis also revealed the multiple relationships of Issues with regard to the Strategic Goals. Within this multiple agency and multiple goal environment a third operational dimension is necessary to combine the Issues under operational aspects, and to provide the structure for the Programme Areas.

At this stage the NTS Analysis suggested to cluster the issues according to their principle function in transportation of the three main transportation areas as follows:

- Transport
- Infrastructure Development
- Freight Transportation and Trade Facilitation
- Passenger Transportation

The first generally relates to the establishment and provision of transport infrastructure, where by the latter two are concerned with transport operation and distinguishing between transport of goods and transport of people. The above grouping would also allow the including of prominent crosscutting issues such as of Transport Safety, Environmental Protection, and Hajj Transportation; however the importance of these areas suggested establishing three separate Programme Areas in order to address the national importance:

- Hajj Transportation
- Transport Safety
- Environmental Protection

3-1. Transport Infrastructure Development

Establishing transport infrastructure encompasses all planning, building and financing activities, where infrastructure planning and infrastructure financing presents the two main issue groups of this Programme Area. The NTS Analysis points in the field of infrastructure planning towards the need for integrated planning processes to consider intermodal connectivity and Multi Modal Transport aspects. For infrastructure financing the Analysis indicates challenges regarding regulating commercialization, private sector participation, and competition to allow public funding to gradually retreat from infrastructure funding where possible and to encourage private sector investments.

Demand for Multi Modal Transport Infrastructure

Over time the Kingdom's transport sector development has passed through the different development phases of the development of transportation networks, starting with establishing ports along the coast

¹ Volumes 2, 3, and 4 of the Report on Phase II NTS Development

² Volume 1 of the Report on Phase II NTS Development



line serving the urban development, towards entering now into the most advanced stage where high priority links emerge. In this regard the sea ports at Jeddah and Dammam have developed as important container terminals for the country, whereby Jeddah hosts major hub container terminals in the Middle East Region, as it is strategically located at major world shipping routes passing the Red Sea.

The development of the railway network in the Kingdom and its planned expansion across the whole region will complement existing transport corridors within the Kingdom and for the entire region. Thus land transportation will be gaining importance for distribution of international trade goods through faster Multi Modal Transportation. Compared to present feeder services and road transportation this will improve access to maritime transport and international markets for the hinterland of the Kingdom.

The railway network of Saudi Arabia will link major cities and important economic zones with the Kingdom's hub container ports. As a result Multi Modal Transport corridors evolve, which have the potential to offer different levels of logistics services for cities and the economic zones of the Kingdom's regions along these corridors.

Integrated Transport Infrastructure Planning

Transport infrastructure development of the Kingdom has been mainly mode oriented where Ministries and authorities establish their plans for its responsible parts of the transport infrastructure and carry out projects and maintenance according to budgetary allocations. Existing roads, ports, airports, and railway demonstrate high levels of achievement in this regard. However, it is acknowledged that intermodal integration is lacking and a number of examples suggest that the transport infrastructure could be more efficiently developed by giving further consideration to intermodal interactions during early planning stages. While existing planning procedures are essential and well functioning, the coordination of these plans through a National Transport Infrastructure Plan will strengthen the planning process and that presents a major issue for the National Transportation Strategy. Such a plan shall encompass all future transport infrastructure projects of all modes for a longer planning period such as 15 years. While considering the priorities for these projects the plan needs also to schedule the project implementation according to long term budget expectations, thus linking infrastructure development planning and financing at a very early stage. Such a plan can be dynamically adjusted according to needs and developments and be revised periodically for example every ten years. Present five year development planning is understood not to be long enough for a strategic planning of transport infrastructure. Such planning is exercised by other countries such as Germany through its Federal Transport Infrastructure Plan.

Transport planning is the result of a balancing process of various interests in which economic reasoning shall play an important role. In this regard a number of agencies suggested the introduction of feasibility considerations possibly through a standardized methodology. This would provide principle information to economic viability of a project and would allow prioritizing of projects according to their economic ranking. Further, feasibility considerations need to include the user requirements which may not sufficiently been considered by present planning mechanism.

Infrastructure Financing, Private Sector Participation

Financial resources and availability of funds for infrastructure investment needs, as well as the regulatory framework for private sector participation are important areas for infrastructure financing. A study of the Riyadh Economic Forum on privatization identifies a substantial gap between investment needs and available financial resources in almost all sectors of the Kingdom, which varies between one third and two thirds. However oil price changes eased the financial position significantly. To close this gap and reaching less independence from traditional public funding a number of approaches are



being undertaken to attract private sector participation for transport projects and operation like for rail, aviation and urban transport activities. The relevance of the financial gap and the funding volatility is closely associated with the government's privatization policies in the various sectors.

Provision and financing of the road network is considered to be a genuine task of the public sector where MOT is responsible for inter urban roads and highways, and MOMRA is responsible for urban roads and streets. Over the past decades the road network has been expanded substantially, however, present budget allocations may not always sufficiently address the relevance and necessary levels of maintenance work to maintain the quality of existing roads. Good road management is a function of investments and maintenance resources shall be efficiently applied according to the road development needs.

The aviation sector has been established and operated within the public sector leading to a system with little influence of market forces to develop competitive services and price levels. The geographical extent of the Kingdom and the understanding to provide air transport service to the people for their mobility, particularly to distant areas with less population density, provides justification for maintaining public air service routes supported by public funding as it has evolved until now. However, present market volume on certain routes can support competition and liberalization of air transport. This will result in better services at competitive price levels, and may allow the public sector to gradually retreat from public funding of the aviation sector. Therefore the aviation sector is presently undergoing a process to apply market forces through deregulation and private sector participation. This includes the transformation and commercialization of the General Authority for Civil Aviation and its services, such as the introduction of private domestic airline service and pursuing the privatization of SAUDIA. With this move the authorities are challenged with a whole new range of regulatory tasks to develop and safeguard healthy competition for all aviation related services.

Public funding of aviation particularly to remote and less populated areas is to be considered as a regional subsidy for that particular area. Now, with commercial air services such subsidies will not be available, which in part is expected to be compensated by higher efficiency of the new private airlines compared to previous services of SAUDIA. To monitor and regulate the service on these PSO routes is a major challenge of the regulating authority. According to economic reasoning aviation policy shall be separate from regional development policy.

The port sector has already reached certain levels of private sector involvement through operations concessions for terminals, which led to higher performance and service levels. However, commercialization of the ports terminals remains a major challenge for the sector. Essential production assets are still owned by the government which also sets the port tariffs and controls revenues and expenditures through the national budget, a process which insufficiently considers economic reasoning. As a result the ports are hampered in their commercial development and limited to compete successfully in the growing market segment of port handling in the Middle East, thus losing market shares to neighboring countries. Similar to the aviation sector the port terminals can act more freely and successfully if they are operated within an own corporate framework, which combines investment risk and success. The role of Government is the one of a landlord possible through the Ports Authority by leasing out the land and principle essential infrastructure. Such business units could remain in public ownership but operate and develop their production more independently as it has become practice in many countries. Such a commercial transition also provides opportunities for private sector participation.

Railway infrastructure has in addition to offering commercial transport services also a strategic function for the Kingdom. Rail transport with its unique features provides efficient access to international trade and offers competitive passenger transport. The expanding network in the Kingdom and future connections to neighboring countries will increase the opportunities for economic viable rail services for freight and passengers alike. Similar to the aviation sector, access to the transport infrastructure for commercial rail transport operators is vital to encourage the development of competitive services in many areas. Acknowledging that railway is a complex infrastructure with high demands for transport safety, track management, and operation, the authorities face a major challenge to regulate and oversee these functions, while safeguarding healthy competition of transport services.



3-2. Freight Transportation, Trade Facilitation

Multi Modal Transport Logistics

Globalization of trade and the development of larger trade areas have led to shipping and Multi Modal alliances to handle the global nature of supply chains. International shipping companies have merged, expanding their geographic reach to create global service networks. Similarly, terminal operators have kept pace, globalizing operations to offer their shipping customers consistent services over diverse trade routes. Their expansion activities are a clear indication of a new trend towards increasing internationalization of transport operations, a trend which also can be witnessed in the Kingdom. Hence the thrust towards enhanced global network management practices by shipping and terminal operators alike is putting increased demands on intermodal interfaces. Subsequently an as large as possible array of transport routes need to be made available to benefit from the resulting increased flexibility in management of international transport operations.

Modern and efficient ports are necessary and powerful tools for facilitating and fostering trade and development. Nowadays, ports must offer efficient and reliable services to ships and cargo, including communication systems, documentation, and customs procedures to allow the timely flow of goods through the transport chain. To assist in this flow, more and more countries are developing distribution or logistics centers that are connected to ports and being used for the storage, preparation and transformation of cargo. Therefore, ports are no longer simply a place for cargo exchange but are a functional element in the dynamic logistics chains through which commodities and goods flow, hence became part of the production chain itself.

The intermodal integration of distribution activities and responsibilities is consequently utilized to facilitate business transactions that move goods from origin to destination. The major objectives of Multi Modal Transport are to increase the speed of goods distribution and improving investment performance. Multi Modal Transport operations of container shipments make use of long-distance inland rail transport services under a simplified transport document scheme, which greatly extends the hinterland of ports.

Increasing utilization of rail transport for container logistics by using block/shuttle train services in the US and throughout Europe demonstrate good technological practices for Multi Modal Transport operations. Further the institutional and legal framework which is evolving in Europe to facilitate uninterrupted movements of goods between countries with different legal regimes can provide guidance for the establishment of efficient Multi Modal Transport logistics in the Kingdom.

Given the modal orientation of the sector Ministries and administrations, a particular challenge is the development of Multi Modal Transportation. Rail container services to Riyadh Dry Port are a good example for integration of logistics services, whereby intermodal logistics can offer more new transport opportunities and efficient freight services to many other areas along the expanding the railway network. This calls for an in-depth integration of infrastructure, operation, and regulating rules of ports, roads, railway, airports, border crossing terminals, and transit transportation preferably under a coordinated leadership.

Integration of Regional Land Transport Links

Road transport in the Kingdom has evolved as the prominent freight transport mode, and compared to other transport services such as rail and ports, the trucking industry is private sector operated by numerous haulier companies across the country. Over the past the ports represented the Kingdom's main window for international trade, and the trucking industry operated primarily domestically. Hence, the Kingdom's framework for regulating road transport has a domestic focus with little adaptation to internationally agreed standards. Regulations for port and maritime services have much more advanced in aligning to international trade, safety and security standards.



Although the regulatory framework for transportation catered for the Kingdom's transport development needs over past decades it did not always follow internationally practiced approaches and norms. The transport sector however faces new challenges resulting from the drive towards regional integration at different levels such as GCC or Middle East countries, and towards participation in global trade following the WTO membership. High economic growth rates and many efforts to attract investments and to develop the Kingdom's industries and services are placing high demands on the administration. This particularly includes alignment to internationally adopted transportation standards, norms and rules. Regional integration of land transport links, development of new railway lines, increasing competition of transport services on transport networks, and intermodal integration of transport infrastructure offer opportunities for new levels of logistics services with great potentials for reducing the economic distance between the regions of the Kingdom and international markets.

Regulations for Competition of Transport Services

Impact of the growing economy is evident by the high growth of the Kingdom's transport sector. Existing infrastructure is burdened with increasing freight volumes, and the network of roads and railways is being expanded including new links to neighboring countries. Regulatory systems for road transport as well as for railway operations as established over the past have its limitations and may not provide the instruments needed for more efficient and competitive transportation. Efforts in reviewing and improving rules and regulations need to continue and can be enhanced through including requirements for professional competences, as well as for safety and environmental standards for road transport licenses to improve service levels of the sector.

Expanding rail transport services and the transition from the operator SRO towards commercialization of railway operation presents a new challenge to the authorities which offer opportunities for competitive transport services on a larger network. Therefore on one side safety standards and interoperability of the future rail links need to be ensured and on the other side appropriate levels of competition and track access shall be encouraged and need to be regulated.

Facilitation of International Trade

Smooth border crossing by road, and in future even by rail, are essential for growing trade activities with countries in the region. Present land border crossing capacities and procedures for border crossing clearance require adjustments. Existing capacities need to be expanded and clearing procedures modernized to facilitate trade and reduce existing institutional barriers that impede a competitive participation in world trade.

While international land transport is increasing, it offers new opportunities for national trucking companies. To promote this development national legislation needs to be established or adjusted to enable the Kingdom to responsibly regulate and enforce safety, security, and fair competition, and moreover to enable its national transport operators to participate in international activities. A number of different international conventions and agreements have evolved while countries in Europe made efforts to establish an internationally accepted framework that allows smooth and unimpeded road and rail transport. Growing trade relations to European countries and the awareness for the need of common standards for international transport encouraged a number of Middle East countries to gradually adapt to this framework. It involves bilateral agreements on road transport, and accession to multilateral agreements such as on traffic and vehicle safety, dangerous goods handling, contracting, customs procedures, and transit transport.

The Kingdom is presently reviewing a number of those agreements, but the accession progress is still slow. Transport operators are the primary beneficiaries of these international agreements and their involvement in the accession and implementation process may be helpful. Therefore the establishment



of a national association of trucking companies as well as for the freight forwarding industry according to national regulations combines the national knowledge and competence of the industry and can act as competent partners to the administration while formulating new regulations and adopting international standards. National associations of freight forwarders and of road hauliers are benefiting from the patronage of their international organizations which provide assistance and programs for professional education to their national member organizations to improve service levels and professional competences. Moreover, for implementing the customs convention for transit transport under carnet TIR, or for issuing "Through Bill of Ladings" these national associations play an important role in facilitating these schemes.

3-3. Passenger Transport

The NTS Analysis of concerned agencies which are related to passenger transportation suggested four issue sub groups within this NTS Programme Area:

- **Urban Transport Systems**
- **Inter-Urban Transport**
- **Aviation**
- **Tourism**

Integrated Urban Transport Systems

Growing population of the major cities in the Kingdom lead to ever increasing congestion of the cities road networks since the use of private cars still remains the only option for commuting. This adverse development calls for urban transportation plans which should include ITS and multi modal public transport systems of all types of available and planned public transport modes such as light rail and bus rapid transport and bus feeder systems.

Urban bus transportation has not been well developed and initial concessions for bus services did not yield the desired service levels. SAPTCO minimized city services due to lack of urban bus service infrastructure. Further the stopping of financial support from the government resulted in losses. The separation between the concession authority MOT and the beneficiary authorities of the Municipalities has demonstrated the difficulties and inability to integrate and facilitate urban bus services for urban needs and to interface with urban centers and other transport modes. To improve urban bus services, their routings and schedules need to be coordinated within each municipality and decentralized concessions at the municipality level can be more effective.

Studies for Riyadh show that building and operation of attractive public transport systems on a direct commercial basis may not be viable since expected revenues may not be sufficient to recover all investment and operating costs. Hence, a sufficient urban public transport network and system for cities may only be achieved by subsidizing a proportion of involved costs, which shall be administered through a mechanism whilst retaining competitive transport services.

However, urban public transport can only be successful if the cross impacts from and to other urban transportation functions like road traffic and parking management as well as land use policy are internalized. In a short-term perspective, this calls for close coordination with all local stakeholders. The long-term strategy shall also evaluate possibilities to delegate responsibilities to the local authorities.



Inter-Urban Transport

Intercity transport of the Kingdom is presently operated by air services, by bus, by private cars and between Riyadh and Dammam also by railway. With the expansion of the railway network many new opportunities will arise for additional intercity rail services. Examples in Europe show that rail service can successfully compete with air transport and other modes, particular with high speed train service on intermediate routes. Although rail passenger transport is presently operated by SRO there may be opportunities in future to develop such services through concessions and private sector participation. Inter-City Bus transportation is already successfully operated by the concessionaire SAPTCO, however, considering the potential of this market, an opening to increased competition by additional private sector operators can yield better service levels at competitive prices.

Aviation

In Saudi Arabia, the process of market liberalization of the aviation sector started just recently. Saudi Arabian Airlines (SAUDIA) began its privatization process by splitting its operation into seven Strategic Business Units, which are all subject to privatization. Further in 2007G / 1428H, two new airlines commenced national air service in Saudi Arabia. Both newcomers have to comply with a number of prerequisites including air service on so-called PSO routes in the Kingdom. While privatization of air services is carefully introduced at domestic levels, next steps toward international routes are already underway.

Regulatory tasks for aviation are allocated to the General Authority for Civil Aviation, which on the one side is the regulatory agency for the aviation sector, and on the other side it operates the 27 civil airports in the Kingdom. However, these two tasks bear a conflict of interests and therefore GACA is undergoing a restructuring process towards commercialization of business unites which include airport operation and air navigation service.

With the arrival of new domestic airlines and the market orientation of SAUDIA on its way towards privatization new challenges to improve air travel facilities are immanent. Now, domestic terminals have to cater for competing airlines, and with regard to international travel airports and airlines may have to enter into new market segments such as transit passenger services in order to become internationally competitive. In this context SAUDIA's concept of being only an origin - destination carrier may need to expand towards hub and spoke services like it is successfully demonstrated by other airlines of the region.

Until now domestic air service has been supported by exempting airlines from airport and navigation fees, and the air fares are partly regulated by cap fares. Understanding that this can not continue in a commercial and competitive environment, GACA is considering measures to gradually liberate the tariff policy and to introduce applicable airport and navigation fees, while cautiously safeguarding the development of a healthy competition.

Tourism

The Supreme Commission for Tourism and Archeology, established in April 2000 G (1/1421 H), is responsible for the development and promotion of the tourism sector, which shall give particular focus on the unique features of the country, the home of Islam, and its people. By promoting tourism a new economical sector is evolving with potential for private sector investments. The tourism sector currently contributes six percent to the GDP, which includes religious tourism related to Hajj and Umrah.

A Sustainable Tourism Development Plan is guiding the sector development and many national and regional activities are being undertaken to strengthen this development. While keeping in mind the



cultural and religious norms and values of Islam and Saudi citizens, the Commission promotes international and domestic tourism, and regulates the sector by setting standards for facilities, licensing travel agencies and monitors the use and expansion of tourism related businesses. It further cooperates with concerned government agencies and the private sector to develop the necessary infrastructures to meet the tourism demands. In addition it oversees the management training for tourism businesses and works with stakeholders to create jobs for trained personnel.

While tourist activities are being developed, it is understood that transport infrastructure is playing a vital role. On one side infrastructure projects should sufficiently consider the needs of the tourism industry and should not disturb natural or cultural attractions, and on the other side it is essential that tourist destinations are sufficiently accessible by transport means.

3-4. Hajj Transportation

Facilitation of the needs of pilgrims to visit the holy sites and to perform Hajj and Umrah are considered to be a holy and sacred obligation. The Kingdom, therefore, has adopted a Hajj-related policy and is exerting all possible efforts for its implementation:

- “that the Hajj and Umrah performed by every single Muslim are a comfortable experience full of serenity, tranquility, security and safety, and that each pilgrim is provided with the psychological tranquility that enables him or her to perform their worship in a quiet and undisturbed privacy”;
- “that the arrival, dwelling and return of pilgrims and Umrah performers should be the easiest, simplest, most competent, most comfortable and shortest as well as least difficult procedures”;

The Ministry of Hajj is the main authority to implement this policy and related programs, and assumes therefore the leading role for planning, supervision and control. The number of pilgrims is continuously increasing which indicates the huge tasks to organize and operate the transport of pilgrims during the Hajj season which is attributed to three distinct features of Hajj:

- Huge volumes of pilgrims: High volumes of pilgrims who are coming from abroad and from within the Kingdom perform the holy duty of Hajj each year. Transport in Hajj has to accommodate the movement of millions of pilgrims between the cities of Jeddah, Makkah and Madinah on the one hand, and between Mina, Arafat and Muzdalifah (the Hajj ritual sites within the city of Makkah) on the other hand. This requires the provision of huge transport capacities to accommodate this demand, including the provision of both physical infrastructure and transport services.
- Limited Hajj timeframe: The challenge of Hajj transport is further compounded by the limited timeframe for performing pilgrimage, leading to high seasonal concentrations / peaks and thereby putting existing transport infrastructure and services under immense pressures.
- Limited space at the Holy Sites: The Holy Sites comprise the areas of Arafat, Muzdalifah and Mina. These areas are embedded in a small urban area resulting in high congestion levels while pilgrims perform their religious rites.

Given the huge task of organizing the visit of ever increasing numbers of pilgrims, and considering the high importance which the Kingdom attaches to facilitate Hajj and Umrah, the Ministry of Hajj needs to strengthen its coordinating function and capacities to better coordinate the plans and the operation of involved agencies.

Improving transportation at the holy sites is a continuous challenge, where enhanced bus transport through shuttle services, better parking facilities, as well as better pedestrian walkways could better



facilitate movements and transportation during Hajj. The use of private cars by national pilgrims is another area of concern since it causes major disruption of the urban traffic. Better and attractive programs for organized tours for national pilgrimage maybe one approach to ease the traffic problems. Further the expansion of dedicated public transport systems at and between the holy sites are understood to be essential for managing Hajj transportation.

3-5. Transport Safety

Road Safety

The road system of the Kingdom is well developed in terms of network and quality, and road transportation for goods and passengers has evolved as the principle mode. Further, the use of private vehicles has become essential for urban and country wide movements, whereby high economic growth and rising income levels lead to higher levels of motorization and increasing traffic volumes. As a result traffic safety of the Kingdom is deteriorating and the annual accident death rate caused by accidents on the spot of about 6,600 fatalities, according to traffic police data, ranges at the highest level in international comparison. This presents a terrible loss to the society and burdens the national economy.

All concerned Ministries and authorities are aware of this development and many steps and activities have already been initiated to mitigate this problem. While reviewing the present road safety activities it becomes obvious that only coordinated approaches can bring desired results. Road safety in the Kingdom, like in any other country, is a very complex interaction between the roads, the driver's knowledge, driving behavior and culture, applicable rules and enforcement, as well as the awareness of all participants in public traffic.

The responsible authority for overseeing and regulating traffic is the Ministry of Interior with its many subsidiary agencies. The Ministry of Transport and the Ministry of Municipalities and Rural Affairs are responsible for establishing and maintaining the road infrastructure. Since both traffic and roads are inextricably intertwined when considering road safety, high levels of coordination are necessary to apply a clear leadership for providing direction and managing traffic and its safety. Coordination of road safety through the National Traffic Safety Committee under the umbrella of KACST has not been effective in delivering such necessary directions and coordinated programs to improve road safety.

Rapid traffic developments in the Kingdom are a challenge for the administration and the regulatory instruments. The roads of the Kingdom are open to international traffic with increasing numbers of cars traveling abroad or visiting the Kingdom; therefore conformity to international standards as agreed in the Vienna UN Conventions on Road Traffic and on Road Signs and Signals from 1968 can facilitate improvement of road safety and harmonizing rules with neighboring countries. These standards have been agreed by the contracting parties on the basis of their collective experience to better regulate traffic and increase road safety. Participation of responsible authorities in road safety programs of international organizations such as OECD with its International Road Accident Database³ (IRTAD), the

³ <http://www.irtad.net>, IRTAD is an international database that gathers data on traffic and road accidents from 28 out of the 30 OECD Member countries. IRTAD operates within the framework of the Joint OECD/ECMT Transport Research Centre. Most OECD countries are represented by National Coordinating Centers. IRTAD participation is also open to non-OECD countries.



Global Road Safety Partnership⁴ (GRSP), and in respective UN committees provides opportunities for experience sharing and offer new ideas and concepts.

While the urban road infrastructure is being built in a very generous way, wide roads are often difficult or nearly impossible to cross for pedestrians. The lack of pedestrian friendly urban roads certainly contributes to high numbers of pedestrians involved in traffic accidents in urban areas. The analysis indicates that road design, urban traffic engineering, urban planning, rules and regulations, law enforcement, public awareness building and training of drivers are interrelated areas of present traffic safety problems. A better road safety may only be achieved if measures and activities are thoroughly coordinated among all stakeholders. ADA has made good efforts in coordinating municipal tasks, urban planning, traffic management and traffic rules enforcement by the traffic police with positive achievements.

Civil Defense and the Saudi Red Crescent Authority are specialized for accident response and the Ministry of Health with its hospitals tries to cope with the demand for trauma care capacities, accidents response times are a key parameter when planning safety features facilities and allocating necessary accident response facilities.

The average technical conditions of vehicles can be considered as good and is certainly attributed to the vehicle inspection scheme. The recently introduced mandatory third party liability insurance for vehicles is another important step for regulating the use of vehicles, and the validity of the vehicle operating license could be closer connected to valid fitness as well as insurance coverage like it has become practice in other countries.

Transport Safety

Improvement and adaptation of safety-related regulations and procedures for all transport modes is already a main concern of all responsible Ministries and agencies of all transport sub-sectors. Numerous actions have been taken to improve transport safety and comply with international safety standards such as for dangerous goods transport on roads or maritime safety. With commercialization and private sector participation of transport services such as for aviation, railways, and ports, safety responsibilities which were previously embedded in the organizational structure of public entities are now to be transferred into regulatory systems.

International safety standards and overseeing organizations such as ICAO for aviation, IMO for maritime shipping, or international conventions for transport of dangerous goods increasingly require enforcement and oversight structures for transport safety at the national level. Moreover the increasing complexity of safety regulations compliance with safety standards also calls for good oversight and coordination regimes.

3-6. Environmental Protection

Environmental impacts from transportation are rapidly increasing not only due to population growth and increasing urbanization, but also due to the high growth of motorization in the Kingdom. Moreover international research proves that transport pollution has serious effects on human health. The 8th Development Plan identifies transport as “major source of pollution in urban areas” and the Long Term Strategy of the Kingdom calls for the conduction of Environmental Impact Assessments EIA in

⁴ <http://www.grsproadsafety.org>, The Global Road Safety Partnership (GRSP) brings together governments and governmental agencies, the private sector and civil society organizations to address road safety issues.



transport projects and demands public awareness campaigns and the promotion of “environmental friendly engines”. While considering environmental impacts of transport in the Kingdom three main issue areas were identified:

Environmental Impact Assessment

Environmental Impact Assessment has become compulsory for major transport infrastructure projects in the Kingdom; however, present practice shows a number of shortcomings in this regard. Instruments such as by-laws, coherent regulations, coordination mechanisms between involved agencies, human and institutional capacities, public participation, availability of environmental data and law enforcement are not yet well established and need to be developed by the environmental authority PME.

Regulation of Vehicle Emissions

Emissions from vehicles are understood to be the major source of air pollution in cities, thus posing a health threat to the urban population. Higher vehicle emission standards and better fuel qualities similar to those which are applicable in Europe could reduce vehicle emissions in the Kingdom up to 90 %.

Present Saudi road vehicle emission standards are low compared to other developed countries and the transition to regulate and introduce cleaner car technology in the Kingdom is a major challenge. It will require new regulations for import of cars, new testing facilities for vehicle inspection, and encouragements for vehicle owners to change towards cleaner cars. For cleaner fuel supply Saudi ARAMCO is introducing gradually a number of measures which lead to reduced levels of sulphur and other pollutants in diesel and petrol. Both vehicle technology and fuel quality are inextricably intertwined and only achievements in both areas are leading to reduced vehicle emissions levels.

In addition international experience shows that awareness about transport related environmental impacts is vital to change the behaviors of the drivers. Only few awareness campaigns in this field were conducted in the Kingdom. For this purpose studies may be helpful to improve understanding on traffic-related pollution and the impacts on the health of the people.

Regulation of Services and Material Disposal

Incorrect disposal of used vehicles along in the roads and in remote areas are not only an environmental problem but as well a cause for high follow-up costs for the society. Same occurs with the disposal of used spare parts of cars especially parts of the engines or the brakes of the vehicles. If the vehicles and spare parts are not professional disposed, future environmental problems can occur mainly regarding ground water pollution and impacts on wildlife.

Further fuel stations in urban areas are often in substandard condition bearing the risk for oil spill, groundwater pollution and benzyl emissions. Stricter regulation and enforcement in this regard may be necessary to ensure the safety for citizens and the environment.



4. NTS Policies

The rapid economic developments in the Kingdom have a direct effect on the transportation sector in such a way that the transport activities are growing faster than the economy. A second important fact is the nature of the transport market. While looking at the transport sector as a whole it is highly competitive with many different competing companies which provide all sorts of transport services. This generates wide scale employment in many different fields for the people in the Kingdom. And finally good transport infrastructure and well functioning transport services are essential prerequisites for:

- Business development in all regions of the Kingdom
- For providing access to markets
- For the cohesion of the society across all regions

One can say that competitive transport services and faster and unimpeded transport logistics is reducing the economic distance to the markets within the Kingdom as well as globally.

While there is agreement on a common Vision and common Strategic Goals, the challenge however is to translate this Vision and the Goals into key policies and targeted actions. The importance of these policies and actions becomes obvious when considering the complexity of the sector with over thirty government agencies on the one side and numerous operating companies which are delivering all sorts of transport services on the other side. To get all these players to pull towards the same direction calls for coordinated actions and decisions. In this regard the NTS Policies shall provide guidance to:

- Retain awareness of the overall NTS objectives
- Give special focus to important policy areas
- Provide guidance for decisions and actions

During the NTS Phase II Development the Analysis which grouped over hundred (100) Issues in six (6) Programme Areas also suggested that those Issues were related to important policy areas. While looking at those policies it was found that four particular areas were of special importance for transport sector of the Kingdom and for guiding the National Transportation Strategy:

- 1. Shared Responsibilities for Transport Sector Development**
- 2. Public and Private Sector Partnerships**
- 3. Regional Integration and Participation in Global Markets**
- 4. Integrated Development and Operation of Transport Infrastructure**

4-1. Shared Responsibilities for Transport Sector Development

Rapid urbanization and the need for reinforcing the social fabric and strengthening cohesion of the regions increases the pressure on Government to provide social services, health, transportation, housing, education and jobs. In response to increasing demands on the quality and quantity of services from a modernizing society with growing expectations, the Government is developing its administrative and institutional systems and restructuring its public agencies. It is in the process of enhancing service delivery, rendering it cost-effective not only at the central level, but also in all regions of the country.

The Kingdom's development plans and the future vision of the Kingdom's economy underscores a national commitment to the people *inter alia* by supporting private sector investment as the driver of



future growth and promoting further diversification away from heavy reliance on oil resources. It is also avoiding negative impacts on the environment and optimizing the efficiency of the public sector including a reform process towards greater transparency, participation, decentralization and local governance. The full realization of economic potential however hinges upon addressing specific structural limitations and challenges, including lifting economic and fiscal barriers which have so far protected some sectors of the economy, strengthening local competitiveness and creating greater economic transparency.

Concerned governance efforts shall result in more equitable development opportunities between various segments of the society and regions of the country, which, in turn, will help mobilize national capacities – the public sector, private sector and civil society - to take advantage of the global market and better respond to its challenges.

NTS in this regard intertwines with the Kingdom's governance efforts at different levels and areas on the one side through measures that shall more effectively align and strengthen mandates, and on the other side through the thrust of the Action Programme. These efforts shall enhance efficiency and accountability of the public sector with stronger local communities and institutions.

The Kingdom's transportation sector development, in line with the Vision and Strategic Goals, demands both clear and operational mandates and their fulfillment by responsible institutions, and best possible compliance with given regulations by all implementing agencies, while retaining awareness of the overall objectives.

Present transport sector mandates of the Kingdom include clear directions such as the setting of environmental standards, coordinating Hajj and Umrah transportation, developing the aviation sector, building roads and railways and ports, or allocating the responsibility for planning the coordination of transport infrastructure. The fulfillment of these mandates however has become a focus area of NTS to better achieve compliance with regulations. This includes the consideration of meaningful measures for implementing and enforcing regulations. And while formulating regulations and setting standards the mandated authorities may need to exert in this process more efforts to include concerned parties and stakeholders.

An example are mandatory Environmental Impact Assessments (EIA) for major transport infrastructure projects, for which any lacking implementation compliance shall be addressed through measures by PME which may include practical guidelines, capacity building activities, and better communication links between PME and implementing agencies.

For other evolving transportation areas such as road safety or Multi Modal Transport clear responsibilities are missing, since responsibilities are traditionally attached to modal and infrastructure related authorities. These issues however are of a crosscutting nature and known practices of the past alone are not sufficient to deliver satisfactory results. NTS therefore focuses on establishing clear mandates for responsible institutions to better coordinate actions and promote for example road safety or multi-modal transport integration in the Kingdom.

Efforts of the Government to establish sound regulatory frameworks need to include comprehensive response mechanism to achieve best possible compliance by implementing agencies. While participation in the formulation process is important the implementing agencies need to address a continuous development of its implementation and enforcement mechanism by applying modern management techniques, advanced technologies, including IT and e-government systems.

This comprehensive approach to fulfilling transport sector responsibilities and compliance with regulations is footed on a shared responsibility among all transport sector players to achieve the Vision and Strategic Goals.



4-2. Public and Private Sector Partnerships

The role of Government in the transport sector is changing. Whereas it provided in the first decades of the development of the Kingdom essential infrastructures and services to the citizens and to the economy, it is focusing now on enhancing the quality and sustainability of both infrastructure and service provision.

Substantial efficiency gains are expected by shifting responsibilities, accountability and – where appropriate – ownership in infrastructure and services to both local and regional bodies and also to the private sector. However, the Government continues to play a key role, such as for regulatory and legislative functions, by maintaining ownership of selected assets and steering development and promoting innovation.

These shifts refer to three areas: devolution of responsibility, separation of functions, as well as stronger private sector involvement in the provision of transport services.

The devolution of responsibility to local bodies encourages accountability and responsibility among regional and local decision-makers. Given their proximity to local infrastructure and transport service users, local decision-makers are often more competent to take decisions and react more quickly to needs. Regional and local ownership further enhances and encourages diversity of ideas and innovation with regard to tackling local challenges.

The separation of Government functions (regulatory, legislative, implementation/delivery, monitoring) in service and infrastructure provision contributes to enhanced accountability, to increased quality of service delivery, and encourages a competition of ideas. The efficiency of the transport sector can be significantly improved through the separation of management functions from those of regulatory oversight, which is a prerequisite before commercialization and privatization of services.

Commercialization and private sector involvement aims at operating transport services under corporate financial structures that combine risks and success, while being exposed to market forces. The benefits are competitive prices, improvement in the quality of services and a retreat of public sector funding. Commercialization, as a first step towards private sector participation, establishes managerial corporate leadership and decision making and higher flexibility to react to market demands with investments and service innovations. Exposing transport service to market forces and encouraging the private sector to participate in this market taps on the potential to diversifying and expanding the Kingdom's transport industry by delivering efficient services. Divesting public transport services into commercial entities however requires, at the same time, deregulation of tariffs and market regulatory measures to ensure a competitive environment.

In all sub-sectors the devolution of responsibilities needs to be accompanied by the provision of financial means, or respectively incomes, for the newly established agencies. As the provision of a sound and sustainable financing framework is a major prerequisite for increased private sector participation, the Government's responsibility is to provide adequate legislative and institutional foundations to enable re-financing of private investments independently from the availability of public funds, and the ability to be able to consider user-financed schemes.

While the policy principles for Public and Private Sector Partnerships are guiding the overall development of the Kingdom, NTS includes a number of measures with regard to devolution of responsibility, separation of functions and increased private sector participation that are based on already launched Programmes that are consistent with international best practices:

Ports: In order to allow ports to quickly respond to market requirements, a higher degree of freedom for ports, with regard to their planning, funding, pricing, and operation shall be pursued. Although the port terminals are professionally operated by contractors, their development is hampered by a stringent tariff system and as public entities there is no established commercial environment that combines financial risks and success. NTS therefore aims at a policy of creating port terminals into



business units under corporate frameworks which may remain in public ownership. While the ownership of ports is always associated with national and strategic consideration, there are many options possible, including the participation of local communities and regions, or partly or wholly divesting into private ownership.

Aviation: GACA is in the process of separating regulatory functions and operational activities. This process has already been initiated and it divests airport operation into a commercial environment and leaves the authority with regulatory functions. A further intention is to reduce direct and indirect subsidies as those have evolved with the public sector and establish fair market conditions for commercial airlines that operate domestically. A further issue is the provision of air services to less dense regions which are being considered as a public service obligation (PSO). With the new arrival of commercial airlines the subsidy structure of the past is not workable anymore and a new support mechanism to aviation services (which may include subsidies) needs to be found for concerned regions and cities, to maintain such air services.

Railway: The institutional arrangements for the expanding railway network include a Railway Commission for regulating railway operation. Whereas railway safety and interoperability are the main concerns of the commission, NTS also favors the development of commercial and competitive rail service for freight and passengers and that the track shall be accessible to sector operators who want to establish such services. The Railway Commission needs to concentrate on the need to deal with market regulations in order to ensure healthy competition.

Urban Transport Systems: NTS encourages the move from centrally administered systems such as licensing of urban bus transport, or planning of urban transport at central levels towards establishing local branch offices in each region. These branch offices should then be responsible for the procurement of transport services from commercial operators. This however requires the establishment of a regulatory framework for the Kingdom which sets out the basis for award and regulations of transport service contracts.

Inter-Urban Bus Transport: MOT is presently evaluating inter-urban bus services and NTS Actions include the establishment of a competitive regime under which private operators should provide competitive bus services in the Kingdom.

4-3. Regional Integration and Participation in Global Markets

The Kingdom is building more linkages with neighboring countries and with international markets. The Kingdom's strategic location is along world trading routes and, with the accession to WTO, its role in international trade is set to grow. The integration with regional and international transport networks for land, sea and air is imperative to enhance competitiveness of the Kingdom's economy to improve the investment climate and to facilitate economic diversification. These trends call for enhanced efforts to align with regional Programmes such as of GCC and adapt to (and introduce where necessary) international standards and practices for transport infrastructure, operations of vehicles, cross border movements and trade facilitation. While the Kingdom is already evaluating certain international conventions, NTS requires a stronger focus on aligning to internationally agreed practices. These international ties will strengthen international transport linkages, reduce impediments to cross border movements and simplify international trade procedures. They will also result in better road and transport safety.

The Kingdom has ratified the regional UN-agreements on the development of the road and the railway network in the Mashreq Region. This will enhance the connectivity of infrastructures and services with neighboring countries help to create an alignment of the planning processes. Other regional efforts are the studies for the development of a Regional Railway Network under the initiative of the Gulf Cooperation Council (GCC).



Common international standards for infrastructure design and operations are vital for interoperability for railway and establish uniformity for international road traffic. Railway standards are established by Union International Camion, in Paris (UIC) as well as with Technical Specifications for Interoperability (TSI) developed under the initiative of the European Union (EU) to ensure interoperability to neighboring countries and regional networks. Whereas uniform standards for road signs and signals as well as road traffic are internationally agreed by the 1968 (G) Vienna Conventions.

For freight transport operations, NTS is giving consideration to a host of bilateral and international agreements and conventions which facilitate customs procedures and cross border movements, transit transport, and international road transport operation particularly for Road Hauliers of the Kingdom. While these agreements are yet to be ratified by the Government, its implementation may become a main concern of the National Transport and Trade Facilitation Committee and requires a high level of cooperation among all related agencies.

4-4. Integrated Development and Operation of Transport Infrastructure

Transport infrastructure development is primarily single mode oriented where Ministries and authorities establish their plans for its responsible infrastructure parts and existing roads, ports, airports, and railway demonstrate high levels of achievement in this regard. However, it is also acknowledged that intermodal integration is most important and that the transport infrastructure can be more efficiently developed by giving further consideration to intermodal interactions during early planning stages.

A better coordination of different infrastructure parts such as airports, ports, railways, roads, and terminals and their interconnectivity particular in the context of multi modal transport service for freight and passengers, will deliver higher values to the users. Expected synergies and resulting opportunities for the transport service industry will yield additional benefits and higher returns of infrastructure investments to the Kingdom and its society. NTS therefore addresses the coordination of existing plans for different transport modes through introducing a National Transport Infrastructure Plan that encompasses the planning and implementation coordination of all modal master plans.

Multi Modal Transport opportunities however are only realizable if their operation is not hampered by regulations and non-physical barriers. Its development is a key focus area of NTS to promote transport integration and is designed to improve intermodal cargo movements at ports (ship – railway and/or ship - truck), airports (truck – air), and at dry ports (railway – truck) according to the highest international efficiency standards and procedures. A seamless Multi Modal logistics chain will reduce transport time and costs for the benefit of the whole economy and will reduce the economic distance between the Kingdom's regions and global markets.

A good example for multimodal logistics in the Kingdom is the rail container services to Riyadh Dry Port which offers convenient services to customers; although present performance levels of rail operation, port operation and terminal handling can be much improved. Another example however demonstrates that international sea-air transport services can not be competitively developed because of non-physical barriers set by customs procedures though the close proximity of the container terminal at Jeddah Port and the Jeddah international airport. The seaport at Dammam is a similar situation which cannot currently dispatch transit containers by truck to Bahrain.

Transport integration issues are prevailing for passenger transport in urban centers. While urban transport systems need to be established the municipalities have also to address the interconnectivity of different urban and other transport subsystems such as airports, bus terminals, railway stations, and coordination of service schedules.

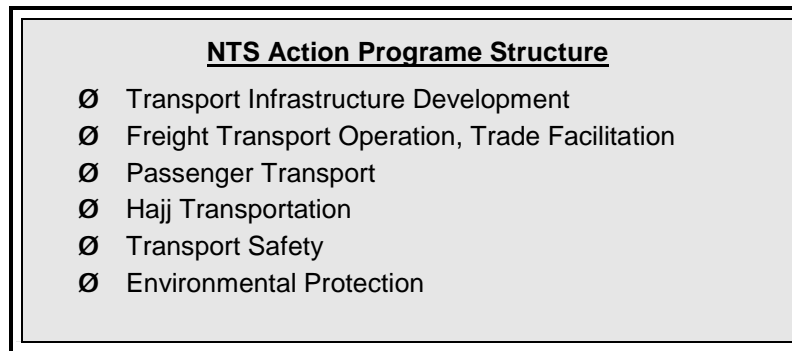


5. Action Programme

The Action Programme of the National Transportation Strategy represents the physical tool to bring about agreed changes and agreed actions which have been considered as important to achieve the Vision and Strategic goals.

The Action Programme structure results from the NTS Analysis which concluded that issues relate to more than one agency and that there are multiple relationships of issues with regard to the Strategic Goals. The Programme embodies in this environment a practical and operational platform to address relevant issues by implementing concrete actions and projects.

The substantive structure of the Action Programme takes principle transportation functions into consideration while distinguishing between the provision of transport infrastructure, freight transport operation and trade facilitation, and passenger transportation. In addition there are three prominent interdisciplinary areas that relate to transport and traffic safety, environmental protection, and to the organization of Hajj and Umrah transportation, all to which the Kingdom attaches the highest priority as they are most important for the society.



The Vision and the Strategic Goals apply to everyone and provide guidance to all transport developments and projects, and to all kinds of regulations and processes. There are still many issues unresolved and their complexity and diversity suggests that they are unlikely to be resolved through single tasks by individual agencies.

At the same time it is understood that the Kingdom's administration and the legislative framework is gradually adapting to these goals in accordance with given mandates and in the course of accomplishing regular tasks and duties. It is further understood that NTS cannot and shall not replace existing structures, responsibilities, or proceedings. The intention of NTS with its Action Programme is rather to provide a stronger focus through coordinated approaches of concerned agencies and stakeholders, whereby each of the Programme Areas shall generate specific thrust in its particular field, reaching towards the common goals.

While the individual Action Programme Areas with their subject related activities and projects shall apply a dedicated thrust, the NTS Policies (as outlined in Chapter 4) are framing the principle philosophies for the Kingdom's transport sector in general and for implementing the Action Programme across all areas in particular.



5-1. Programme Area: Transport Infrastructure Development

This Programme aims at improving efficiencies of the national transport infrastructure, which can be achieved through better integration of planning processes in support of multimodal transport and through promoting commercialization, private sector participation, and competition for infrastructure facilities. The **Programme Area – Transport Infrastructure Development** with its selected actions is designed to generate specific momentum and is expected to achieve progress towards higher levels of transport infrastructure efficiency and initiate additional impulses for economic growth. Hence this thrust direction contributes directly towards the Strategic Goals **Efficiency** and **Socio Economic Development**.

Integrated infrastructure planning and development has to be built on established and well functioning planning procedures of the responsible authorities. Measures will strengthen MOT's planning role, coordination, mechanisms and tools according to its national infrastructure planning mandate, in order to prepare a medium and long term National Transport Infrastructure Plan. This plan will give consideration to intermodal transport interactions during the early planning stages, the sequencing and scheduling of infrastructure projects, while also taking intermodal context, project priorities and feasibilities, as well as realistic longer term budget expectations into account. Linking planning and financing aspects and addressing strategic aspects and priorities of important infrastructure projects at an early stage is expected to provide better guidance to the preparation of the national development plans and to annual budget allocation and implementation.

It is clear that the quality of such planning and decision processes depends on the availability of accurate, comprehensive data and statistics. The availability of fundamental statistical data for the transport sector is most vital, and therefore a common transport data system shall be established to facilitate all planning activities whether for individual studies or for national planning. The action Programme therefore includes components to expand and strengthen the range and format of national transport data and statistics.

The financing and operation of transport infrastructure in Saudi Arabia is historically rooted in the public sector, but developing economic prosperity over the past decades, and associated growth of the transport sector, has lead to increased levels of transport service volumes that are sufficient for competing commercial and private sector services. This development allows for the public sector to retreat from its earlier public funding obligations. This transition to commercially operated infrastructure and its opening to market forces present many opportunities to benefit from more efficient service levels and responsiveness in providing infrastructure facilities. Hence concerned authorities will continue the gradual retreat from operational activities, and at the same time, their regulatory functions need to accommodate promotion of commercial operations and private sector investments, as well as regulating healthy competition.

Still the provision of essential infrastructure such as the expanding road network remains a genuine task of the public sector and it is a major concern to apply best service quality which depends on efficient road maintenance and management. While the road administrations are continuously improving their road management systems, inherent budget procedures and allocations are to be evaluated to better address the balancing act between maintenance and investment needs.

The expansion of the railway network is underway with private sector involvement and for this complex infrastructure the authorities have to address oversight and regulation of track access, track management, maintenance, and healthy competition of rail transport services. The Programme Area also includes action with regard to the commercialization of airports and port terminals to enable them to act more freely and successfully in their own corporate framework whether under public or private ownership. While the public sector remains as landlord, production assets will be transferred into a commercial sphere under corporate frameworks thus enabling those entities to increase productivities and act more independently in their markets.



Programme Actions

Action 1-1: Comprehensive Integrated Transport Infrastructure Planning

Scope: To complement existing instruments and procedures for the planning of roads, railways, ports and airports and to achieve better infrastructure connectivity for multi modal transportation a medium and long term a National Transport Infrastructure Plan is to be established. The plan will merge the master planning for all individual transport modes with special focus on intermodal transport interactions and multimodal transport needs of freight and passenger transport, and also consider national development priorities and strategic directions for economic, spatial, urban, industrial developments as well as connectivity with neighboring countries and for international trade. The planning horizon will need to extend over a period of at least 15 years by estimating expected transport volumes and trends based on traffic censuses and modeling. Further, the plan will need to simulate and optimize sequences for implementing envisaged new construction and rehabilitation projects as well as considering maintenance needs of all modes in accordance with realistic budget expectations over the planning period.

Components:

- Identify the scope of work and planning methods for elaboration of the National Transport Infrastructure Plan and formulate terms of reference.
- Study and evaluate how to optimize maintenance budgets and operations for efficient road management that supports necessary maintenance work of existing roads in line with the economic life span.
- Preparation and adoption of the National Transport Infrastructure Plan

Responsibility: The **Ministry of Transport** coordinates the transport infrastructure planning of all transport modes; therefore **MOT** with its concerned departments assumes the leadership and responsibility for implementing all concerned activities. This plan shall be prepared in close liaison with **MOEP**. Key contributors to this plan include: **MOF** (budget estimation), **MODA** and **GACA** (aviation), **MOMRA** (municipalities, urban roads and transport), **SPA** (ports) and **Railway Commission** (rail transport), **Ministry of Hajj** (Hajj and Umrah transport), **MOI** and **DOT** (vehicle fleet, road safety), **Border Guards** (border roads), **MOA** (agricultural roads), **SWCC** and **ARAMCO** (Pipelines), **PIF** (public infrastructure funding), **Saudi Customs** (border crossing facilities), **MOCI** and **Chambers of Commerce** (trade and industrial development).

Action 1-2: Formulation of Guidelines and Standards for Identifying Priorities for Transport Infrastructure Projects

Scope: In view of the many transport infrastructure projects the guidelines shall provide common standards and mechanism which will allow a better evaluation of priorities and feasibilities of projects, thus facilitating decision processes. While the guidelines shall be practical and usable by all concerned agencies, they shall also include appropriate recommendations for assessing internal and external costs and benefits as well as economic and social impacts and may offer sample assessments



and calculations for different infrastructure project cases. The guidelines shall be developed by considering best international practices and by conducting a close dialogue with all concerned Ministries, Agencies, and Departments. In addition to the elaboration of the guidelines, the project scope includes the adoption of the guidelines and capacity building measures during the introduction period (seminars and workshops).

Responsibility: To establish these guidelines is in the common interest of concerned agencies and the application will facilitate better decision making while allocating budgets and setting priorities for projects, therefore the lead agency for establishing these guidelines is **MOT** in cooperation with **MOEP** and **MOF**.

Action 1-3: Development of Intermodal Terminals and Logistics Centers

Scope: Freight villages at Yanbu and Jubail and the Dry Port at Riyadh are the only existing logistic centers outside the sea ports, although container transportation by railway from Dammam to Riyadh Dry Port demonstrates the potential of Multi Modal logistics for Saudi Arabia. Intermodal terminals play (in view of the expanding railway network) a vital role in the establishment of transport corridors and an intermodal transport network. Additional customer service at rail container terminals such as customs clearance, truck service to the final destination, container depot and repair, and return of empty container, provide additional service to the shipping lines for their equipment management and increases the attractiveness to transport users. Rail and road freight services cooperate closely for intermodal transport, where road transport is the essential partner to carry out the first or final leg of an intermodal transport chain. Against this background the feasibility studies for intermodal terminals and logistics centers shall identify and promote investment opportunities in support of developing economic and industrial centers and utilizing the new rail transport opportunities along the developing network. The focus of these studies shall include the development of dry ports for inland container handling in support of national and international multi modal transport, or promoting international transport service such as sea – air by utilizing existing port and airport terminals. These studies must consider establishing and operating such centers and services with or by private sector operators.

Responsibility: The establishment of such terminals and services may be in the interest of many different stakeholders such as **Municipalities**, **Regional Development Authorities** of cities or regions, **Railway Operator**, **Airport Operator**, and **Port Operator**. **MOT** shall therefore encourage these entities to undertake these studies and shall receive cooperation from all concerned authorities including, **Railway Commission**, **SARC**, **SPA**, **Saudi Customs**, and **SAGIA**.

Action 1-4: Harmonized Guidelines for Highway and Road Design

Scope: **MOT** which administers the national highway system has established manuals for highway design, construction and maintenance. Since then design features have further developed and at the same time the adoption of international agreements on road signs and signals provides guidance to enable the Kingdom to introduce international uniformity of roads, thereby facilitating international road traffic and improve road safety. The responsibility for the urban road and street network is managed by **MOMRA**, which sets out own manuals and design guidelines. Under this Programme action relevant guidelines and standards of **MOT** and **MOMRA** shall be



updated, harmonized and where possible adjusted to international standards and practices. The guidelines also include improved standards for building and operation of highway rest areas.

Components:

- Review and consider accession to the UN Convention on Road Signs and Signals, Vienna 1968 G
- **MOT** and **MOMRA** to update and harmonize related road design standards and guidelines including the incorporation of international uniform road signs and signals
- Introduce updated road signs and signals to the roads in the Kingdom and promote their value to traffic users
- To participate in related UN Working Parties to update and further develop the regulations of the Vienna Convention on Road Signs and Signals

Responsibilities: **MOT** is the lead agency to evaluate and process accession to UN Convention on Road Signs and Signals, Vienna 1968, but substantive issues need to be coordinated with **MOMRA** and **MOI**. Updating of concerned guidelines is the responsibility of **MOT** respectively **MOMRA** and therefore both agencies need to cooperate closely with regard to harmonization of standards for the road network of the Kingdom. **SCT** may also need to contribute to the guidelines with regard to road side rest and service facilities for travelers.

Action 1-5: Commercial Management of Transport Services

Scope: Airport and port terminals of the Kingdom have been established within their respected authorities and have been operated as government entity. To achieve higher efficiencies and competitive service levels transport services such as provided by port and airport terminals shall be transferred into private sector which combine operational and investment risks and profits within a corporate framework.

Components:

- **Commercialization of Port Terminals:** Port terminals are operating directly under SPA and the port financing system comprises revenues both from port operations and funds contributed by the state treasury. This system limits the commercial development of port terminals as it is linked to a strict application of port tariffs. Commercialization of port terminals shall transfer operational and investment risks and profits of port handling into the commercial sphere of corporate entities with SPA remaining as the landlord of the port infrastructure by leasing out port terminals and areas to port operation companies on a long term basis. Ownership of these terminal operating companies may either be public, private or combined as is considered appropriate. The commercialization process shall also include a more flexible setting and application of port tariffs that will allow terminals to act more competitive nationally and internationally and create an environment for competitive port development. Existing regulations for ports and terminal operations need to be reviewed and amended accordingly.



Responsibilities: MOT through SPA as the responsible authority for all ports will need to explore commercialization options for all its port terminals, review concerned regulations in coordination with MOF, and establish a plan and procedures for transferring its port terminals into commercial operations.

- **Commercialization of Airports:** GACA is the principle authority for regulating all commercial aviation activities, and GACA oversees development, operation and management of all commercial airports in the Kingdom. In compliance with international ICAO regulations the airport terminals are to be transferred into commercial entities separate from the regulating tasks of the authority. As a consequence all options need to be explored to find the best solutions for operating the airports within a corporate framework and when possible, with private sector participation. The higher commercial independence will allow the airports to develop their facilities and service in accordance with market demands. In view of the diverse economic environment of individual airports, these commercialization efforts will be continuing and individual commercial solutions need to be found which adapt best to local conditions.

Responsibility: GACA as the overseeing authority is responsible for the commercialization of airports in the Kingdom.

Action 1-6: Comprehensive Transport Statistics System

Scope: A comprehensive system of statistical information on the transport sector is the basis on which the necessary knowledge for informed business and policy decisions should be built. However present transport statistical information is sketchy and does not meet in terms of quantity as well as of quality the level required by users, thus a need for better data has clearly emerged as a priority in all transport areas.

Transport and traffic data for statistical purposes is collected in the Kingdom by many institutions and in many areas but it is not always processed to create useful statistical information for publication. Administrative data, e.g. road vehicle registration, air passenger movements, police accident records are usually available but need to be processed to proper quality standards including completeness, accuracy and timeliness. Besides the annual Statistical Yearbook, published by the Central Department of Statistics and Information, which contains very limited statistical information on the transport sector, various agencies publish some statistical data. Efforts made so far to consolidate available statistical information into a transport statistics publication or to produce at least a source list have not yet succeeded.

A Programme of essential statistical data shall be established that allows the Kingdom to comply with international obligations and at the same time produce a basic set of transport statistical information available to users. It is recommended that this should be developed along the lines of the "Common Questionnaire" of three main pan-European organizations dealing with transport statistics. Definitions complying with international standards are very important and shall be established and procedures developed and responsibilities allocated as to how data is to be obtained and reported. While these first actions are of highest priority, it is to be understood that the implementation of a comprehensive transport statistics system is a long term process with many successive steps and actions to be taken, before a comprehensive system is fully established.



Responsibility: Establishing and maintaining such a statistics system requires at the institutional level a strong coordinating agency possibly assisted by an inter-ministerial committee for the planning and implementation of all related measures. **MOT** with its broad portfolio for the provision of national transport infrastructure shall assume the key responsibility for implementing related actions and will closely cooperate with **MOEP, Central Department of Statistics and Information, and the General Authority for Civil Aviation (GACA)**. **All concerned Ministries and Agencies** are required to cooperate with **MOT** and contribute as necessary. Details of this Programme action are outlined in Annex III: Transport Data and Statistics Programme of this report.

5-2. Programme Area: Freight Transportation and Trade Facilitation

This Programme aims at enhancing transport operations in the Kingdom to facilitate international trade, which shall be achieved through promoting Multi Modal Transport, reducing border crossing impediments, strengthening governance and professional capacities, as well as ensuring competition and market access. The **Programme Area - Freight Transportation and Trade Facilitation** with its identified actions shall generate specific momentum for regional integration of expanding international road, rail, and maritime transport, and for efficient and integrated transport services to reduce the economic distance between the Kingdom's regions and global markets. This thrust direction contributes towards the Strategic Goals **Efficiency** and **Socio Economic Development**.

Professional representation of road transport hauliers and the freight forwarders community through the Chambers of Commerce is seen as not effective enough without having professional associations that combine experience and competence of their industries. Both, the road hauliers and the forwarder community are encouraged to establish such associations which will need to affiliate with their respective international associations IRU and FIATA in order to be fully effective. These new bodies are expected to represent their industry in the dialogue with the public sector and be instrumental in enhancing professional capacities of their members and in setting standards for the Kingdom.

Regulations and systems for road transport licenses in the Kingdom shall become more effective as to consider professional competences and to utilize advanced ICT systems and e-government solutions for their administration.

The expanding railway network and the transition from public sector operation towards commercial services is to be accompanied by substantial changes and efforts with regard to oversight, regulating uniform track and operational standards and ensuring track access and competition for commercial rail transport.

In support of regional integration and international land transport a number of multilateral and bilateral agreements frame international common standards such as for customs and transit procedures, multimodal transport, contract regimes for goods transport, permits for road transport, work conditions of drivers, and dangerous goods transport. Given the global orientation and regional integration of the Kingdom in the wake of WTO accession concerned authorities must attach priority to the adoption of such regulations and procedures and promote related trade facilitation measures.

Regional integration and common international standards are vital for participating in maritime trade and have impact on this sector by updating the maritime law in coordination with GCC countries, and by implementing safety, security, and environmental protection measures in compliance with international maritime conventions and standards.



Programme Actions

Action 2-1: Enhancing Professional Capacities and Competences of National Freight Transport Operators

Scope: The representation of the freight and transport industry only through Chambers of Commerce and national committees is not effective enough as to fully represent and service the interest of these companies. Therefore local associations for trucking companies and for freight forwarding companies shall be established according to regulations, to better combine the experience and competence of these sectors. The associations shall play a central role in developing and maintaining necessary professional and quality standards of their trades, and shall liaise with their international associations FIATA and IRU and adopt training Programmes and standard freight documentation and procedures for transport and shipping. A related action is the establishment of reputable training Programmes for professional competence that provide specialist courses to enable operators to be properly trained in all aspects of road transport. Best practices in this regard are training courses for the Certificate of Professional Competence (CPC) in domestic and international haulage, as has been adopted within the EU and other countries. While the professional associations are expected to maintain an active relationship with their members and offer services and assistance to them, they shall also represent their trades in the dialogue with policy makers and public authorities. The associations may be established within the framework of the National Transport Committee and the National Council of Chambers of Commerce to complement the chambers work.

MOT is the responsible authority for road freight transportation. Existing rules for concerned licensing are being revised and shall be implemented. Although operators need to meet a number of conditions to apply for or renew their licenses, professional competences of drivers and operators is not yet part of those requirements. Road transportation is a vital transport mode for Saudi Arabia's economy, and certification of professional competences for road transport operators and truck drivers has been shown to enhance service levels and traffic safety. The MOT is evaluating the introduction of professionally accredited certificates of CPC, as a further condition for granting road transport licenses for all commercial operations in passenger and freight transport.

Components:

- Establish associations for trucking companies and for freight forwarders in liaison with IRU and FIATA respectively, to achieve their accreditation for the training provided.
- Develop a licensing system for freight forwarding companies that ensures financial and operational capabilities and professional competences.
- Establish and enforce a clear Programme for freight forwarding operations.
- Introduce internationally approved and accredited training Programmes for specialist courses to enable operators to be properly trained in all aspects of domestic as well as international road transport. This to include ADR training for hazardous transport and the Certificate of Professional Competence (CPC).
- Revise regulations for the road transport licensing system to better ensure financial and operational capabilities and to include requirements for professional competences.
- Review and revise the licensing system for the transport of oversized cargo to better meet the specialist needs of contractors and users.



Responsibilities: MOT in close cooperation with MOCI, the **National Transport Committee** and the **Council of Chambers of Commerce** need to encourage its companies to form these associations and assist in liaising with IRU and FIATA. The **National Freight Forwarders Association**, if approved, in cooperation with the **Council of Chambers of Commerce** shall develop a licensing system for freight forwarding companies that operate in the Kingdom. MOT as the responsible authority for road transport licenses evaluates professional competence requirements for the licensing system and shall cooperate with the **National Road Hauliers Association** while concerned training Programmes, certification and accreditation systems are being introduced.

Action 2-2: Enhancing the Legal Regime for International Transport and Trade Facilitation

Scope: The legal regime which facilitates international transport for the Kingdom shall be adjusted to international standards and norms. The Action includes the accession and implementation of international agreements for road transport, adopting international standards for railway operation, concluding bilateral agreements on road transport, and revising the maritime law:

- **Adopting International Standards for Transport Operation and Trade Facilitation:** Different authorities of the Kingdom are concerned with the accession to a number of agreements and conventions which entails following actions:
 - **European Agreement concerning Work of Crews of Vehicles engaged in International Transport – AETR:**
 - (1) Formal accession to the agreement;
 - (2) Adjust national regulations for licensing road transport vehicles to ensure compliance with AETR rules,
 - (3) Adjust truck specifications, inspection regulations, and traffic code to ensure seamless enforcement of the AETR agreement for national and international vehicles operating on roads in Saudi Arabia;
 - (4) Participate in concerned UN Working Parties
 - **Convention on the Contract for the International Carriage of Goods by Road – CMR:**
 - (1) Formal accession to the convention and subsequent protocols,
 - (2) Participate in concerned UN Working Parties.
 - **European Agreement concerning the International Carriage of Dangerous Goods by Road – ADR:**
 - (1) Formal accession to the convention and subsequent protocols;
 - (2) Participate in concerned UN Working Parties
 - **Customs Convention on the International Transport of Goods under Cover of TIR Carnets 1975(G):**
 - (1) Formal accession to the convention,
 - (2) Apply, monitor and following up systems for international transit transport under TIR Carnet borne in Saudi Arabia under the auspices of the Council of Chambers of Commerce and in cooperation with IRU;
 - (3) Participate in concerned UN Working Parties, committees and IRU bodies.



- **Technical Specification for Interoperability of Railways (TSI)**, have been developed under the auspices of the European Union and are internationally accepted standards that enable international rail movements. In addition, a number of international standards regarding railway track and operations have been developed by UIC and provide guidance for ensuring interoperability of the expanding railway network of the Kingdom and future connectivity with neighboring countries. These international standards shall be reviewed and adopted for the Kingdom.

Responsibility: MOT is the responsible Ministry for accomplishing the accession for agreements and conventions for road transport matters, whereas **Customs** is responsible for the customs conventions. However, the accession process shall be accompanied by a dialogue with all concerned agencies and stakeholders. **Railway Commission** is the responsible body for adopting interoperability standards for the railway network. **SAGIA** is responsible for the Transport Facilitation Committee

- **Bilateral Agreements on Road Transport:** To facilitate and promote road transportation between Saudi Arabia and other countries bilateral transport agreements have emerged as international practice to regulate in a reciprocal manner the preferential usage of each other's road network in accordance with applicable national law. Saudi Arabia has concluded such bilateral agreements with some countries, however to geographically expand the international operating range of road transport operators of the Kingdom additional bilateral agreements need to be concluded. The Action includes:
 - Identify countries for which bilateral agreements for road transport shall be established
 - Negotiate and conclude bilateral road transport agreements with selected countries
 - Monitoring of international road transport development with contract countries and undertake regular adjustments and updating of these bilateral agreements regarding quotas for permits as required by national transport operators

Responsibility: MOT is the sole responsible authority for overseeing national and international road transport and they shall regularly coordinate and identify with national road hauliers through the **National Transport Committee** and the - to be established -**National Road Hauliers Association** the countries concerning bilateral agreements and respective quotas for road permits.

- **Revising the Maritime Law:** Present maritime law assigns responsibilities for regulation, organization and supervision of maritime transport to the Ministry of Transport. It is over 40 years old and does not fully reflect the needs of today's maritime industry. While MOT is the regulatory authority, implementing agencies are SPA for port state control, navigational aids, and hydrographical survey; PME for oil spill / pollution response; Border Guards and SPA and Border Guards for implementation of ISPS Code. The Saudi Shipping register does not offer necessary levels of acceptance for international lenders or national banks for providing loans to ship owners, and present register procedures are exhaustive and complicated, therefore Saudi owned ships are generally registered abroad. To address these issues MOT has started to draft a new Maritime Law which needs to be coordinated with GCC countries and shall encompass: related maritime conventions, best international practice regarding maritime safety, security and environmental protection, consider latest technological advancements in maritime



transport, allocate mandates and responsibilities, and regulations and procedures for the national shipping register that ensure acceptance to lenders and banks.

Responsibility: MOT (through SPA) is the lead Ministry to prepare the new draft Maritime Law for the Kingdom.

Action 2-3: Customs Clearance Capacities and Simplified Customs Procedures at Border Points

Scope: Present customs clearance capacities and procedures at the Kingdom's land border crossing points are presenting barriers to trade and international transport. Concerned issues include limited business opening hours of the Customs offices, long waiting times for trucks at land border points, insufficient parking for trucks at customs yards, as well as time consuming procedures at land border points and in ports. To reduce costs and transport delays which are caused by these impediments efforts that improve port clearance procedures need to continue and all options shall be explored for streamlining and simplifying border crossing procedures and facilities. The Actions includes:

Components:

- **Kyoto Customs Convention - revised 1999 (G)**, formal accession to the convention of the World Customs Organization.
- Explore options for a better risk assessment to reduce the number of inspections of vehicles but increase detection.
- Coordinate working hours in collaboration with the neighboring countries to better process and clear cross border traffic
- Upgrade customs clearance facilities at land border points.
- Improve electronic customs clearance systems and procedures which are compatible with international standards and systems such as ASYCUDA/ WCO accepted standards to reduce manual procedures and increase information levels and capacities for risk analysis

Responsibility: The **Saudi Customs Department** is responsible for applied customs procedures and facilities and shall work closely with **MOI, MOCI, SPA, and Chamber of Commerce**. Facilitation measures shall be coordinated at the **National Transport Facilitation Committee** with **MOCI, SPA, and the Chambers of Commerce** to meet the demands of the trade and transport industry.

Action 2-4: Information Communications Technology for Efficient Transport Management

Scope: ICT technology is entering into all areas of transport administration and management. The Government in this regard is promoting the introduction of e-government application to enhance the service delivery. Further trade and transport documentation is gradually developing towards paperless which are electronically communicated. These new processes allow simplifying and streamlining for example port operation and customs clearance procedures by adapting their operational systems to ICT technology.



Components:

- **Advanced e-Government Licensing System for Road Transport:** MOT is granting and administering road transport licenses through its district offices. The present decentralized of documentation leaves room for deviations and impedes enforcement and oversight of licenses at different district offices or of companies operating without licenses. The introduction of advanced ICT applications for managing and monitoring road transport licenses with a central database shall support the work of MOT and its district offices and simplify the application and renewal process for licenses and grant fair market access and prevents multiple applications. This ICT based system shall strengthen governance while expanding e-government applications at MOT, and shall facilitate safeguarding fair competition for transport operators and provide better statistical data. Work components include:
 - Identify and evaluate ICT system concepts and configurations for the MOT e-government application for road transport licensing. While this work needs to be based on thorough systems analysis it shall consider advanced ICT technologies within the MOT ICT environment and at the same time identify and evaluate organizational and administrative changes, and training needs.
 - Establishing and implementing the e-government application for road transport licensing, implementing related organizational and administrative adjustments; training of staff.

Responsibility: MOT with the Deputy Ministry for Transport is the sole responsible authority for road transport licensing. It shall cooperate with the **MOI**.

- **Information Communications Technology and Electronic Data Interchange for efficient Cargo Handling at Ports:** Customs has already embarked on introducing EDI technology through the Saudi-EDI System. At present there is an EDI system in place at JIP and KAAP. These EDI systems shall be expanded to export handling and customs clearance procedures and be interfaced with information systems of the terminal operators at all ports and dry ports.

Responsibility: MOT through SPA is overseeing the development of the port sector and shall assume the responsibility to promote this technology development; participating authorities include **Customs** and **MOCI**.

Action 2-5: Multi Modal Transport Development

Scope: Although operational procedures for Multi Modal Transport have evolved in the Kingdom, the service levels are below international commercial standards and performance. Better standards, regulations and facilities shall enable efficient integration of transport modes; therefore, Multi Modal Transport shall be promoted through a coordinated leadership to oversee its development in the Kingdom. Related actions include the setting of standards, formulating regulations, identification of transport opportunities, facilitating the dialogue among stakeholders and authorities, and initiating studies and projects. Particular components in this regard are:

- Documentation for Multimodal Transport shall be simplified; therefore the Multimodal Bill of Lading shall be approved in the Kingdom and accepted by all concerned authorities as a single transport document for door to door container transport.



- Riyadh Dry Port and the rail yard at Dammam are presently operated by a contractor under the auspices of the SRO. Although, present container transport service by railway to Riyadh is attractive to the shipping industry, it could operate more effectively and reduce shipping time by improving operational procedures at the terminals, and apply commercial oriented container train operations. On-carriage time to Riyadh which includes dwell times at the terminals could be significantly reduced. Improvement measures include
- (1) streamlining operational and customs procedures for handling of rail containers at Dammam to reduce transfer time between quayside and rail yard at the terminal;
- (2) Optimize container train operation and schedules between Dammam and Riyadh;
- (3) Modernize and expand inland container terminal facilities at Riyadh.
- Transit transport of containerized cargo between Dammam port and Bahrain may provide additional handling volume to the container terminal and truck operators at Dammam. Present customs procedures however are not supporting the development of this transport business segment. Customs transit procedures for bonded truck transport of containerized cargo on certain routes are to be established to enable the transport industry to expand their business
- Present customs for transit transport procedures for sea-air transit cargo are not conducive to develop this freight segment for Jeddah Port / Airport. Present delays are not competitive with other sea air transshipment points such as Dubai. These impediments shall be removed through establishment of Sea-Air transshipment procedures for Jeddah port terminals / airport that enable the freight industry to attract sea-air cargo to Jeddah and expand logistics activity at Jeddah.

Responsibility: MOT in its responsible function for all land transport modes shall assume the leadership to promote and oversee Multi Modal Transport development in the Kingdom and coordinate with the General Authority for Civil Aviation regarding air transport. Further concerned authorities include **Customs, SARC, Railway Commission, SPA, Port Terminals, and GACA.**

5-3. Programe Area: Passenger Transport

This Programe area aims at enhancing and further developing passenger transportation comprising urban transport systems and services, Kingdom wide passenger mobility by air, bus and railway, and considers transport aspects for tourism in the Kingdom. This shall be achieved through developing and operating integrated urban transport at city and regional levels, promoting competition of commercial services for all areas of passenger transport, liberalization of the aviation sector, and introducing rail passenger service along the expanding rail network. The **Programe Area – Passenger Transport** with its identified actions shall increase urban and interurban mobility of the people and offer attractive transport services at competitive price levels. The thrust of this Programe Area contributes towards the Strategic Goals **Efficiency** and **Socio Economic Development**. In view of the wide range of passenger transport services in the Kingdom concerned actions are related to the following areas:

- **Integrated Urban Transport Systems**
- **Inter-Urban Passenger Transport**
- **Aviation**
- **Tourism**



Integrated Urban Transport Systems

Public transport services play a crucial role in the development of urban areas. It is serving citizens who have no access to individual transport, is offering efficient alternatives to the use of private vehicles for those that have access to them, relieving congestion, and reducing local pollutant and CO₂ emissions of transport, which improves the environment for all citizens. Therefore related Programme actions are aiming at the development of viable and smart public transport systems in an environment where the provision of urban public transport services is minimal and the necessary institutions and infrastructure are not yet established. The actions necessary for setting up efficient public transport and to integrate it into urban transport systems are addressing the following components: Coherent policies and strategies that favor public transport by adjusting the relative attractiveness of public and private transport; a public transport industry structure that is amenable to regulation and is capable of responding to demand; a legal framework that enables transport plans to be imposed on the operators as service obligations, balanced by commercial incentives; and an effective professional agency at the city level responsible for making public transport policy as well as planning, service development, monitoring and regulation.

Inter Urban Passenger Transport

The objective for further developing inter-city bus market is to introduce competition for, and within, the market. This aims at encouraging innovation, a more extensive network including more direct city-to-city connections, services to more secondary destinations, and more segregation of the market to cater for different user groups. The market characteristics of the inter-city bus sector indicate that a controlled competition in the inter-city bus market is beneficial for improving innovation and service quality. The transition towards opening the inter-city bus market to other operators requires regulatory measures that address conditions for market entry, market structure, the regulation of services and safety regulation of vehicles and drivers.

With the expansion of the railway network many new opportunities will arise for additional intercity rail services, particular with high speed train service on intermediate routes. While rail operation is being transformed into the commercial sector, new passenger services may also be encouraged to develop through concessions and private sector participation.

Liberalization of the intercity bus and domestic air service and new rail passenger services are certainly entering into an intermodal competition but at the same time they will complement each other through increased intermodal connectivity. Therefore no restrictions shall be placed on inter-modal competition and each mode shall compete on its particular market characteristics and cost structure. Particular actions of this Programme area are aiming at setting up regulations for market entry and the market structure that are based on competition and shall attract new investment by the private sector. The regulatory framework and institutions shall ensure safety and service standards as well as market stability, but provide commercial operators freedom to compete in the market, through service development and innovation, establishing route networks and setting fares.

Aviation

Over the past decades the aviation sector worldwide has been undergoing remarkable changes that are characterized by liberalization and privatization of a strictly regulated sector, and commercialization of airports and passenger services. Since 2006 G (1427 H) these changes are taking place in the Kingdom with the privatization process of SAUDIA and licensing of two private airlines for operating domestic services. The responsibilities of the regulatory authority for aviation



GACA have included the operation of air navigation and of all civil airports, though these functions shall now be independent from the regulatory body. GACA is resolving the inherent conflict of interest between regulatory functions and operational activities by divesting airport operation and navigation services into separate business units outside the management of the authority.

Programme actions focus on the transition from public sector operated air services with entrenched tariff and subsidy mechanism towards a commercial and competitive service industry. A process which charges the authorities with many new tasks such as enhancing the efficiency and productivity of domestic services, reducing indirect subsidies, liberalizing tariffs, and ensuring public service obligations, while safeguarding the development of a healthy competition.

Tourism

The Supreme Commission for Tourism and Archeology (SCTA) is responsible for the development of the tourism sector and shall promote tourism as a new economic sector within the cultural environment of the Kingdom. A Sustainable Tourism Development Plan is guiding the sector development and many national and regional activities are being undertaken to strengthen this development. While tourist activities are being developed, available transport infrastructure and services have a vital facilitating role to play. In considering the needs of the tourism industry transport infrastructure can provide convenient access to tourist places, may offer particular tourism directions for travelers, and shall not disturb natural or cultural attractions. While responsible transport sector agencies are ready to assist and facilitate the tourism industry, they are depending on the cooperation and guidance from SCT and related agencies in the Kingdom.

Programme Actions

Action 3-1: Establish Transport Agency Branch Offices of in all Regions

Scope: This action addresses the evident need to consolidate responsibilities for urban transport planning; regulation and management into a lead agency in each city and at the same time provide alignment of the respective role of ministries and responsible agencies and their branch offices at the city-level. Efforts of several cities in this respect include Makkah / Madinah / Holy Sites area and Riyadh for which special development authorities have been established and independently funded. They are undertaking comprehensive urban planning while coordinating with concerned authorities and implement joint projects, though their functions overlap those of the municipalities. The functions for strategic transport planning, regulating building development, and regulation of transport need to be strongly coordinated in these new Transport Agencies, whereby their configurations depend on individual needs and local priorities and may be under MOT. Good practices indicate that government's role in a high-quality and integrated urban transport system includes the following tasks for which the Transport Agency shall have a key responsibility:

- (1) Develop integrated urban transportation strategies;
- (2) Plan the transport system coordinated with land use plans;
- (3) Set standards of service, environmental impacts and safety;
- (4) Provide funds for capital investment in new systems, make provision for subsidy, and ensure that best value is obtained for that subsidy;



(5) Employ commercial operators to operate the fixed-track and other services to the levels and standards specified by the authority, under a contract for a defined number of years, using competitive bidding and if necessary based on lowest subsidy required;

(6) Monitor the provision of services against the required standards and impose sanctions where warranted.

Responsibilities: The Transport Agency MOT at the present time is establishing branch offices at the city level in cooperation with **MOMRA, MOF, and Provincial High Commissions.**

Action 3-2: Establish Regulatory Framework for Urban Transport

Scope: This action is aiming at establishing a regulatory framework for the Kingdom that is based on a sound legal basis in respect to the rights and obligations of the transport agency and the transport operators, and to the procedures for the award and regulation of operating rights and entitlement to subsidy. In this regard the present tariff policy for urban transport services needs to be revised to a tariff system which allows flexible and service based pricing and enables tariffs to be integrated into the urban transport strategies of cities. The regulatory framework for urban transport operators shall provide the means by which the private sector is contracted to provide services according to the plans and will give operators confidence to commit the investment required to establish high quality system. The legislative format (such as a ministerial regulation) shall set out the basis for the award and regulation of transport service contracts and impose limits on the discretion of the authority. The regulatory framework shall include provision for the following issues:

(1) Type of regulation, allocation of regulatory power;

(2) Definition of requirements for public transport operators that reflect the desired industry structure;

(3) Definition of policies on pricing, cost recovery, taxation and subsidies;

(4) Definition of tender procedures as to frequency, scope, and coverage;

(5) Establishment of performance targets and accountability for their achievement within a sound legal basis;

(6) Definition of public service obligations to be defined, provision to be tendered, cost to be borne by sponsoring agency;

(7) Economic, social and environmental aspects;

(8) Monitoring, evaluation and enforcement. Transitional arrangements for implementation of these regulations shall include considerations concerning current urban transport licensing system for SAPTCO and the Coaster-operators.

Responsibilities: The regulations are to be elaborated by the lead Ministry **MOT** and with participation of concerned Ministries and agencies such as **MOMRA and Provincial Development Authorities.**



Action 3-3: Establish Integrated Urban Transportation Master Plans

Scope: The development of urban transportation master plans shall serve growing populations, enhance quality of life, and preserve economic viability of cities. The Transport Agency shall undertake integrated urban transportation master planning that provide a vision for multi-modal, smart and modern transport system by duly reflecting development needs, economic, social and ecological criteria, by identifying implementation schemes, timelines and enforcement needs as well as identifying responsibilities and funding needs. Plans at several levels form a hierarchy and shall be carried out in a structured, continuous cycle. The hierarchy of plans for the largest cities in the Kingdom shall include the following levels:

Plan Level	Horizon (years)	Frequency of Review (years)
1. Policies and objectives, including target public/private modal split	10-15	3-5
2. Strategies to achieve objectives	5	3
3. Transport infrastructure plan, integrated with land use plan	15-20	3-5
4. Public transport service plans by area and by transport mode	5	2
5. Regulatory framework for procuring private operators to implement service plans	2	1

Transport infrastructure plans shall cover the entire city and identify road and rail alignments and major supporting facilities such as stations and terminals. Infrastructure plans must be integrated with land use plans: the spatial distribution, density and type of land use determine the volume and direction of trips; conversely, the accessibility of a development site has a major effect on land values and the type of land use attracted. Public transport service plans are both geographical (covering all modes within a district) and modal (focusing on the rail, bus or taxi mode). The maintenance of a continuous planning process, managing implementation Programmes and feeding back performance data into the planning process requires high-level of professional skills. To ensure effective integration, at least the three lowest levels of the planning hierarchy shall be the responsibility of a single agency at city level.

The urban transport systems itself shall be planned as a 'modal hierarchy' with the role of each mode reflecting its particular characteristics:

- (1) Fixed-track rail or Bus Rapid Transit on the main corridors;
- (2) Conventional bus services on the less busy corridors and the main feeder routes to urban rail stations;
- (3) Minibuses, either running scheduled services or routed flexibly in response to demand, on the secondary routes and lower-demand feeder routes;
- (4) Taxis, to act as a supplementary mode to the scheduled modes, catering for trips not possible or not practical by public transport. Limousines, operating only on-call to cater for trips where comfort is a premium;



(5) Non-motorized modes such as cycling or walking are feasible in the cooler months and shall be encouraged by clearing routes of obstructions and hazards, provision of shade, more effective segregation from motor vehicles and protected road crossings.

Responsibilities: The planning responsibility is with **MOT, MOMRA, Provincial Development Authorities,** and the **Transport Agencies.**

Action 3-4: Develop Guidelines to ensure Mobility for those with Special Transport Needs

Scope: As part of the continuous improvement of the transport system, both in terms of accessibility and efficiency, strategies need to be developed that enhance access for disabled people. In respect to improved access for the disabled two issues shall be analyzed:

(1) Adaptation of all public transport vehicles with features that enhance accessibility,

(2) Provision of dedicated demand-responsive services using highly accessible vehicles for the disabled in terms of costs, implementation timeline and responsibilities. For access for the disabled, guidelines, mechanisms and implementation Programmes are to be developed.

Responsibilities: **MOT** is the lead to develop the Mobility Guidelines with participation of the **Transport Agencies** of the cities (**ADA** for Riyadh), **MOMRA, MOH, MOSocial, Branch offices of the Transport Agency,** and **Traffic Police.**

Action 3-5: Improving School Transportation

Scope: Improve strategies to provide better transportation of students as part of a multi modal transport system, and ensuring its effectiveness.

(1) Review best practices for school transport to improve special Programmes making school transport better.

(2) Integrate school transport in urban transport systems. This service shall provide higher standards of comfort and short journeys, quality, safety, security, necessary regulations and support for using the service. Higher grade students may use the public transport system.

(3) Improve rules regulations for school transport and establish necessary action Programmes.

Responsibilities: **MOT, MOMRA, MOH, Ministry for Education, Branch offices of the Transport Agency, Provincial Development Authorities,** and **Traffic Police.**

Action 3-6: Competitive Inter-Urban Bus Transport Services in the Kingdom

Scope: The further development of the inter-city bus sector is under consideration by government and the inter-city bus market shall be opened to competition. Therefore the potential demand and the commercial viability of the inter-city bus sector needs to be analyzed in order to consider structural and regulatory options for the new regulatory framework. These considerations need to include market entry conditions



and regulatory powers to be vested in government, as well as conditions with regard to the safety aspects of vehicles and drivers.

Once the competitive regime is established, it is critically important that the regulatory agency recognizes that its key role is to facilitate entry to the market and to ensure that the highest standards of safety are maintained. The agency must be sensitive to market conditions and must respond to market developments and demands.

Although intercity bus services are to be operated by commercial companies and being overseen by the central regulating authority MOT, the municipalities are an important partner in establishing these services. While municipalities shall have an interest to interface inter-city buss services with their urban transport infrastructure and other modes and terminals such as railway stations and airports their role is to provide terminals and stopping places in accessible, central locations.

Responsibilities: The regulating authority for inter-urban bus transport is **MOT** which has already initiated a number of related steps. **MOMRA** is responsible for providing infrastructure to support bus services.

Action 3-7: Intercity Rail Services for Passengers in the Kingdom

Scope: The introduction of premium passenger services between Riyadh and Dammam improved rail passenger service on this route. This indicates the competitiveness of rail transport compared with bus and air services particular for travel over medium distances. With the expansion of the rail network additional opportunities for rail services between urban centers may arise to develop attractive intercity services. Following activities may support the development of intercity rail passenger services:

Components:

- Studies that evaluate the feasibility of intercity connections along the developing rail network services shall be supported by the overseeing authorities
- Explore options for rail transport concessions for commercial passenger transport services in the Kingdom and establish a regulatory framework that ensures safety and service standards as well as giving commercial operators freedom to compete in the market, through service development and innovation, and setting fares.

Responsibilities: **MOT** and the regulatory authority is **Railway Commission**. Related feasibility studies may be undertaken by any interested party which may include, **private sector, MOMRA, Development Authorities**; however these evaluations shall receive the support from all concerned authorities.

Action 3-8: Strengthening Regulatory Functions for Aviation to Promote Competitive Air Transport Services

Scope: While airport operations and air navigation services are being divested the main tasks that remain with GACA are the regulatory functions. In addition to technical and safety regulations, the area of regulating market access and fair competition is a whole new field for the authority and requires new capacities. Building these



capacities and managing the transition from public operated service to a new competitive market structure has been approached by a gradual process which, however, needs highest attention and measured responses by the authorities.

Components:

- Establish equal market conditions for fair competition for all operating airlines. This includes equally rendered services by airports, air navigation, customs and immigration authorities. GACA shall therefore closely monitor service qualities and establish common service standards and guidelines.
- Reduce direct and indirect subsidies for domestic air services through liberalizing the tariff structure, and making it subject to market forces and competition. A strategy has been developed for reducing governmental subsidy throughout the period of full liberalization of the tariff until the domestic transport market has been settled.
- Create an instrument for supporting obligatory routes with sufficient passenger volumes. This can be achieved through tendering for national carriers to meet this service for a fixed amount of money.
- Provide equality for all national companies operating in the domestic sector in terms of governmental subsidy according to their respective degree of participation in the domestic transport when needed.

Responsibilities: The responsible agency for regulating aviation is **GACA**, however its efforts to strength the regulatory functions require a close cooperation with **MOT, MODA, MOI, MOF, Customs, and Immigration.**

Action 3-9: Guidelines and Standards for Tourism Transport Service

Scope: Tourism development is a core task of SCT which includes the formulation of standards and guidelines. Since this sector development is in its early stages there is a wide field of possible activities; however they can only be achieved through a gradual process in line with available capacities and resources. Following activities relate to transportation and may be carried out by SCT:

Components:

- Formulation of guidelines and standards for tourism related transport Infrastructure facilities and services.
- Identifying and prioritizing of tourism sites in the Kingdom which shall be promoted through better access by transport means and through road signs giving better orientation to travelers.
- Publishing tourist road maps and travel guides

Responsibilities: **SCT** as the principle tourism development authority is the responsible agency and needs to cooperate closely with concerned stakeholders and concerned authorities. For promoting tourism sites through transport access and signage **SCT** needs to coordinate with **MOT, MOMRA, and Development Authorities** to include measures into infrastructure plans and projects.



5-4. Programers Area: Hajj Transportation

It is the highest priority of the Kingdom that the Hajj and Umrah performed by every single Muslim is a comfortable experience full of serenity, tranquility, security and safety, and that each pilgrim is provided with the psychological tranquility that enables him or her to perform their worship in a quiet and undisturbed privacy; and that the arrival, sojourn and return of pilgrims and Umrah performers shall be the easiest, simplest, most competent, most comfortable and shortest as well as least difficult procedures. This Programme Area therefore addresses the transportation needs of the pilgrims by strengthen the planning and logistics arrangements for the annual Hajj period and promoting best possible planning and implementation of transport infrastructure projects to facilitate urban and intercity movements of the pilgrims. The Ministry of Hajj has identified six (6) Strategic Tasks which will address the special priority of this Programme area its thrust contributes directly towards the **Strategic Goals “Hajj Transport”**.

Programme Actions

Action 4-1: Strengthen Planning and Logistics for Hajj Pilgrimage

Scope: The Ministry of Hajj is the dedicated authority to oversee related policies and Programmes, and to coordinate planning and implementation of projects and activities. The continuously increasing numbers of pilgrims are demanding complex logistical arrangements for organizing and operating appropriate transport services. Therefore the Ministry of Hajj needs to strengthen its planning and organizing capacities for coordinating logistics and transportation for the annual event. Capacity building measures include in-depth study and research of planning and logistics issues, and the introduction of IT applications and tools for managing information, and supporting the planning and communications tasks of the Ministry. Issues regarding transport organization and logistics include: better organizing the pilgrimage of internal pilgrims, expanding shuttle bus transport between the holy sites, and monitoring and controlling of pilgrim movements.

Components:

Strategic Task 1: Preparing a new system for Hajj and Umrah pilgrims transport using improved modern system to ensure good planning, operation, and monitoring to this sector and to eliminate all existing problems:

- Updating and improving all regulations and systems related to the transportation of pilgrims to meet their expectations.
- Developing new standards for services providers to commensurate with the different transportation modes including types, vehicles, lanes, etc. keeping the economical and quality issues in mind
- Setting up new regulations that allow users to choose the company, mode, and type of transport they would like to use
- Improving the administrative and operational systems for both the companies and supervising agencies working in this sector including a detailed explanation of the tasks and procedures
- Improving the operational plans and linking it with the quality standards in addition to training and improving the workers on this sector.

Responsibility: Ministry of Hajj shall coordinate with MOT, MOI, and related agencies.



Strategic Task 2: The completion of studies and operations relating to frequent trips transportation following the general plans approved by The Higher Commission for the development of holly sites in Makah and Medina:

- New research and studies regarding the requirements of transporting specific special pilgrims.
- Preparing the operational, training, and educational awareness programs for the workers in the Hajj and Umrah companies.

Responsibility: Ministry of Hajj, MOT, MOMRA, MOI.

Strategic Task 3: Using the New Technology to support pilgrim transportation

- Developing a system and procedures to track busses
- Using information and telecommunication technology to receive international pilgrim information from their countries. Also, transportation tickets could be sold to them in advance and linking their information with the transportation tickets they purchased.
- The expansion in using information technology and improving its use between operational and supervising agencies

Responsibility: Ministry of Hajj, MOT, MOI, KACST

Strategic Task 4: Setting up a common ground for working between all related agencies in the pilgrims transport providers. This common ground can be the base for continuous improvement and enhancement for this sector:

- Resettlement of jobs to cover all workers in the pilgrims transport sector.
- Developing a clear communication channels for transporting information and data between all concerned agencies and stakeholders including Ministry of Hajj and The Higher Commission of pilgrims transportation.

Responsibility: Ministry of Hajj, MOT, Higher Commission of Pilgrims Transportation and its branches, **Central Hajj Authority**, and **Hajj Organizing Committee**

Strategic Task 5: Applying quality methods to achieve the satisfaction of transportation users:

- Developing the quality methods application plans.
- Solving the problems causing the delay at the entrance points of international pilgrims such as ports and airports and their delay in getting to their accommodations
- Providing systems to settle all accounts between providers and users to guarantee the fairness for all parties



Responsibility: Ministry of Hajj, MOT, MOI, and the General Authority for Civil Aviation (GACA).

Action 4-2: Infrastructure Development for Hajj and Umrah Pilgrimage

Scope: The Holy Sites are embedded in a small urban area resulting in high congestion levels while pilgrims perform their religious rites. This requires the provision of huge transport capacities and special infrastructure to accommodate this demand. Particular focus in this regard shall be given to comprehensive planning for the Pedestrian Facilities at the Holy Sites that gives consideration to available and possible capacities, providing the best possible logistics solutions, information signage and systems, rest and support facilities (toilets, rest areas, food and beverage vending kiosks, etc), emergency response schemes, separating of pedestrian stream from the vehicular traffic, and identifies related construction and rehabilitation needs. Further attach priority to the development of integrated urban transport including mass transit systems at the holy cities that accommodate the needs of Hajj and Umrah travelers, and priority development of inter city transportation which include the Makkah – Madinah Railway and terminal facilities for intercity bus services at the holy cities.

Strategic Task 1: Improving the infrastructure needed for pilgrim transport services using high capacity transportation modes:

- Improving the road network from the borders of the country to Makah and Medina.
- Completion and rehabilitation of all services and utilities at the pilgrims points of entrance, including resting areas, and megats at roads and providing them with all services they might need.
- The expansion of using regional railways to link all cities in the Kingdom with Makah and Medina.
- Developing a comprehensive transportation system to serve pilgrims of Makah and the holly area where train transport is part of this system, and to take pedestrians in consideration.
- Establishing a local transportation network within Makah and Medina to cover the areas between pilgrim's residences and the holly mosques and holly areas such as Al Rahma Mountain, Nemra mosque.
- Interconnecting and the integration between all modes of transportation and the main areas such as Mosques, Al Rahma Mountain, etc.
- Developing a new navigation and traffic management system for pilgrims in the central area of the holly mosques to give full details on entrances, exits, and routes to avoid congestion areas.

Responsibility: Ministry of Hajj, MOT, MOI, MOMRA, Higher Commission of Pilgrim Transportation, GACA, and the Institute of the Custodian of the Two Holy Mosques for Hajj Research

Strategic Task 2: The completion of the remaining phases of the organizing plan of the frequent trips transportation approved by The Higher Commission for the development of holly sites in Makah and Medina:



- Constructing the passenger loading stations for pilgrims in the holly areas in addition to constructing the bus stops and modifying roads according to the frequent trip transportation
- Designing and planning an integrated pedestrian system within and in between the holly areas and linking it to the train stations.

Responsibility: The **Ministry of Hajj, MOT, MOI and MOMRA.**

5-5. Programe Area: Transport Safety

This Programe aims at enhancing traffic and transport safety in the Kingdom by implementing and strengthening institutional frameworks and capacities as well as targeted activities in the areas of enforcement, engineering, education and emergency response. The **Programe Area Transport Safety** is designed to guide the key stakeholders in establishing a suitable institutional framework for transport safety work, in developing and implementing Transport Safety Programes for the sub-sectors Land Transport, Maritime Transport and Aviation, in better coordinating activities and allocation of responsibilities as well as in enhancing standards for infrastructure and service provision. It also intends to address that human beings have shortcomings. As most accidents are caused by human error it focuses on providing transport services and infrastructures that compensate for users errors either by reducing conflicts between the users or by addressing the behavior of the road user itself. This Programe Area contributes to the Strategic Goal **Safety** as well as indirectly to the Strategic Goals **Efficiency** and **Socio-Economic Development**. Special emphasis is devoted to awareness raising both at the political and public level as major prerequisite for the success of this Programe.

Road Safety

Road Safety has, within this Programe Area, a prominent part to play as its adverse affects are very visible and a concern of the entire society. Related actions shall therefore frame the road safety strategy for the Kingdom on the basis of a set of Road Safety Principles to provide guidance to the work of participating agencies and stakeholders:

1. **Improve design of roads and signs:** The categorization of urban and inter-urban roads with clearly distinguishable features such as its own design speed and road design guidelines, shall contribute to influence road user behavior. Features shall include self-explaining, self-enforcing elements such as curves, roundabouts and clear parking spaces, and aim at designing “user friendly” roadsides by being obstacle free or having so-called “forgiving” roadside design.
2. **Improve driver behavior:** Education, training, appropriate driver licensing and enforcement are the basic tools to improve road user behavior. Intelligent transport systems can be applied in this stage in the Kingdom like cameras to monitor activities at traffic lights, speed cameras and trajectory speed control on motorways.
3. **Mitigate consequences of accidents:** Impacts of road accidents shall be reduced by technical measures (the wearing of seat belts, fitted airbags and deformation zones in cars, guardrails on the road, obstacle free or “forgiving” road sides) and by improving emergency response protocols: Traffic victims shall be brought safely and quickly to hospitals and shall be stabilized within the “golden hour” (within one hour of the accident occurring). Good access to accidents sites by emergency lanes, turning points on motorways, etc. as well as close cooperation between involved agencies is also needed.
4. **Enhance coordination between agencies:** To obtain a holistic road safety system with all different disciplines and agencies involved coordination and management plays a crucial role.



Institutional improvements with clearly assigned responsibilities and devolution of power to regional and local bodies, can contribute to this principle.

5. **Applied research results:** To assist decision-making with data and information, a research, knowledge and evaluation Programme shall be established. In order to improve design of local improvements, to set priorities and to evaluate measures appropriate collection and analysis of data will need to be improved. Further activities include the application of best practice examples and dedicated training for road safety professionals.
6. **Set ambitious targets:** As experience from Europe shows, ambitious targets will speed up improvements and enhance accountability of involved stakeholders. The Programme development process will need to define and adopt a target, such as a reduction of fatalities of 50% within the next 10 years. The Programme will define regional reduction quotas and mechanisms for monitoring and evaluation.
7. **Ensure appropriate funding:** A dedicated road safety funding Programme is needed to fund reconstruction of roads and intersections based on a “black spot” Programme as well as to cover awareness campaigns and educational efforts. It may be noted that, improving investments in road safety may have a financial rate of return of between 8-10%.
8. **Enhance private sector participation:** Road Safety is not only a matter for the government. The private sector is also interested in reducing the road toll as a cost factor; insurances have loss prevention Programmes for fleets. Companies lose well experienced employees, who are difficult to replace. The private sector has also the ability of influencing public behavior through their marketing skills. Therefore it is proposed to establish a Public Private Partnership Programme (PPP) on road safety.

Aviation Safety

Safety of the aviation sector is internationally well regulated and the Kingdom has an outstanding safety record. Adherence to international regulations and the monitoring of compliance with safety regulations by all operating carriers and airports in the Kingdom is an important task. While the concerned authority is divesting airport operations in the Kingdom, it has to assume a stronger role in monitoring safety compliance. This monitoring role needs also be addressed with the growing number of commercial airlines operating in the Kingdom.

Maritime Safety

Maritime safety standards of the Kingdom have developed according to international agreements and conventions including those of IMO and MARPOL etc. The implementation however concerns different authorities such as MOT, SPA, Border Guards, and Navy and compliance with these safety regulations requires the establishment of procedures, communication systems, special facilities and equipment.

Railway Safety

The railway safety has always been appropriately addressed in the Kingdom which is evidenced by the good safety records of SRO. Still there are risks which are addressed through reducing the number of level crossings and extending the fencing of the rail track to prevent accidents with animals. Given the railway network expansion with additional railway operators there is a strong need to establish national safety rules and guidelines for the railway infrastructure and for railway operations, and these shall follow international standards and practices. Establishing common standards and their implementation and monitoring.

Establishment of National Transport Safety Programmes

Improvement and adaptation of safety-related regulations and procedures in all transport sub-sectors is a main concern of all responsible Ministries and agencies and numerous actions are taken to



improve transport safety and comply with international safety standards such as for dangerous goods transport on. With commercialization and privatizations of transport markets, safety responsibilities which were previously embedded in the organizational structure of public entities are now to be transferred into regulatory systems. Moreover the increasing complexity of safety regulations compliance with safety standards requires oversight and coordination; therefore National Transport Safety Programmes shall be established for the sub sectors Land, Maritime, and Air Transportation, that consolidates all information on applicable safety policies, transport safety regulations, guidelines, implementation of safety standards, law enforcement, and response mechanism and facilities.

Programme Actions

Action 5-1: Strengthen Coordination for Road Safety by Establishing a Supreme Board for National Traffic

Scope: The Supreme Board for Traffic shall be made responsible for the development and adoption of a road safety Programme, coordinate and manage execution, report on progress based on performance indicators to the government, continuous review as well as for preparation of recommendations for further development needs. Members of the Supreme Board will be decision makers from all agencies related to road safety. Substantive committees shall be established to cover selected issues; the Supreme Board and the sub-committees shall be supported by a secretariat.

Components:

Organizing the Supreme Board for Traffic together with committees such as a Committee on the National Government Road Safety Programme, a Committee on Municipal Road Safety Programmes, a Committee on Research, Evaluation and Data and a Road Safety Association.

- Elaborate, adopt and implement a road safety Programme
- Report yearly to the Government about the progress on the basis of agreed performance indicators and other key parameters,
- Review on a 5 year term the Road safety Programme
- Report all factors that prevent the Supreme Board reaching its targets, like funding, capacity, lacking of efforts etc
- To closely link and coordinate with the Traffic Police

Responsibilities: The coordination structure shall be legally established and implemented by **MOI** in cooperation with **MOT**. The Supreme Board will work under the leadership of **MOI** in collaboration with concerned Ministries **MOT**, and **MOMRA**.

Action 5-2: Improving the national Traffic Safety Programme for Roads that includes Allocation of Responsibilities for Road Safety and Strengthening Road Safety Capacities

Scope / Components:

Road Safety Responsibility in the Kingdom is shared among the three line Ministries namely MOT, MOI, MOMRA. However it is also understood that the complexity of



traffic safety intertwines between road infrastructure and moving traffic, and a segregated management of these areas is not achieving the desired road safety levels. The Traffic Police have many duties to perform including: driver and vehicle licensing, vehicle inspection, data management, law making, and law enforcement, all of which creates conflicts by combining regulatory, administrative and enforcement functions. Therefore it is important to review these activities and consider how the range of road traffic tasks can be allocated to ensure a meaningful and coordinated implementation. This review shall particularly address necessary capacities for law enforcement activities which shall be the core task of the traffic police, and may result in the reallocation of administrative and policy making functions. The allocation of tasks shall reflect on following issues:

- (1) Alignment of procedures for license plate registration, vehicle inspection and third party insurance;
- (2) Establishment of a central database on road accidents, improvements and traffic volume;
- (3) Strengthen of traffic engineering and road safety capacities of traffic units within the administration;
- (4) Establishment of a Road Safety Policy Department to: function as the Secretariat of the Supreme Board for Traffic, to coordinate and monitor the implementation of the road safety strategy and the road safety Programme;

To address the lack of road safety knowledge on many levels of decision-making and implementation, a comprehensive capacity development Programme shall be established. It needs to encompass all levels of road safety work, from the operational level to decision makers at MOT. Capacity development refers to the introduction of academic curricula to develop and execute post graduate courses as well as to enhance the scope of vocational training of operational forces. Road safety shall be introduced as a chapter in the education of civil engineers and other studies, with strong linkage to experiences and knowledge from countries with a better road safety record. Post graduate training courses for academics on crucial posts for road safety management can also help to improve the knowledge of stakeholders. On all other levels of safety-oriented departments in MOMRA, MOT (plus regional offices) and on different levels in Traffic Police and Highway Patrol a basic knowledge of road safety shall be made compulsory. Especially the highway patrol agent and traffic policeman on the road shall have a more adequate knowledge of road safety after having finished their basic training.

On the institutional side it would be necessary to establish a Centre of Excellence in Road Safety for research, knowledge transfer and application possibly under the auspices of MOT or attached to a university of the Kingdom. A national research Programme shall tackle specific road safety issues in the Kingdom. The present activities of the National Road Safety Committee may be integrated in this Programme, as well as Programmes of other universities.

Responsibilities: The allocation of tasks and responsibilities between the different agencies shall be done by **MOI** and **MOT** through the newly established **Supreme Board for Traffic**. The **MOT** with the **Supreme Board for Traffic** shall be the lead agency for the implementation of the capacity building Programme and consider the establishment of the recommended institution. Concerned Ministries such as **MOI** and **Ministry of Higher Education** shall closely cooperate with the **National Commission**.



Action 5-3: Establishing a National Land Transport Safety Programme for Roads, Railways, and Pipelines

Scope: To translate the overall objective of enhancing road, railway and pipeline safety into specific activities and to assign responsibilities a Programme shall be elaborated. The safety Programme shall be continuously reviewed and updated. The overall responsibility for the development and implementation of the National Land Transport Safety Programme rests with MOT together with the Supreme Board for Traffic and the Railway Commission respectively. Programme development shall be closely coordinated through the concerned Secretariats and Committees with all relevant stakeholders and responsible agencies for the different activity areas. The Programme shall include the activity areas: road vehicles; road infrastructure; behavior, awareness, education and enforcement; data management; emergency response, and railway transport safety.

- **Road Vehicles:** To improve the roadworthiness scope shall be reviewed and amended:
 - (1) Enhance compliance with legal requirements for renewal periods,
 - (2) Implement and extend “spot checks” for roadside vehicle inspection to tackle the issue of the temporarily replacement of malfunctioning parts prior to the standard inspection,
 - (3) Link vehicle maintenance certification with verification of third party insurance,
 - (4) Offer on-site inspection for heavy vehicle equipment that is impractical to move to a vehicle testing station

Responsibility: MOI is reviewing and amending the current vehicle inspection system.

- **Road Infrastructure:** The standards for infrastructure provision on urban and inter-urban roads as well as application of enhanced traffic management technologies shall be reviewed and enhanced in accordance with best international experiences and norms.
 - Highways:
 - (1) Review and update road design and maintenance guidelines with special attention to “forgiving roadsides”;
 - (2) To reduce driver fatigue and to reduce the risk of them falling asleep, rest areas and restaurants shall be planned on regular intervals;
 - (3) Improve infrastructure design in the (so-called) linear villages that straddle interurban roads,
 - (4) Design facilities to prevent camels and other animals from crossing roads and causing crashes,
 - (5) Turning points or removable guardrails shall be provided.
 - Information systems on traffic conditions: Disseminate information on traffic conditions, congestion, accidents, weather conditions and road closures through media and different communication systems such as ITS. This information will help citizens and companies to schedule trips more responsibly. To build up this system MOT, Traffic Police and MOMRA need to cooperate.
 - Urban roads: Road design and maintenance guidelines shall be updated and improved by MOMRA with the help of Traffic Police. Special attention shall be



given to the design principles for residential areas. Self-enforcing roads with speed limits of 30 km/h should be considered. Design of pedestrian facilities like walkways, bridges, and pedestrian crossing with islands in the middle of the road shall help to reduce the high percentage of victims among pedestrians.

- UN Convention on Road Traffic (Vienna Convention, 1968 G.); Road signs and traffic rules of the Kingdom shall be brought into conformity with international agreed standards. Therefore all necessary actions with regard to the accession process need to be initiated. Existing traffic regulations of the Kingdom need then to be reviewed and brought in line with the provisions of the UN Convention.

Responsibilities: Design guidelines and manuals shall be reviewed and updated by **MOT** and **MOMRA** in collaboration with **MOI** and other stakeholders. **Red Crescent Authority** and related agencies shall include provisions for effective emergency response.

- **Behavior, awareness, education and enforcement for traffic safety:** To enhance road user behavior a comprehensive Programme for education and training of road users as well as enforcement shall be elaborated as road user behavior is a key factor for road safety in the Kingdom. It shall reflect regional and international experiences and allow for a close cooperation of all involved agencies.
 - Enhance driver education and specialized education for truck and bus drivers:
 - (1) Include road safety in the curricula of school pupils to include the involvement of parents;
 - (2) Develop and implement training and examination Programme for professional drivers of taxis, buses, trucks and heavy vehicles with theoretical and practical examinations and licenses – possibly linked to CPC;
 - (3) Devise the establishment of driving schools, with a combination of theoretical education and practice within a specially designated area;
 - (4) Set up safety culture Programme in freight and passenger transport by involving Chambers of Commerce or Insurers;
 - (5) Tackle truck overloading by reinforcing the active Programme of axle and vehicle weighing and imposing more substantial fines.
 - Promote traffic safety and safe driving, and increase public awareness: A road Safety Association shall initiate and coordinate a road safety campaign in order to influence behavior and raising awareness on the scale of the problem. Other actors such as Saudi Red Crescent, Ministry of Health, Private Sector, Insurance Companies, Police and many others shall be involved and communication time on radio and TV could be allocated for this activity. Dedicated campaigns on speed, seat belt use, fatigue and distraction, behavior of reckless drivers, pedestrians, etc shall be planned in conjunction with enforcement targeted on each specific item.
 - Review of traffic fines system: In order to improve enforcement of traffic fines, both the approach as well as the catalogue of fines and penalties shall be reviewed continuously.
 - Review enforcement strategies and methods of the traffic law and rules: Develop an enforcement strategy based on the main causes of accidents that include: speeding, red light running, vehicle overloading, keeping to the correct side of the road, changing lanes rapidly or running on the emergency



lane to overtake. These strategic periodic enforcement actions shall go hand in hand with campaigns by the Traffic Safety Association. On identified “black spots” frequent driver mistakes could be monitored to establish the root causes of accidents that may include: not giving correct priority to other traffic, overtaking when the way ahead is not clearly visible, driving past a red light, and dangerous parking.

Responsibilities: MOI and Traffic Police shall lead the development of a control mechanism for driver licensing and examination as well as in cooperation with **MOT** and the **Traffic Police** improve enforcement schemes. The safety culture Programme shall be developed by the **MOI** in close collaboration with the **concerned agencies**.

- **Data management:** To improve the basis for informed decision-making, the quantity and quality of data and knowledge on road safety issues shall be enhanced, as data is needed for analysis into information that is the basis for further research on crash causes and countermeasures.
- Introduce an improved standard system for recording of accidents at national level and establish comprehensive road accident statistics for Saudi Arabia through analysis and consolidation of relevant data from all participating agencies: Review the present accident database for missing or incomplete information, e.g. on accident causes, accident reports, missing locations etc. and compare the collection and dissemination of information on international databases like OECD-IRTAD⁵. Devise a set of required statistical data and assign responsibilities with regard to data collection and analysis. The Department of Statistics and Information shall incorporate accident statistics, road risk indicators, hospitalization records and costs involved. Regional summaries are needed to inform responsible authorities and for benchmarking road safety performance. Review and improve (e.g. through training) the quality of accident recording.
- Participate in the OECD International Road Transport and Accident Database (IRTAD): Through participation in the OECD-IRTAD database, the quality of data processing analysis as well as the comparability with international standards shall be strengthened. Twinning with one of the European Crash databases within OECD-IRTAD might help to reorganize the data handling and introduce international standards for crash reporting.

Responsibilities: MOI in close cooperation with the **MOT**, and **MOEP** (Central Department of Statistics and Information) shall identify data needs and set up appropriate mechanisms for data collection, handling and dissemination.

- **Emergency response:** To reduce the consequences of accidents – in particular mortality levels – a proper incident management system shall be established with focus on response times and accident site management.

⁵ <http://www.irtad.net>, IRTAD is an international database that gathers data on traffic and road accidents from 28 out of the 30 OECD Member countries. IRTAD operates within the framework of the Joint OECD/ECMT Transport Research Centre. Most OECD countries are represented by National Coordinating Centers. IRTAD participation is also open to non-OECD countries.



- Establish national protocols for incident management and accident response: Improve response times to reduce the mortality rate in severe crashes by adequately designing road layout, emergency lanes on motorways and education of road users to leave space for rescue vehicles. In remote regions the use of helicopters for trauma victims shall be evaluated. A proper incident management protocol at the place of the accident shall define the tasks of every organization:
 - Police: secure accident sites and prevent any accidents,
 - Civil defense: rescue victims, countermeasure for dangerous goods spillage, extinguish fires,
 - Red crescent: victim care and transport,
 - Road authority: traffic signs, road cleaning
 - First at accident site: first aid
 - Tow away team: quick remove vehicles from the crash site to reduce secondary accidents
- One of the agencies shall be the coordinating commander at place and take the initiative for evaluation of the rescue operation and transport of deceased bodies. Incident management protocols and training of the teams in regional settings is essential to have effective operations in practice. Trauma care facilities shall be adjusted by the MOH adequate to victims needs per region.

Responsibilities: MOI, shall assume the lead in developing the emergency response Programme and procedures in closely coordination with **MOT, Traffic Police, Highway Patrol, Civil Defense, MOH** and the **Saudi Red Crescent Authority, Amana (agency for transport of deceased bodies)**

- **Transport Safety for Railway:** Railway has changed to commercial operation with the help of SRO and other potential operators. SRO is currently taking care of the in future responsible railway authority under MOT. Therefore the Railway Authority needs to establish a Railway Safety Programme as a sub sector Programme of the National Land Transport Safety Programme. The Railway Safety Programme shall include following elements:
 - Risk evaluation and control;
 - Safety plans, common safety targets and common safety indicators;
 - Management of standards (standards framework, legislation, Technical Specifications for Interoperability - TSI, Notified National Technical Rules);
 - Placing into service of new or altered vehicles/ infrastructure; e) Training and competence of personnel;
 - Exchange of safety information;
 - Accident reporting, investigation, analysis and action;
 - Preparing Emergency Plans;
 - Cooperation including: national schemes, research and development and standards;
 - Safe design, maintenance and operation of the infrastructure;
 - Safe design maintenance and operation of rolling stock.



Responsibilities: SRO under the supervision of MOT is in charge of these tasks until the Railway Authority is functioning.

- **Dangerous Goods Transport:** For dangerous goods transportation on roads a set of new rules have been elaborated and are being introduced. The new rules are aligned with international and UN standards, and need to be comprehensively implemented with all concerned parties such as drivers, operators, Traffic Police and Highway Patrol, Civil Defense, and Saudi Red Crescent Authority. While the rules for dangerous goods transport on roads represent an important part of the dangerous goods transport safety Programme other areas such as for dangerous goods transport by rail (Railway Authority), air (GACA) and dangerous goods handling at ports and terminals (SPA) need to be included in the safety Programmes.

Responsibilities: MOT in coordination the concerned sector agencies.

- **Transport by Pipelines:** For dangerous goods transported through pipelines strict regulations shall apply according to international standards and regulations. Beside the safety rules for construction and operations, planning procedures for pipeline infrastructure particular and safety measures in relation to urban development and other transport infrastructures shall be addressed by the National Land Transport Safety Programme.

Responsibilities: MOT in coordination with Ministry for Petroleum and Mineral Resources, Ministry for Water and Electricity and Saudi ARAMCO.

Action 5-4: Establishing a National Maritime Transport Safety Programme

Scope: Maritime transport involves different types of risk. As a consequence of a maritime accident, loss of life or injury may occur to crew and passengers, damage to the property of ship-owners and the cargo, as well as potential risk to life, health and property of third parties and the natural environment. Therefore efforts have been made to reduce the risk through better technology, rules and supervision as well as mechanisms of compensation. A critical part is the development and implementation of common standards which ensure high safety levels in the performance of equipment which is carried on board ships. Against this background, it is acknowledged that the maritime sector is a global entity and that the implementation of existing international standards varies greatly throughout the world. This is consequently a fundamental problem for any country, which would like to ensure high safety standards for ships operating in, or near to, their coastal waters. The Kingdom in this context is adhering to international agreements and standards which are set at organizations such as IMO. The concerned authorities for maritime safety in the Kingdom are MOT, SPA, Boarder Guards and PME and the overseeing Ministry MOT cooperate with the implementing agencies to establish the Maritime Safety Programme as a sub sector Programme to the National Transport Safety Programme. The Maritime Safety Programme shall include applicable legislation and the enforcement and implementation mechanism for:

- Liability and Compensation;
- Marine Equipment;
- Port State Control;



- Port Reception Facilities;
- Dangerous goods handling
- Ship Safety Standards,
- Training of Seafarers.

Responsibilities: The National Maritime Transport Safety Programme is to be developed by **MOT** in cooperation with all concerned Ministries and agencies.

Action 5-5: Establishing a National Air Transport Safety Programme

Scope: Aviation safety of the Kingdom is characterized by an outstanding safety record, not only for the airlines but also for operating airports. Further the safety procedures and regulations are internationally set for commercial aviation and the Kingdoms authority GACA is closely cooperating with ICAO in this field. While airport management is transformed into commercial management and the sky is being opened to international airlines, the implementation and enforcement of safety regulations for the aviation sector needs to be addressed. The transport safety sector Programme for aviation safety is to be formulated, developed and maintained by GACA and shall document in line with ICAO recommendations:

- Apply the Kingdom's Programme for Civil Aviation safety approved by ICAO, and obliging the service providers to implement their respective safety management Programmes, including the determination, fixing and assessment of risks, and establishing a mechanism to reduce them.
- Develop safety awareness Programmes for operators and license holders through the publication of information on safety, and encouraging the submission of reports related to civil aviation (mandatory reports, voluntary reports, and obstacle reports).
- Establish a central data base to include all incidents related to civil aviation, and to issue periodical reports showing effects on safety and recommendations for improving safety.
- Implement regular inspection Programmes for service providers (airports, air-navigation, air operators, and airplane maintenance centers).
- Continue the updating and revising of safety-related rules, regulations and procedures to comply with international regulations and requirements
- Provide specialist staff: there is a need to prepare job descriptions for the technicians involved in air transport safety in order to attract this category to join GACA, since presently there is no job description agreeable with the responsibilities of such category and matching the incentives and the advantages offered by the private sector and Saudi Airlines.
- Investigation Office for Airplane Incidents: Expand the activity of this office to include all modes of transport in the Kingdom as it is the case in many countries, and make it an independent agency not operating under the authority of ministries or agencies supervising such services.

Responsibilities: The National Air Transport Safety Programme is to be developed by **GACA** in cooperation with **MOT**.



5-6. Programme Area: Environmental Protection

This Programme area aims at minimizing negative environmental impacts and health risks brought upon by the transport sector. It addresses the formulation of policies, regulations and standards overseen by the Presidency for Meteorology and Environment (PME) and the compliance to regulations by concerned implementing agencies. Priority areas are the setting of appropriate emissions levels across the transport sector including establishing appropriate noise emission levels, and a meaningful implementation of environmental impact assessments (EIA) for major infrastructure projects. The **Programme Area – Environmental Protection** with its identified actions is designed to improve and enforce standards as well as strengthening institutional and professional capacities. It contributes directly to the Strategic Goal of **Environment** as well as indirectly to the Strategic Goals of **Efficiency**, **Socio-Economic Development** and **Safety**.

PME is mandated as the central environmental protection authority that develops environmental policies and formulates regulations and standards for the Kingdom. It is establishing a National Sustainable Development Strategy which needs to give particular consideration to emissions regulations for the entire transport sector. Another area of environmental concern is the Environmental Impact Assessment (EIA) for major infrastructure projects, for which compulsory regulations exist, but implementation compliance by concerned agencies is falling behind. PME shall assume a more active role in entering into a dialogue with all implementing agencies and provide guidance and assistance in establishing environmental units and work procedures. Such capacity building measures may also generate a better understanding for the values and benefits of EIAs.

Programme Actions

Action 6-1: Formulation of Environmental Protection Strategy and Emissions Regulations including Noise Emissions Levels for the Transport Sector

Scope: A core task of PME is to prepare, issue, review, develop and interpret environmental protection standards including permissible vehicle emissions levels. The General Environmental Regulations of the Kingdom also direct that environmental considerations must be incorporated in the process of planning for development projects, Programmes and developmental plans, for various sectors and the general development plan. In this context out dated regulations for road vehicle emissions and fuel qualities need to be reviewed and adjusted, and complemented by regulations concerning emissions of transport areas including noise emission such as for railway, aviation and marine transport. While developing and issuing these emissions standards within the framework of the Sustainable Development Strategy consideration must be given to all related aspects such as: international available technologies and practices, and international industrial / manufacturing standards. These relate to the automotive industry, fuel qualities, health risks, international commitments of the Kingdom with respect to CO₂ emissions, and how these standards can be practically and effectively implemented, enforced, measured and monitored.

Components:

- Review and adjust emissions and fuel quality standards and regulations for road vehicles
- Update the specifications for vehicle fuel in accordance with internationally accepted standards



- Prepare vehicle emissions standards and regulations for specialized transportation such as for buses used in inner cities and for transportation of pilgrims during the Hajj season.
- Identify permissible emissions levels and prepare regulations for the railway, maritime and aviation sector
- Evaluate environmental risks concerning the disposal of old vehicles, road construction materials, service facilities for vehicles such as fuel stations and workshops, and issue regulations as appropriate
- Reviewing regulations and standards for acceptable noise emission levels.

Responsibility: **PME** is the responsible agency to develop related strategies and standards, and needs to receive cooperation from all concerned agencies such as **MOT, MOI, MODA, GACA, Railway Authority, SPA, Ministry of Hajj, SASO, ARAMCO, MOMRA, MOCI, and MOH.**

Action 6-2: Capacity Building for Effective Implementation of Environmental Impact Assessments

Scope: To effectively implement existing compulsory regulations for EIA for transport infrastructure projects a set of capacity building measures shall assist the implementing agencies to comply with the compulsory regulations and help them in preparing and administering EIAs which include the following:

Components:

- Prepare practical guidelines to measure environmental impact of transport infrastructure projects including for roads, railways, ports and airports.
- Promote the EIA Programme to transportation and infrastructure projects.
- Lend assistance to the project implementing agencies for establishing the environmental units. This includes identifying organizational responsibilities, work procedures with respect to the implementing of EIAs, required internal and external (with PME) communication requirements, and conducting workshops and seminars on practical and meaningful EIA implementation.
- Establish a customer support services at PME to better respond to questions and deliver assistance.

Responsibility: **PME** is the lead agency for developing **EIA** guidelines and shall collaborate during its preparation with all concerned Ministries and agencies such as **MOT, SPA, Railway Authority, MOMRA, MODA, and GACA.** These agencies will also liaise with **PME** when reviewing organizational matters with regard to their environmental units and support related training measures.



6. Implementation of the National Transportation Strategy

The purpose of NTS is to provide an overall comprehensive framework for achieving the national development goals by efficiently managing the transport sector in times of growing intermodal and international competition and increased globalization and complexity of the transport market. Hence, NTS has to be a mechanism that guides the allocation of the technical and administrative resources and utilizes emerging new technologies to better meet challenges and take advantage of opportunities in the transportation sector and to contribute to the national development goals and objectives. The National Transportation Strategy is formulated by:

- **Vision and Strategic Goals,**
- **Policies,**
- **Action Programme**

Whereas the Vision, the six Strategic Goals, and the Policies provide an overall description of targets as well as specific guidance for directions and decisions for the transport sector, the Action Programme comprises important tangible activities of all related agencies for developing transportation of the Kingdom in line with the given set of goals and policies.

Since the structure of NTS goes well beyond the definition of the vision and goals by specifying a substantive and comprehensive Action Programme for many different agencies of the sector, its implementation mechanism needs to be embedded within existing administrative and legislative frameworks of Saudi Arabia to ensure allocation of resources and a coordinated Programme implementation. Moreover, NTS shall be a dynamic instrument to provide guidance for operation and development of the transport sector. Hence, NTS implementation mechanisms need also be established as an ongoing process which interacts harmoniously with existing planning cycles and administrative procedures.

A key policy of NTS demands full ownership of all participating agencies while they implement their parts of the Action Programme. This distribution of responsibility allows for the many tasks to be realized simultaneously, however, a central monitoring and Programme coordination is considered to be vital to maintain cohesion of the Programme structure and to ensure that results and achievements have a momentum and direction towards the vision and the strategic goals.

Successful implementation of the Programme activities are a concern of the Kingdom's society at large as well as many different stakeholders, therefore a regular communication of results and implementation progress is essential to report achievements. Such comprehensive information will enable interested parties to take advantage of new opportunities arising from the Programme across the transport sector. In view of MOT's policy leadership and planning responsibilities for all land and maritime transport modes, such monitoring and coordinating tasks for the NTS Programme fall naturally into the sphere of MOT.

Further, it is important to keep the Policies and Programmes up to date and necessary adjustments made according to ongoing developments shall be incorporated. This calls for a periodical review of the Action Programme.

Follow-up and Reporting

Achievements of the Action Programme can only be made visible if its implementation is appropriately monitored and reported. Although every agency prepares annual reports on its operational activities and achievements as part of regular monitoring processes of the government, it may be difficult to measure implementation and achievements of NTS from that basis. Implementation progress and



achievements of the Action Programme may only become visible if it is appropriately reported by a specific NTS Status Report comprising NTS Actions of all concerned agencies. Given the strategic nature of the Programme activities and the time required for implementation by respective agencies, an extended report cycle of not less than 2 years (bi-annual) may be sufficient for the government to give appropriate consideration to the strategic direction of the transportation sector. Such reporting shall include the measurement of progress through indicators.

Planning and Review Cycles

Whereas MOT is the lead agency for coordinating the substantive Action Programme of NTS, the Ministry of Economy and Planning (MOEP) is responsible for the formulation of the National Development Plans. The present 8th Plan covers the 5 year period from 2005 G to 2009 G (1425 H to 1430 H) and the 9th plan is under preparation for the period 2010 G to 2014 G (1431 H to 1435 H). These development plans are setting objectives, and allocate tasks and duties for all government agencies of the Kingdom while addressing specific priorities. Thus the development plan is a vehicle that can translate agreed Policies and Programmes into actions across the entire transport sector in a coordinated manner. This link between NTS and the National Development Plans ensures that the Action Programme is being addressed by all concerned agencies in line with the National Development Goals and given priorities, and at the same time becomes subject to appropriate resource allocation mechanism.

Although the Action Programme has a long term horizon of 20 years, its short term actions are more specifically defined, whereas long term activities are of more general or continuous nature and need to be revisited from time to time to keep the Programme up to date. A periodical review of the Action Programme allows incorporation of learnt lessons and new developments. Given the 5 year cycle of the National Development Plans it may be appropriate to adopt the same cycle for NTS reviews, thus keeping the Action Programme up to date and contributing at the same time to the formulation of the National Development Plans. While the substantive leadership for NTS remains a principle task of MOT, the periodical review may become a joint exercise of MOT and MOEP.

NTS Action Programme – Summary Table

NTS Action Programme: 1. Infrastructure Development

The Programme Area Infrastructure Development aims at improving efficiencies of the national transport infrastructure, which shall be achieved through better integration of planning processes in support of multimodal transport and through promoting commercialization, private sector participation, and competition for infrastructure facilities.

Action 1-1: Comprehensive Integrated Transport Infrastructure Planning for Saudi Arabia

To establish a medium and long term National Transport Infrastructure Plan to complement existing instruments and procedures for the planning of roads, railways, ports and airports and to achieve better infrastructure connectivity for multi modal transportation.

- Identify the scope of work and planning methods for elaboration of the National Transport Infrastructure Plan and formulate terms of reference
- Study and evaluate how to optimize maintenance budget allocations for efficient road management
- Preparation and adoption of the National Transport Infrastructure Plan

MOT, MOEP, GACA

Action 1-2: Formulation of Guidelines for Identifying Priorities for Transport Infrastructure Projects

Formulation of guidelines for transport infrastructure projects in the Kingdom which shall provide common standards and mechanism for evaluation of priorities and feasibilities of projects.

- Elaboration of Guidelines on the basis of best international practices in cooperation with concerned agencies
- Capacity building measures (seminars and workshops) to promote the use and application of the Guidelines

MOT, MOEP, MOF

Action 1-3: Development of Intermodal Terminals and Logistics Centers

Feasibility studies for intermodal terminals and logistics centers shall identify and promote investment opportunities in support of developing economic and industrial centers and utilizing the new rail transport opportunities along the developing network. The focus of these studies shall include the development of dry ports for inland container handling in support of national and international multi modal transport, or promoting international transport service such as sea – air by utilizing existing port and airport terminals.

- Identify important locations for Multi Modal terminals, logistic centres, and dry ports and undertake feasibility studies
- Support private sector initiatives to for establishing and operating such centres and services

Municipalities,
Development
Authorities (cities /
regions)

MOT, Railway
Operator, Port
Operator,

GACA, Airport
Operator



NTS Action Programme: 1. Infrastructure Development

<p>Action 1-4: Harmonized Guidelines for Highway and Road Design</p> <p>To adopt the UN Convention on Road Signs and Signals, Vienna 1968 (G) and other conventions and agreements, and adjust national rules according to international standards. International uniformity of road signs and signal shall facilitate international road traffic and help to improve road safety in the Kingdom</p> <ul style="list-style-type: none"> • Accession to the UN Convention on Road Signs and Signals, Vienna 1968 (G); and any other related conventions and agreements. • MOT and MOMRA update and harmonize related road design standards and guidelines including the incorporation of international uniform road signs and signals; • Introduce updated road signs and signals according to the international conventions to the roads in the Kingdom and promote their value to traffic users; • Participate in related UN Working Parties to update and further develop the regulations of the Vienna Convention on Road Signs and Signals 	<p>MOT, MOMRA</p>
<p>Action 1-5: Commercial Management of Transport Services</p> <p>Port and airport terminals shall be transferred into commercial spheres which combine operational and investment risks and profits within a corporate framework. This commercialization shall achieve higher efficiencies and competitive service levels of transport services</p> <ul style="list-style-type: none"> • Commercialization of Port Terminals <ul style="list-style-type: none"> - Transfer of port terminals into corporate frameworks to combine investment risks and risks and profits of port handling into a commercial sphere. SPA to remaining as the landlord of the port infrastructure - Deregulation of port tariffs setting and application - Review and amend by-laws for ports and terminal operations • Commercialization of Airports: explore options to find the best solutions for operating the airports within a corporate framework and when possible, with private sector participation. Individual commercial solutions need to be found which adapt best to local conditions. 	<p>MOT, SPA GACA</p>
<p>Action 1-6: Comprehensive Transport Statistics System</p> <p>Establishment of a Comprehensive Transport Data System for the Kingdom</p> <ul style="list-style-type: none"> • Review of international experience and best practices; • Prepare an inventory of existing data and statistics, identify user groups and data requirements • Establish data definitions, quality standards, and the scheme of the national transport statistics • Data sourcing, production, storage, accessibility, capacity development 	<p>MOT, MOEP, GACA</p>



NTS Action Programme: : 2. Freight Transportation, Trade Facilitation

The Programme Area Freight Transportation, Trade Facilitation aims at enhancing transport operations in the Kingdom to facilitate international trade, which shall be achieved through promoting multimodal transport, reducing border crossing impediments, strengthening governance and professional capacities, as well as ensuring competition and market access.

Action 2-1: Enhancing Professional Capacities and Competences of National Freight Transport Operators

- Establish national professional associations for road hauliers and for freight forwarders under the management of the National Transport Committee and the Council of Chambers of Commerce and in liaison with IRU and FIATA respectively, to achieve their accreditation for the training provided.
- Develop a licensing system for freight forwarding companies that ensures financial and operational capabilities and professional competences.
- Establish and enforce a clear Programme for freight forwarding operations.
- Introduce internationally approved and accredited training Programmes for specialist courses to enable operators to be properly trained in all aspects of domestic as well as international road transport. This to include ADR training for hazardous transport and the Certificate of Professional Competence (CPC).
- Revise regulations for the road transport licensing system to better ensure financial and operational capabilities and to include requirements for professional competences.
- Review and revise the licensing system for the transport of oversized cargo to better meet the specialist needs of contractors and users.

MOT

MOCI

National Transport Committee

Council of Chambers of Commerce

Action 2-2: Enhancing the Legal Regime for International Transport and Trade Facilitation

- Adopting International Standards for Transport Operation and Trade Facilitation: Different authorities of the Kingdom are concerned with the accession to a number of agreements such as AETR, CMR, ADR, TIR Carnets, and TSI
- Conclude bilateral agreements on Road Transport to facilitate and promote road transportation between Saudi Arabia and other countries
- Revising the Maritime Law which needs to be coordinated with GCC countries and shall encompass: related maritime conventions, best international practice regarding maritime safety, security and environmental protection, consider latest technological advancements in maritime transport, allocate mandates and responsibilities, and regulations and procedures for the national shipping register that ensure acceptance to lenders and banks.

MOT, SPA, Railway Authority

Saudi Customs

GACA

Action 2-3: Customs Clearance Capacities and Simplified Customs Procedures at Border Points

Improve further port customs clearance procedures and explore all options for streamlining and simplifying border crossing procedures and facilities at land border crossing points.

- Accession to the Kyoto Customs Convention (revised 1999)
- Explore options for a better risk assessment.

MOF, Saudi Customs



NTS Action Programme: : 2. Freight Transportation, Trade Facilitation

- Coordinate and adjust working hours in collaboration with the neighboring countries to better process and clear cross border traffic
- Upgrade customs clearance facilities and capacities at land border points.
- Establish electronic customs clearance systems and procedures which are compatible with international standards and systems such as ASYCUDA/ WCO accepted standards to reduce manual procedures and increase information levels and capacities for risk analysis

Action 2-4: Information Communications Technology for Efficient Transport Management

Promote the introduce e-government application to enhance the service delivery of public services

- Advanced e-Government Licensing System for Road Transport: introduce advanced ICT applications for managing and monitoring road transport licenses with a central database shall support the work of MOT and its district offices.
- Information Communications Technology and Electronic Data Interchange for efficient Cargo Handling at Ports: expand the SAUDI EDI system to export handling and customs clearance procedures and establish interfaces with information systems of the terminal operators at all ports and dry ports.

MOT, SPA,
MOCI
Saudi Customs

Action 2-5: Multi Modal Transport Development

Promote Multi Modal Transportation through a coordinated leadership to oversee its development in the Kingdom, establish standards and regulations identify transport opportunities, and facilitate the dialogue among stakeholders and authorities.

- Simplify the documentation for Multimodal Transport and consider the FIATA multimodal through bill of lading as a single transport document for door to door container transport.
- Improve container handling at Riyadh Dry Port and at Dammam Port and rail yard, and introduce commercial oriented container train operations.
- Improve and expand container train operations including train schedules.
- Evaluate transit transport from Dammam port to Bahrain and establish viable customs procedures for bonded truck transport of containerized cargo on certain routes;
- Establish Sea – Air transshipment procedures for Jeddah Port Terminals / Airport to attract sea-air cargo to Jeddah and expand logistics activities at Jeddah

MOT, GACA



NTS Action Programme: 3. Passenger Transport

The Programme Area Passenger Transport aims at enhancing and further developing passenger transportation comprising urban transport systems and services, Kingdom wide passenger mobility by air, bus and railway, and considers transport aspects for tourism in the Kingdom. This shall be achieved through developing and operating integrated urban transport at city and regional levels, promoting competition of commercial services for all areas of passenger transport, liberalization of the aviation sector, and introducing rail passenger service along the expanding rail network.

Action 3-1: Establish Transport Agency branch offices in all regions

Consolidate responsibilities for urban transport planning; regulation and management into a lead agency in each city and at the same time provide alignment of the respective role of Ministries, Authorities and their branch offices and city-level agencies. The tasks of the city transport agencies shall include:

- Develop integrated transport strategies
- Coordinate transport and land use plans
- Set standards of service, environmental impacts and safety
- Provide investment funds for new systems and subsidies
- Contract commercial operators, by competitive bids on quality or lowest subsidy
- Monitor services and impose sanctions where warranted.

MOT

MOMRA

Action 3-2: Establish Regulatory Framework for Urban Transport

Establish a regulatory framework for the Kingdom that is based on a sound legal basis in respect to the rights and obligations of the transport agency and the transport operators, and to the procedures for the award and regulation of operating rights and entitlement to subsidy. It shall provide the means by which the private sector is contracted to provide services according to the plans and will give operators confidence to commit the investment required to establish high quality system. The regulatory framework shall include provision for:

- Tender eligibility, criteria and procedures
- Contract term and renewals
- Service obligations and performance standards
- Tariff-setting mechanism
- Taxation and subsidies
- Establishing operation goals and clarify responsibilities of service providers

MOT

MOMRA

Action 3-3: Establish Integrated Urban Transportation Master Plans

The Transport Agencies of the cities shall undertake integrated urban transportation master planning that provide a vision for multi-modal, smart and modern transport system by duly reflecting development needs, economic, social and ecological criteria, by identifying implementation schemes, timelines and enforcement needs as well as identifying responsibilities and funding needs.

MOT

MOMRA



NTS Action Programme: 3. Passenger Transport

<p>Action 3-4: Develop Guidelines to ensure Mobility for those with Special Transport Needs</p> <p>Develop dedicated strategies to enhance access for disabled people and improve public school transportation.</p> <ul style="list-style-type: none"> Analyze access for the disabled for (1) Adaptation of all public transport vehicles with features that enhance accessibility, and (2) Provision of dedicated demand-responsive services using highly accessible vehicles for the disabled in terms of costs, implementation timeline and responsibilities. Review demand patterns for school transportation, and develop appropriate Programmes for improved school transportation that can be integrated in wider concepts of integrated urban transport and can further cater for the needs of the disabled 	<p>MOT</p>
<p>Action 3-5: Improving School Transportation</p> <p>Improve strategies to provide better transportation of students as part of a multi modal transport system, and ensuring its effectiveness.</p> <ul style="list-style-type: none"> Review best practices for school transport to improve special Programmes making school transport better. Integrate school transport in urban transport systems. This service shall provide higher standards of comfort and short journeys, quality, safety, security, necessary regulations and support for using the service. Higher grade students may use the public transport system. Improve rules regulations for school transport and establish necessary action Programmes. Develop dedicated strategies to enhance access for disabled people and improve public school transportation. 	<p>MOT, MOMRA, MOH, Ministry of Education</p>
<p>Action 3-6: Competitive Inter-Urban Bus Transport Services in the Kingdom</p> <p>Further development of the inter-city bus sector by opening the inter-city bus market to competition:</p> <ul style="list-style-type: none"> Analysis of the potential demand and the commercial viability of the inter-city bus sector for consideration of structural and regulatory options Establish a regulatory framework for inter city bus services that include market entry conditions, regulatory powers vested in government, and conditions for safety aspects of vehicles and drivers. Facilitate market entry and ensure compliance to standards of conditions, and regulate sensitively market developments and demands. Facilitate the interfacing of inter-city buss services with their urban transport infrastructure and other modes and terminals such as railway stations and airports, and provide terminals and stopping places in accessible, central locations. 	<p>MOT Municipalities</p>
<p>Action 3-7: Intercity Rail Services for Passengers in the Kingdom</p> <p>With the expansion of the rail network additional opportunities for rail services between urban centers shall be explored for the development of attractive intercity services.</p> <ul style="list-style-type: none"> Evaluate the feasibility of intercity connections along the developing rail network services shall be supported by the overseeing authorities Explore options for rail transport concessions for commercial passenger transport services in the Kingdom and establish a regulatory framework that ensures safety and service standards 	<p>MOT Railway Commission</p>



NTS Action Programme: 3. Passenger Transport

<p>Action 3-8: Strengthening Regulatory Functions for Aviation to Promote Competitive Air Transport Services</p> <ul style="list-style-type: none"> • Establish equal market conditions for fair competition for all operating airlines, and monitor service qualities and establish common service standards and guidelines. • Reduce direct and indirect subsidies for domestic air services and liberalize the tariff structure, and make it subject to market forces and competition. • Develop competitive air services on PSO routes and explore individual solutions for PSO routes which may include adjusted routings and frequencies, lifting tariff restrictions, deployment of smaller aircrafts, or granting subsidies to concerned regions and cities enabling them to support their air services. • Establish and maintain a good and fair commercial environment to enhance competition and facilitate international transit services at air ports 	<p>GACA</p>
<p>Action 3-9: Guidelines and Standards for Tourism Transport Service</p> <ul style="list-style-type: none"> • Formulation of guidelines and standards for tourism related transport Infrastructure facilities and services. • Identifying and prioritizing of tourism sites in the Kingdom which shall be promoted through better access by transport means and through road signs giving better orientation to travelers. • Publishing tourist road maps and travel guides 	<p>SCT</p>



NTS Programme Area: 4. Hajj Transportation

The Programme Area Hajj Transportation addresses the transportation needs of the pilgrims by strengthen the planning and logistics arrangements for the annual Hajj period and promoting best possible planning and implementation of transport infrastructure projects to facilitate urban and intercity movements of the pilgrims.

Action 4-1: Strengthen Planning and Logistics for Hajj Pilgrimage

Strategic Task 1: Preparing a new system for Hajj and Umrah pilgrims transport using improved modern system to ensure good planning, operation, and monitoring to this sector and to eliminate all existing problems:

- Updating and improving all regulations and systems related to the transportation of pilgrims to meet their expectations.
- Developing new standards for services
- Setting up new regulations that allow users to choose the company, mode, and type of transport they would like to use
- Improving the administrative and operational systems for both the companies and supervising agencies
- Improving the operational plans and linking it with the quality standards in addition to training and improving the workers on this sector

MOHajj , MOT,
MOI,

Strategic Task 2: The completion of the remaining phases of the organizing plan of the frequent trips transportation approved by The Higher Commission for the development of holly sites in Makah and Medina:

- New research and studies regarding the requirements of transporting specific special pilgrims.
- Preparing the operational, training, and educational awareness programs for the workers in the Hajj and Umrah companies.

MOHajj, MOT,
MOMRA, MOI

Strategic Task 3: Using the New Technology to support pilgrim transportation

- Developing a system and procedures to track busses
- Using information and telecommunication technology to receive international pilgrim information from their countries.
- The expansion in using information technology and improving its use between operational and supervising agencies

MOHajj, MOT,
MOI, KACST

Strategic Task 4: Setting up a common ground for working between all related agencies in the pilgrims transport providers. This common ground can be the base for continuous improvement and enhancement for this sector:

- Resettlement of jobs to cover all workers in the pilgrims transport sector.
- Developing a clear communication channels for transporting information and data between all concerned agencies.

MOHajj , MOT,
Higher
Commission for
the monitoring of
pilgrims transport

Strategic Task 5: Applying quality methods to achieve the satisfaction of transportation users:

- Developing the quality methods application plans.
- Solving the problems causing the delay at the entrance points of international pilgrims such as ports and airports and their delay in getting to their accommodations

MOHajj, MOT,
MOI, GACA



NTS Programme Area: 4. Hajj Transportation

- Providing systems to settle all accounts between providers and users to guarantee the fairness for all parties

Action 4-2: Infrastructure Development for Hajj and Umrah Pilgrimage

Prepare a comprehensive pedestrian plan, including information, signage, rest and refreshment, emergency response, segregation from vehicular traffic and related construction and rehabilitation needs; prioritize the development of integrated urban transport including mass transit systems in the Holy Cities; develop inter-city transport including the Makkah – Madinah railway and terminal facilities for inter-city buses.

Strategic Task 1: Improving the infrastructure needed for pilgrim transport services using high capacity transportation modes:

- Improving the road network from the borders of the country to Makah and Medina.
- Completion and rehabilitation of all services and utilities at the pilgrims points of entrance, including resting areas, and megats at roads and providing them with all services they might need.
- The expansion of using regional railways to link all cities in the kingdom with Makah and Medina.
- Developing a comprehensive transportation system to serve pilgrims of Makah and the holly area where train transport is part of this system, and to take pedestrians in consideration.
- Establishing a local transportation network within Makah and Medina to cover the areas between pilgrim’s residences and the holly mosques and holly areas such as Al Rahma Mountain, Nemra mosque.
- Interconnecting and the integration between all modes of transportation and the main areas such as Mosques, Al Rahma Mountain, etc.
- Developing a new navigation and traffic management system for pilgrims in the central area of the holly mosques to give full details on entrances, exits, and routes to avoid congestion areas.

MOHajj , MOT,
MOI, MOMRA,
Hajj Research
Institute

Strategic Task 2: The completion of the remaining phases of the organizing plan of the frequent trips transportation approved by The Higher Commission for the development of holly sites in Makah and Medina:

- Constructing the passenger loading stations for pilgrims in the holly areas in addition to constructing the bus stops and modifying roads according to the frequent trip transportation
- Designing and planning an integrated pedestrian system within and in between the holly areas and linking it to the train stations.

MOHajj , MOT,
MOI, MOMRA,



NTS Action Programme: 5. Transport Safety

This Programme Area Transport Safety aims at enhancing traffic and transport safety in the Kingdom by implementing and strengthening institutional frameworks and capacities as well as targeted activities in the areas of enforcement, engineering, education and emergency response. It shall guide the key stakeholders in establishing a suitable institutional framework for transport safety work, in developing and implementing Transport Safety Programmes for the sub-sectors Land Transport, Maritime Transport and Aviation, in better coordinating activities and allocation of responsibilities as well as in enhancing standards for infrastructure and service provision.

Action 5-1: Improving the national Traffic Safety Programme for Roads that includes Allocation of Responsibilities for Road Safety and Strengthening Road Safety Capacities

MOI , MOT, MOMRA

Establish a functional coordination structure for addressing road safety issues in the Kingdom, headed by the Supreme Board for Traffic in accordance with the traffic law. Establish a Secretariat for the Supreme Board and substantive committees, such as a Committee on the National Government Road Safety Programme, a Committee on Municipal Road Safety Programmes, a Committee on Research, Evaluation and Data and a Road Safety Association.

- Elaborate, adopt and implement a road safety Programme
- Report yearly to the Government about the progress on the basis of agreed performance indicators and other key parameters
- Review on a 5 year term the Road Safety Programme
- Report factors that prevent the Supreme Board reaching its targets

Action 5-2: Allocation of Responsibilities for Road Safety and Strengthening Road Safety Capacities

MOI

Road Safety Responsibility: Review the activities of the road traffic responsible Ministries and agencies and consider how the range of road traffic tasks can be allocated to ensure a meaningful and coordinated implementation. This review shall address necessary capacities for law enforcement activities (core task of police), and reallocation of administrative and policy making functions. The allocation of tasks shall consider:

- Alignment of procedures for license plate registration, vehicle inspection and third party insurance;
- Establishment of a central database on road accidents, improvements and traffic volume;
- Establishment of lead agency to oversee road design, maintenance, road safety audit and road safety inspection guidelines for urban and inter-urban roads;
- Strengthen of traffic engineering and road safety capacities of traffic units within the administration;
- Establishment of a Road Safety Policy Department to: function as the Secretariat of the Supreme Board for Traffic, to coordinate and monitor the implementation of the road safety strategy and the road safety Programme;
- Establishment of Urban Traffic Engineering and Urban Road Safety departments at city level

MOT

Supreme Board for Traffic



NTS Action Programme: 5. Transport Safety

<p>Capacity Building: Establish a comprehensive capacity development Programme for road safety to enhance road safety knowledge at many levels of decision-making:</p> <ul style="list-style-type: none"> - Develop and establish comprehensive capacity development Programmes for all levels from police officers up to municipal traffic engineers; - Introduce Road Safety as a chapter in the education of civil engineers and other studies with strong linkage to experiences and knowledge from countries with better road safety records; - Establish a Center of Excellence in Road Safety for research, knowledge transfer and application as an independent institute under the auspices of MOT or attached to a university of the Kingdom; - Integrate the present activities of the KACST National Road Safety Committee into this Programme, as well as Programmes of other Universities 	<p>MOT Supreme Board for Traffic</p>
<p>Action 5-3: Develop a National Land Transport Safety Programme for Roads, Railways, and Pipelines</p> <p>To translate the overall objective of enhancing road and railway safety into specific activities and to assign responsibilities a National Land Transport Safety Programme shall be elaborated, comprising road safety and railway safety Programmes. The safety Programmes shall be continuously reviewed and updated.. Components of the Road Safety Programme are:</p>	
<ul style="list-style-type: none"> - <u>Road Vehicles:</u> To improve the roadworthiness scope and quality of the vehicle inspection system shall be reviewed and amended 	<p>MOI</p>
<ul style="list-style-type: none"> - <u>Road Infrastructures:</u> The standards for infrastructure provision on urban and inter-urban roads as well as application of enhanced traffic management technologies shall be reviewed and enhanced in accordance with best international experiences and norms 	<p>MOT, MOMRA</p>
<ul style="list-style-type: none"> - <u>Behavior, awareness, education and enforcement:</u> To enhance road user behavior a comprehensive Programme for education and training of road users as well as enforcement shall be elaborated as road user behavior is a key factor for road safety in the Kingdom 	<p>MOI, Traffic Police</p>
<ul style="list-style-type: none"> - <u>Data management:</u> To improve the basis for informed decision-making, the quantity and quality of data and knowledge on road safety issues shall be enhanced, as data is needed for analysis into information that is the basis for further research on crash causes and countermeasures 	<p>MOI, MOT, MOEP</p>
<ul style="list-style-type: none"> - <u>Emergency response:</u> To reduce the consequences of accidents – in particular mortality levels – a proper incident management system shall be established with focus on response times and accident site management 	<p>MOI</p>



NTS Action Programme: 5. Transport Safety

<ul style="list-style-type: none"> - <u>Railway Safety</u>: The Railway Safety Sub-Programme shall include the elements: Risk evaluation and control, Safety plans, common safety targets and indicators, Management of standards, Training and competence of personnel, Accident reporting and investigation, Emergency Planning 	<p>MOT (SRO, Railway Authority)</p>
<ul style="list-style-type: none"> - <u>Dangerous Goods Transport</u>: New rules have been elaborated and are being introduced by MOT. The rules are aligned with international and UN standards, and need to be comprehensively implemented with all concerned parties such as drivers, operators, Traffic Police and Highway Patrol, Civil Defense, and Saudi Red Crescent Authority. While the rules for dangerous goods transport on roads represent an important part of the dangerous goods transport safety Programme other areas such as for dangerous goods transport by rail (Railway Authority), air (GACA) and dangerous goods handling at ports and terminals (SPA) need to be included in the safety Programmes. 	<p>MOT,</p>
<ul style="list-style-type: none"> - <u>Transport by Pipelines</u>: The Pipeline Safety Sub-Programme shall include the regulations for construction of pipelines and operations for dangerous goods transport, and address safety measures for pipeline infrastructure in relation to urban development and other transport infrastructures 	<p>Ministry of Petroleum and Minerals, ARAMCO, Ministry of Water and Electricity</p>
<p>Action 5-4: Establishing a National Maritime Transport Safety Programme</p>	
<p>The concerned authorities for maritime safety in the Kingdom are MOT, SPA, Boarder Guards and PME and the overseeing Ministry MOT cooperate with the implementing agencies to establish the National Maritime Transport Safety Programme. It shall include applicable legislation and the enforcement and implementation mechanism for:</p> <ul style="list-style-type: none"> - Liability and Compensation, - Marine Equipment, - Port State Control, - Port Reception Facilities, - Dangerous Goods Handling - Ship Safety Standards, - Training of Seafarers - Inspection on a proper execution of safety rules according to IMO will encourage authorities and companies to improve safety operations 	<p>MOT SPA, Border Guards, PME</p>
<p>Action 5-5: Establishing a National Air Transport Safety Programme</p>	
<p>The transport safety sector Programme for aviation safety is to be formulated, developed and maintained by GACA and shall document in line with ICAO recommendations:</p> <ul style="list-style-type: none"> - Apply the Kingdom's Programme for Civil Aviation safety approved by ICAO, and obliging the service providers to implement their respective safety management Programmes, including the determination, fixing and assessment of risks, and establishing a mechanism to reduce them. 	<p>GACA</p>



NTS Action Programme: 5. Transport Safety

- Develop safety awareness Programmes for operators and license holders through the publication of information on safety, and encouraging the submission of reports related to civil aviation (mandatory reports, voluntary reports, and obstacle reports).
- Establish a central data base to include all incidents related to civil aviation, and to issue periodical reports showing effects on safety and recommendations for improving safety.
- Implement regular inspection Programmes for service providers (airports, air-navigation, air operators, and airplane maintenance centers).
- Continue the updating and revising of safety-related rules, regulations and procedures to comply with international regulations and requirements
- Provide specialist staff: there is a need to prepare job descriptions for the technicians involved in air transport safety in order to attract this category to join GACA, since presently there is no job description agreeable with the responsibilities of such category and matching the incentives and the advantages offered by the private sector and Saudi Airlines.
- Investigation Office for Airplane Incidents: Expand the activity of this office to include all modes of transport in the Kingdom as it is the case in many countries, and make it an independent agency not operating under the authority of ministries or agencies supervising such services.



NTS Action Programme: 6. Environmental Protection

The Programme Area Environmental Protection aims at minimizing negative environmental impacts and health risks brought upon by the transport sector, through addressing the formulation of policies, regulations and standards under the control of the Presidency for Meteorology and Environment (PME) and compliance to issued regulations by concerned implementing agencies.

Action 6-1: Formulation of Environmental Protection Strategy and Emissions Regulations for the Transport Sector

Develop and issue emissions standards within the framework of the Sustainable Development Strategy of the Kingdom. Emissions standards shall address aspects of international available technologies and practices, and international industrial / manufacturing standards, fuel qualities, health risks, international commitments of the Kingdom with respect to CO₂ emissions, and how these standards can be practically and effectively implemented, enforced, measured and monitored.

- Incorporate Environmental considerations into the planning process for development projects, Programmes and developmental plans, for various sectors and the general development plan.
- Review and adjust emissions and fuel quality standards and regulations.
- Prepare vehicle emissions standards and regulations for specialized transportation (*e.g. buses used in inner cities and for transportation of pilgrims*).
- Identify permissible emissions levels and prepare regulations for the transport sector (*railway, maritime and aviation sector*) including an implementation plan for introduction of cleaner environmental standards for vehicles and introduction of cleaner fuels.

PME

Action 6-2: Capacity Building for Effective Implementation of Environmental Impact Assessment

Implement existing compulsory regulations for EIA for transport infrastructure projects through capacity building measures to assist the implementing agencies to comply with the compulsory regulations and provide guidance in preparing and administering EIAs.

- Develop EIA Guidelines for transport infrastructure projects (roads, rail, ports and airports) with focus on enhancing administrative procedures to implement and monitor EIA.
- Establish capable environmental units in all concerned transport sector agencies
- Lend assistance to the project implementing agencies for establishing the environmental units.
- Establish a customer support services at PME

PME

Annex 2: Transport Data and Statistics Programme

Background

A comprehensive system of statistical information on the transport sector is the basis on which the necessary knowledge for informed business and policy decisions shall be based. However, the assessment of the present situation in the Kingdom of Saudi-Arabia in the framework of the National Transportation Strategy studies has led to the conclusion that present transport statistical information is sketchy and does not meet in terms of quantity as well as of quality the level required by users. Thus a need for better data has clearly emerged from the consultations with all concerned Ministries and agencies and from the first NTS Workshop as a priority in all transport areas.

Transport and traffic data for statistical purposes is collected in the Kingdom by many institutions and in many areas but it is not always processed to statistical information for publication. Administrative data, e.g. road vehicle registration, air passenger movements, police accident records are usually available but need to be processed to proper quality standards including completeness, uniformity, accuracy and timeliness. Besides the annual Statistical Yearbook, published by the Central Department of Statistics and Information, which contains very limited statistical information on the transport sector, various agencies publish some statistical data. Efforts to consolidate available statistical information in a transport statistics publication or to produce at least a source list have so far not materialized.

To achieve a comprehensive and effective transport statistical system is not a one-time action but rather a dynamic process of responding to (changing) user needs and making use of fast developing technological innovations. Simply imagining the potential use of satellite navigation technologies in connection with internet applications to monitor transport flows gives an idea of the speed by which the collection and processing of on-line data and of statistics may progress. A period of 20 years would not be exaggerated for the implantation and implementation of such a comprehensive transport statistical system. This must be done in well defined steps and phases keeping always the final goals and objectives in sight.

Establishing and maintaining this envisaged statistics system requires at the institutional level a strong coordinating agency possibly assisted by an inter-ministerial committee for the planning and implementation of all related measures. MOT with its broad portfolio for the provision of national transport infrastructure shall assume the key responsibility for implementing related actions and will closely cooperate with MOEP and Central Department of Statistics and Information. All concerned Ministries and Agencies are required to cooperate with MOT and contribute as necessary.

Purpose and Expected Results

The main purpose of this action is to develop the concept for a comprehensive system of transport sector data and statistics in response to data needs of potential users. This implies the identification of users and their data needs, clear definitions in form of a glossary, and recommendations how to implement the system by assigning responsibilities and tasks in a collaborative process of government administrations and private sector organizations.

Scope of Work

Task 1: Review of international experience and best practices

Collect basic transport statistical documentations from neighboring countries, selected emerging economies as well as selected industrialized countries and assess their usefulness for the Kingdom in terms of a benchmarking exercise. Alternative solutions for a basic transport statistical system for the Kingdom shall be filtered out from this exercise.

Task 2: Inventory of existing data and statistics

1. Identify all existing transport data and statistics related to all modes of transport:

- Road
- Rail (with passenger stations and freight terminals)
- Aviation (with airports)
- Shipping (with ports)
- Pipeline
- Urban Transport
- Inter-modal interfaces

2. Address the following aspects:

- Transport infrastructure
- Transport equipment: road vehicles, locomotives and wagons, vessels etc.
- Transport enterprises (performance and employment)
- Traffic (movement of means of transport) volumes (e.g. number of vehicles) and performance (e.g. vehicle-kilometers)
- Transport (movement of persons and goods) volumes (e.g. number of passengers, tonnes) and performance
- Transport and traffic safety and security
- Energy consumption
- Environmental effects
- Financial data

An example of the data base for road transport is given in Table 2.

Statistical products may address themes of special importance such as:

- Hajj and Umrah transport
- Traffic and transport in (urban) agglomerations
- Intermodal transport flows
- Transport of dangerous goods

All available data and data sources will be compiled in a data base in electronic form allowing interested parties to access this information via the internet.

Task 3: Identification of user groups and their data requirements

Identify users and user categories of transport data and statistics including at least:

- Government authorities and related administrations
- Transport operators and their representations
- Shippers and their representations
- Transport researchers, planners and consultants
- Media

Organize a user survey to explore information needs and expectations of different user groups.

From this survey, user-oriented functions of transport statistics will be derived and recommended. (Market observation requires a short-term approach with monthly or quarterly data; long-term trends are established from annual and five-yearly data).

Task 4: Definitions (glossary) and quality standards

Propose definitions and draft a glossary, covering all modes and aspects of transport taking account of international and foreign state-of-the-art templates.

General quality standards will be proposed.

Task 5: Design and content of the data base (output)

Prepare a detailed scheme of transport statistics in terms of individual data bases and of tables for publication. Existing data sources will be integrated, data gaps identified and specified. The modal approach will be complemented by an inter-modal approach where suitable.

Recommend for each individual data subset the periodicity (monthly, quarterly, annually, five-yearly).

Geographical aspects will be addressed as far as suitable: territorial data (national, regional) as well as transport flow data (international, interregional).

Relevant trip purposes (for passenger) and commodity types (for freight) will be defined and recommended.

Task 6: Concept of data sources, production, storage, accessibility

Elaborate a detailed concept for the production, storage and accessibility of data by users. Sources of data may be:

- Primary data (e.g. traffic counts, household mobility surveys)
- Administrative data
- Estimates on the basis of historical (trend) data
- Calculation and modeling of transport impacts (e.g. accidents, emissions)

Task 7: Implementation Programme, schedule and finance

Define and recommend the responsibilities of each individual organization regarding:

- Data sources and collection
- Data processing
- Data storage
- Data access by users
- Financing
- Capacity Development

Table 1: Database Elements for Road Transport

Road Sector	Source	Agency	Remarks
1. Infrastructure (N, R) a) Length of roads by type	Road registry	MOT	
2. Means of transport (N, R) a) Registered vehicles by type and size b) Newly registered vehicles by type and size	Vehicle registry	MOI (General Traffic Office)	Vehicle registration are only meaningful if unusable/unused vehicles are taken off
3. Transport enterprises (N, R) a) Bus operators (scheduled urban, rural; tourism; others) by fleet size, turnover, employment, etc. b) Freight operators by fleet size, turnover, employment, etc.		SAPTCO, MOT Public Transport Division	National enterprise statistics are normally not focused enough
4. Traffic performance (vehicle-km) (N) a) cars, vans, minibuses b) Buses c) HGVs	Traffic counts, vehicle fleets and average mileage (E)	MOT	Needs reliable traffic counts and traffic modeling
5. Transport performance (N) a) Passengers (passenger-km) • cars, vans, minibuses • buses b) Freight (tonne-km) • HGV by size (small, medium, large)	Surveys, traffic performance and average occupancy/load (E)	MOT	Needs representative sample O/D surveys as well as traffic modeling;
6. Traffic safety (N) a) Accidents with fatalities, serious injuries, slight injuries, material damage only b) Fatalities, serious injuries by cause, mode used, age c) Accidents by road type	Police and hospital records	Ministry of Health, Highway Police, others	Police and health statistics need reconciliation on fatalities; requires research on underreporting

Table 2: Database Elements for Road Transport (continued)

Road Sector	Source	Agency	Remarks
7. Energy consumption (N) Fuel consumption <ul style="list-style-type: none"> • gasoline • diesel 	Fuel sales, deliveries	MOPMR, Saudi ARAMCO	
8. Environmental effects (N) Emission volumes by type of emission, vehicle type	vehicle-km and emission factors	MOT, PME	Research activities for estimation of emission factors
9. Financial data (N), e.g. a) Fuel prices b) Public bus fares (urban, long distance) c) Investments	various	MOPMR SAPTCO MOF MOT	
<i>N = national; R = regional</i>	<i>E = estimate</i>		

Annex 3: Agencies participating in NTS Development

<ol style="list-style-type: none"> 1. Ministry of Transport (MOT) 2. Saudi Ports Authority (SPA) 3. Saudi Railways Organization (SRO) 4. Saudi Arabian Public Transport Company (SAPTCO) 5. Ministry of Municipal and Rural Affairs (MOMRA) 6. Ar-Riyadh Development Authority (ADA) 7. Ministry for Commerce and Industry (MOCI) 8. Royal Commission for Jubail and Yanbu 9. Council of Commercial and Industrial Chambers 10. SASO 11. Supreme Commission for Tourism and Archeology (SCTA) 12. Ministry of Economy and Planning (MOEP) 13. Central Department of Statistics and Information 14. Ministry of Finance (MOF) 15. Saudi Customs 16. Saudi Arabia General Investment Agency (SAGIA) 17. King Abdulaziz City for Science and Technology (KACST) 18. National Committee for Traffic Safety 	<ol style="list-style-type: none"> 19. Ministry of Petroleum and Mineral Resources (MOPMR) 20. Saudi Aramco 21. MAADAN 22. Saline Water Conversion Corporation (SWCC) 23. Ministry of Interior (MOI) 24. Border Guards 25. Civil Defense 26. National Traffic Police 27. Riyadh Traffic Bureau 28. Highway Patrol 29. Motor Vehicle Periodic Inspection (MVPI) 30. Roads Special Forces 31. Ministry of Health (MOH) 32. Saudi Red Crescent Authority (RCA) 33. Ministry of Hajj (MOHajj) 34. Ministry of Agriculture (MOA) 35. Ministry of Defense and Aviation (MODA) 36. Saudi Arabian Airlines (SAUDIA) 37. General Authority for Civil Aviation (GACA) 38. Presidency of Meteorology and Environment (PME)
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Annex 4: Glossary

ABS	Anti-lock braking system
ADA	ArRiyadh Development Authority
ADR	Accord des marchandises Dangereuses par Route
AETR	Accord Européen sur les Transports Routiers
CMR	Convention Marchandise Routiere
CPC	Certificate of Professional Competence
DOT	Department of Transport
EDI	Electronic Data Interchange
EIA	Environmental Impact Assessment
ESP	Electronic stability program
EU	European Union
Eurostat	Statistical Office of the European Communities
FIATA	Fédération Internationale des Associations de Transitaires et Assimilés
G	Gregorian Date
GACA	General Authority of Civil Aviation
GCC	Gulf Cooperation Council
GTZ	German Technical Cooperation Agency
H	Hijri Date
ICAO	International Civil Aviation Organization
ICT	Information Communications Technology
IMO	International Maritime Organisation
IRU	International Road Transport Union
ISPS	International Ship and Port Facility Security
ITS	Intelligent Transportation Systems
JIP	Jeddah Islamic Port
KAAP	King Abdula Aziz Port, Dammam
KACST	King Abdulaziz City for Science and Technology
KSA	Kingdom of Saudi Arabia
MARPOL	Convention on Marine Pollution
MOCI	Ministry of Commerce and Industry
MODA	Ministry of Defense and Aviation
MOEP	Ministry of Economy and Planning
MOF	Ministry of Finance
MOH	Ministry of Health
MOHAJJ	Ministry of Hajj
MOI	Ministry of Interior



MOMRA	Ministry of Municipal and Rural Affairs
MOPMR	Ministry of Petroleum and Mineral Resources
MOT	Ministry of Transport
MVPI	Motor Vehicle Periodic Inspection
NTS	National Transportation Strategy
OECD-IRTAD	OECD International Road Traffic and Accident Database
PIF	Public Investment Fund
PME	Presidency of Meteorology and Environment
PPP	Public Private Partnership
PSO	Public Service Obligation
SAGIA	Saudi Arabian General Investment Agency
SAPTCO	Saudi Arabian Public Transport Company
SARC	Saudi Arabian Railway Company
SCTA	Supreme Commission for Tourism and Archeology
SPA	Saudi Ports Authority
SR	Saudi Riyal
SRO	Saudi Railways Organization
TIR	Transport Internationaux Routier
TSI	Technical Specifications for Interoperability
UIC	Union Internationale des Chemins de Fer
WCO	World Customs Organisation
WTO	World Trade Organization