TRANSPORT

31.1 INTRODUCTION

Over the past four decades, the transport sector underwent fundamental changes embodied in the building of an advanced transport network covering all regions, linking the Kingdom to neighbouring countries and the world beyond. The Eighth Development Plan continued efforts to upgrade the efficiency and productivity of transport services by sustaining the policy of restructuring and privatization.

Under the Eighth Development Plan, projects for expanding the railway network were launched. This will provide an effective means for transporting passengers and goods among regions. It will also provide advanced transport services linking the holy sites with the ports and gateways of the Kingdom. Liberalization of the domestic air transport market was also initiated, in addition to continuing with the restructuring and privatization of the Saudi Arabian Airlines Corporation and comprehensive expansion of King Abdul-Aziz International Airport in Jeddah.

The Ninth Development Plan will continue developing transport facilities and improving their efficiency, in order to keep up with growing demand. Moreover, integration of transport facilities into a multimodal transport system will be enhanced, and their position in the regional and international transport system will be strengthened. The plan will focus on implementing the various aspects of the National Transportation Strategy, once adopted by the Council of Ministers. The Plan also aims to improve the efficiency of public transport services within cities, improve safety of all modes of transport, and safeguard the environment from negative impacts of transport, as well as provide within the national transport system the requirements for national defence, security and responsiveness to disasters.

This chapter reviews the current conditions of the transport sector, and the developments that took place during the Eighth Development Plan. It also reviews the key issues and challenges that need to be addressed
under the Ninth Development Plan, assesses projected demand for transport services, highlights the future vision, and presents the general objectives, policies and targets for the sector under the Ninth Development Plan.

### 31.2 CURRENT CONDITIONS

#### 31.2.1 Roads

The national road network length improved considerably during the Eighth Development Plan. Over the first four years of the plan, total length of roads increased from 165 thousand km in 2004 to about 183.9 thousand km in 2008, reflecting an average annual growth rate of 2.7%. The increase in the paved-roads network was around 7.6 thousand km, an average annual growth rate of 3.9% (Figure 31.1). The unpaved-roads network expanded at an average annual rate of 2.3%. Over the same period, overall road density rose from 6.9 km to 7.4 km per thousand of population, reflecting improved accessibility provided by this key transport facility.

*Figure 31.1
Paved-Road Network
Eighth Development Plan (*)

(*) Up to the end of the fourth year of the Eighth Development Plan.

Source: Ministry of Transport.
Table 31.1
Road Network by Administrative Region
2008

<table>
<thead>
<tr>
<th>Region</th>
<th>Paved Roads (km)</th>
<th>Unpaved Roads (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Main Roads</td>
<td>Secondary Roads</td>
</tr>
<tr>
<td>Riyadh</td>
<td>2485</td>
<td>2230</td>
</tr>
<tr>
<td>Makkah</td>
<td>2196</td>
<td>1007</td>
</tr>
<tr>
<td>Madinah</td>
<td>1233</td>
<td>937</td>
</tr>
<tr>
<td>Qasim</td>
<td>710</td>
<td>1010</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>2252</td>
<td>1349</td>
</tr>
<tr>
<td>Asir</td>
<td>884</td>
<td>887</td>
</tr>
<tr>
<td>Tabuk</td>
<td>1585</td>
<td>189</td>
</tr>
<tr>
<td>Hail</td>
<td>763</td>
<td>433</td>
</tr>
<tr>
<td>Northern Borders</td>
<td>934</td>
<td>0</td>
</tr>
<tr>
<td>Jizan</td>
<td>269</td>
<td>222</td>
</tr>
<tr>
<td>Najran</td>
<td>454</td>
<td>528</td>
</tr>
<tr>
<td>Baha</td>
<td>122</td>
<td>389</td>
</tr>
<tr>
<td>Jawf</td>
<td>984</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14871</strong></td>
<td><strong>9181</strong></td>
</tr>
</tbody>
</table>

*Source: Ministry of Transport.*

Notably, the roads sector received substantial financial support through the three phases of the budget surplus revenues programme that was commanded by The Custodian of the Two Holy Mosques, receiving a total of SR14.5 billion.

Major urban centres are linked by modern fast and dual-carriage highways. Governorates and other centres are linked by major axis roads: along east-west or north-south corridors. A large part of the main roads of these two axes, 7,482 km long, were implemented by the end of the fourth year of the Eighth Development Plan. Work is proceeding on completing the remaining distance under the Ninth Development Plan. A study is being conducted for establishing an alternative routes’ network to facilitate access and reduce distances; thereby achieving significant savings in transport costs. In addition, comprehensive development to convert international roads that link the Kingdom with neighbouring countries, especially GCC countries, into dual-carriage roads is under way.

By the end of the Eighth Development Plan, the estimated total number of registered vehicles actually operating on the roads was 5.36 million,
with private cars and light trucks constituting 96% of the total (Figure 31.2). Road transport using private vehicles is the foremost means of transport, accounting for 85% of all trips. This is dictated in the first place by consumer preferences, and spatial distribution of production and consumption centres locally and nationally, in addition to appropriate alternatives being limited in some parts of the network.

![Figure 31.2
Road Transport Fleet
2009](image)

Over the same period, the number of buses of various sizes was 100 thousand, while the number of trucks and tankers of various sizes was 190 thousand, with an estimated total capacity of 6.6 million metric tonnes per fleet per day.

The increase of the average rate of car ownership, the increasing geographical density of roads, and expansion of development projects in various regions, resulted in an increase of overall mobility by 29% over the period 1999–2008.

The Saudi Public Transport Company (SAPTCO) continued to provide transport services with a fleet of 3,000 modern buses, serving 382
cities and villages within the Kingdom and 30 international destinations. The number of passengers served by the company in 2008 was about 6.9 million passengers travelling between cities, and about 11.9 million passengers using the service inside cities, including about 5.5 million passengers for the purpose of Hajj (pilgrimage) and Umrah, while 0.6 million passengers used the service for international trips.

### 31.2.2 Railways

Currently, the railway network is limited to the line, used for passengers and freight connecting Dammam on the Eastern coast with Riyadh. The volume of cargo transported grew from about 2.6 million tonnes in 2004 to about 3.5 million tonnes in 2008, reflecting an annual average growth rate of about 8%, while the number of passengers transported over the same period fluctuated (Table 31.2).

<table>
<thead>
<tr>
<th>Activity of Railway Network</th>
<th>Eighth Development Plan(*)</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>Average Annual Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Passengers (thousand)</td>
<td>1,124.0</td>
<td>1,228.0</td>
<td>1,109.9</td>
<td>1,071.1</td>
<td>1,107.1</td>
<td>–0.38</td>
<td></td>
</tr>
<tr>
<td>Cargo (million tonnes)</td>
<td>2.56</td>
<td>2.50</td>
<td>2.67</td>
<td>3.27</td>
<td>3.48</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>Number of Containers (thousand standard containers)</td>
<td>280</td>
<td>315</td>
<td>318</td>
<td>349</td>
<td>398</td>
<td>9.2</td>
<td></td>
</tr>
</tbody>
</table>

(*) Up to the end of the fourth year of the Eighth Development Plan.  
Source: Saudi Railways Organization.

During the Eighth Development Plan, implementation of an important expansion for the railway network was embarked upon, including three projects that will add about 3,900 km of railway lines. The first is the north-south line, linking the mining sites in the north to Riyadh, passing through Jawf, Hail and Qasim regions, with a spur to Ras Al Zour port on the Arabian Gulf. An independent company was licensed in 2006 to construct and operate this line. The second project is the "Haramain Train" project, linking the cities of Makkah, Madinah and
Jeddah by a high-speed passenger rail. Implementation of this project began in 2009 and was funded by the Public Investment Fund. The line is intended to transport pilgrims and Umrah performers and visitors from and to the holy places. The third project is the Landbridge Project, which will connect Dammam on the Arabian Gulf with Jeddah on the Red Sea coast, via Riyadh, in addition to a spur connecting Dammam with Jubail. This project, is expected to be implemented through a build-operate-transfer (BOT) concession (Figure 31.3).

**Figure 31.3**
Planned Railway Network
Ninth Development Plan

*Source: Saudi Railways Organization.*
31.2.3 Air Transport

The air transport network comprises 26 airports, including 4 international, 6 regional and 16 domestic airports. The domestic air transport, which underwent significant development under the Eighth Plan, is an important means of transport, particularly since the geographical distribution of airports is such that about 90% of the population live within about a two-hour drive from the nearest airport, thereby making air transport the preferred option for return trips of over 350 km undertaken within one day.

Under the Eighth Plan, passenger air transport grew at an average annual rate of 7.2%, amounting to about 45.3 million passengers in 2008 (Figure 31.4), with international airports accounting for 84.8% of total passenger traffic. In contrast, the growth rate of goods transported by air was at an average annual rate of 1.7%.

![Passenger Traffic at Airports](image)

**Figure 31.4**
Passenger Traffic at Airports
Eighth Development Plan (*)

<table>
<thead>
<tr>
<th>Year</th>
<th>International</th>
<th>Internal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>27.0</td>
<td>7.3</td>
<td>34.3</td>
</tr>
<tr>
<td>2005</td>
<td>29.0</td>
<td>7.6</td>
<td>36.6</td>
</tr>
<tr>
<td>2006</td>
<td>29.7</td>
<td>8.0</td>
<td>37.6</td>
</tr>
<tr>
<td>2007</td>
<td>32.2</td>
<td>8.4</td>
<td>40.6</td>
</tr>
<tr>
<td>2008</td>
<td>38.4</td>
<td>6.9</td>
<td>45.3</td>
</tr>
</tbody>
</table>

(*) Up to the end of the fourth year of the Eighth Development Plan.

*Source: General Authority of Civil Aviation.*

During the Eighth Development Plan, a comprehensive expansion project of King Abdul-Aziz International Airport began, aimed at raising its capacity from 15 to 80 million passengers annually by the
end of the project. In addition, construction by a BOT concession of a new international airport in Madinah was approved. The capacity of this airport is expected to reach about 12 million passengers annually by the end of the first stage of the project in 2014.

### 31.2.4 Seaports and Marine Transport

The total volume of goods handled by seaports increased from 119.9 million tonnes in 2004 to 154.8 million tonnes in 2008, an average annual growth rate of 6.6% (Figure 31.5). Movement of handled goods in ports is expected to be affected by the global economic crisis that erupted towards the end of the Eighth Development Plan.

In an effort to increase the capacity of seaports, the infrastructure at the Jeddah Islamic Port and the King Abdul-Aziz Port in Dammam was improved by constructing new container terminals with private sector funding. In 2008, the total number of handled containers was 4.65 million TEU; an increase of 17.7%, compared with 2004. Jeddah Islamic Port accounts for 71% of total container handling, compared with 27% for King Abdul-Aziz Port in Dammam.

### Figure 31.5

Cargo Handled by Commercial and Industrial Ports

*Eighth Development Plan (*)

<table>
<thead>
<tr>
<th>Year</th>
<th>Commerci Portsal</th>
<th>Industrial Ports</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>51.5</td>
<td>68.4</td>
<td>119.9</td>
</tr>
<tr>
<td>2005</td>
<td>60.7</td>
<td>71.5</td>
<td>132.2</td>
</tr>
<tr>
<td>2006</td>
<td>63.6</td>
<td>70.2</td>
<td>133.8</td>
</tr>
<tr>
<td>2007</td>
<td>69.1</td>
<td>71.8</td>
<td>140.9</td>
</tr>
<tr>
<td>2008</td>
<td>76.5</td>
<td>78.3</td>
<td>154.8</td>
</tr>
</tbody>
</table>

( * ) Up to the end of the fourth year of the Eighth Development Plan.

*Source: Saudi Ports Authority.*
In 2008, the number of passengers travelling through ports was 1.3 million, compared with 2.05 million in 2004; a decrease of 36.6%.

Under the Eighth Development Plan, implementation of the Ras Al Zour port project on the coast of the Arabian Gulf began. This port will serve mainly the mining and associated industries.

In 2008, the number of licenses issued for marine economic activities was 122; an increase of 45% compared with the end of the Seventh Development Plan in 2004. The number of vessels registered was 653 ships with a total capacity of about 1.9 million tonnes; an increase of 6.5% over the same period. In addition, modern ferries were supplied to increase efficiency of the transport services between Jazan and Farasan island.

### 31.2.5 Intra-city Public Transport

The Eighth Development Plan attached importance to developing and modernising the intra-city public transport system, in order to improve the efficiency of internal transport, reduce pressure on the environment and rationalize energy consumption. Under the plan, studies were commenced to prepare comprehensive Intra-city public transport plans. Also, the preparation of a study on policies and legislation to regulate public transport was completed and the results of the study were reviewed and forwarded to the Ministerial Committee for Administrative Organization. Within this framework, the detailed design of an Intra-city public transport system for Riyadh, using light rail trains (LRT), was commenced under the Eighth Development Plan.

Under the Eighth Plan, a number of regulations were adopted and measures taken including: the executive regulations of the public transport system, the regulations governing small-car rental, the regulations governing the operation of public taxis, and the regulations for licensing and conditions of operation of school transport and female-teachers transport.
31.2.6 Performance Efficiency

Under the Eighth Development Plan, the Ministry of Transport continued enhancing the road network and improving their conditions, through developing the national system that consists of traffic control stations and truck weighing stations. This system protects the roads from excessive loads, and it collects data on traffic flows for use in managing, developing and maintaining the road network.

The financial position of the Saudi Railways Organization continued to improve under the Eighth Plan, due to growing demand for its services in general, and cargo and containers services, in particular, as well as to continued improvements in productivity. Total revenues from key activities increased from SR180.9 million in 2004 to SR 290.8 million in 2008; an increase of 61%. The biggest share of total income was from transport of goods, which amounted to 82% in 2008.

Under the policy of restructuring and privatization of transport activities, the assets of the Saudi Railways Organization were transferred, in compliance with the Council of Ministers Resolution No. 244 of 2006, to the company that will undertake the execution of the Land Bridge project, linking Jeddah and Dammam via Riyadh. In addition, approved expansions of the railway network will be implemented through partnerships with the private sector. These are expected to have a positive impact on the efficiency of the railways in particular and the whole of the transport system in general.

The Eighth Development Plan had four targets for the air transport sector: approving and implementing the open-skies policy; completing the privatization of the national carrier, Saudi Arabian Airlines; restructuring the General Authority of Civil Aviation (GACA); and developing King Abdul-Aziz International Airport in Jeddah. Over the period, substantial progress was made towards achieving these targets. The Kingdom began to adopt an open-skies policy, and the new Civil Aviation Act was issued, defining the task of GACA, which is primarily licensing national and foreign airlines. For its part, GACA issued regulations and procedures for granting licenses to air carriers.
Under the Plan, the first phase of the programme for promoting competition in the air transport market was concluded, with licenses granted to two companies that started working in the domestic and regional markets alongside Saudi Arabian Airlines. In preparation for full privatization, several units of Saudi Arabian Airlines, such as catering and cargo services, were privatized. Contracts were signed with competent international companies in 2008 to manage and operate on a commercial basis King Khalid International Airport in Riyadh, King Abdul-Aziz International Airport in Jeddah and King Fahd International Airport in Dammam, with the aim of upgrading their administrative efficiency and financial viability in order to enhance their attractiveness.

Implementation of the privatization programme of the management and operation of seaport facilities continued. The number of concessions granted was 29, for periods ranging from 10 to 20 years. The private sector invested about SR4 billion in developing ports to enhance their regional and global competitiveness.

31.2.7 Traffic Safety

The number of traffic accidents on the road network rose to about 486 thousand in 2008, compared with about 293.3 thousand in 2004. Accidents in urban areas accounted for 86% of the total. The rise in the number of traffic accidents on the roads led to increasing fatalities, making this a most troubling issue. The number of deaths caused by road accidents increased from 5,168 to 6,458 over the same period. Serious accidents resulting in deaths and injuries constituted 20% of the total in 2008, compared with 8.8% in 2004. In response to these developments, new traffic regulations were issued and work on monitoring road traffic and record traffic violations using an advanced ICT network-based (SAHER) is proceeding.

31.2.8 Environmental Protection

Consistent with the policies of the Eighth Development Plan, environmental impact assessment became a key component of
feasibility studies of all large transport projects, and conservation of the environment became one of the most important conditions of project planning, design and implementation. The National Transportation Strategy includes a special section on the environment. The resolution of the GCC Supreme Council on the adoption of unified standards and criteria for noise levels and air quality in GCC countries was applied. The national strategy for dealing with environmental disasters, in which transport plays a major part, is being prepared.

Traffic density in the cities is a major source of pollution, placing increasing pressure on the environment and public health. This is an important factor calling for developing an integrated public transport system in large and medium cities, which is currently being studied, with implementation expected to begin over the next few years.

31.2.9 Institutional and Organizational Development

The transport sector is undergoing rapid, radical institutional and regulatory developments, through both restructuring and privatization, which cover all modes of transport and related services. The following were the most important developments under the Eighth Development Plan:

- **Roads**

  A new traffic system and its executive regulations were issued. Public transport policies and legislation are undergoing a comprehensive review, with the aim of bringing about structural and regulatory development. Mechanisms for raising the efficiency of service stations on the roads and reviewing the necessary frameworks are also being discussed.

- **Railways**

  The Railway Authority, as an independent body tasked with regulating the sector, was established to ensure fair competition, set fees and prices, and license new activities. The Council of Ministers issued a resolution approving the establishment of the Saudi Railway Company
(SAR), to be responsible for the north-south railway project, and the establishment of The Saudi Land Bridge Company. In view of the significant developments in the sector, new railway regulations are currently under preparation.

- **Air Transport**

The Civil Aviation Act, the organization of the General Authority for Civil Aviation (GACA), the civil aviation tariff system, and the civil aviation economic regulations were approved. In 2007, two air carriers were licensed to work alongside the Saudi Arabian Airlines in local and regional markets. In addition, contracts were signed with international companies to manage the three international airports in Jeddah, Riyadh and Dammam, and Prince Mohammad Bin Abdul-Aziz Airport in Madinah was classified as an international airport.

- **Marine Transport**

In view of domestic and international developments, especially the Kingdom's accession to the WTO, and the desire for expanding trade with the world, work is proceeding on formulating the Saudi commercial marine act to unify all marine transport regulations.

### 31.3 ISSUES AND CHALLENGES

#### 31.3.1 Infrastructure Development

- **Transport infrastructure**

Various agencies are engaged in furnishing the transport sector with infrastructural services, each within its respective competency. However, despite the steady progress achieved by the various transport modes, further integration is called for. A number of successful international experiences indicate that the efficiency of the transport sector can be improved through promoting linkages among various transport modes in the early planning stages.
This is one of the fundamental issues that will be addressed by the National Transportation Strategy (NTS), which involves a long-term framework, through which the tasks of the various relevant agencies will be determined. Hence, under the Ninth Development Plan, all agencies will prepare their requirements of infrastructural projects in compliance with the strategy; offering evidence of economic feasibility, cost estimates, and funding programmes. Thus, there will be, at an early stage, linkages between planning and finance of infrastructural developments. Moreover, to ensure dynamic control according to needs and developments, plans will be subject to periodic review.

**Participation of the private sector**

Provision of investment channels for the development of infrastructure is an important issue, especially in view of the limited financial resources available. The financing gap has narrowed relatively over the past few years, due to improved oil markets and high oil prices. However, oil markets are characterised by instability. Hence, total dependence on the resources of the state budget should be avoided. The gap that may arise from decreasing public funding can be bridged through providing investment opportunities to the private sector and liberalizing transport markets and promoting competition within them. If the restructuring programme and privatization of all modes of transport is aimed at upgrading efficiency and improving productivity, the corollary is to enhance private-sector participation and commercial operation of the various facilities, so as to achieve financial independence, taking into account the social dimension in the provision of public transport services.

### 31.3.2 Transport of Goods and Trade Facilitation

**Providing logistics services for multimodal transport**

Globalization and expansion of trade have led to a growing interest in multimodal transport. Moreover, mergers of global shipping companies were stepped up and the geographical scope of their services broadened, leading them to become global networks of transport services. Furthermore, operators of transport facilities enhanced efficiency of their operations. These developments are expected to contribute to improving the management of global transport networks.
and increasing demand for their services.

Keeping pace with these developments calls for developing a national system of integrated multimodal transport, capable of integration with the global transport system. This can be achieved by continuing to raise the capabilities of national ports, providing them with communications and information exchange systems that improve the flow of goods. Ports should also be able to provide distribution, storage and transfer of goods and services. In this regard, use of multimodal transport contributes to facilitating and speeding movement of goods from source to final destination. For example, use of the railway network for long-distance transport over land, in combination with port services and with medium-to-short distance road transport will greatly enhance efficiency of the movement of goods.

- **Development of regulatory frameworks**

Expansion of the railway network services and their operation on a commercial basis are expected to create new challenges, especially for competing modes of transport. Thus, there is a need for further efforts to revise and develop the rules and regulations, in order to incorporate professional proficiency requirements, in addition to safety and environmental conservation standards. Furthermore, regulations to ensure effective and fair competition among various modes of transport should be developed, in addition to providing transport services to all regions.

- **Facilitation of global trade**

The future development in the Kingdom’s foreign trade will be affected by the smoothness of crossing international borders, whether by road or by the rail network that will be launched in the future. To meet this challenge, there is a need to strengthen the capacity of customs services and facilitate customs procedures to ensure that goods flow in accordance with the requirements of integration with global markets and competing in them.
In view of the growing importance of international road transport, which provides viable opportunities for trucking companies, national regulations should be reviewed to ensure compliance with international standards, treaties and multilateral conventions related to transport services, such as the conventions on vehicle safety, handling hazardous materials, customs procedures and transit transport. Moreover, the possibility of creating a national association for providers of shipping services and another for operators and providers of trucking services should be studied. Such national societies would participate in formulating national and international standards and regulations, and benefit from the support provided by international organizations, which includes skills development and efficiency improvement. National societies would also contribute to implementation of international treaties, such as the customs treaty for transit.

31.3.3 Passenger Transport

Population growth and concentration in major cities have led to escalating congestion on intra-city roads, since the private car remains the main travel mode within cities. Studies have shown that building and operating high-level public transport systems and operating them on a purely commercial basis may not be economically feasible, and would require partial subsidisation. Yet, the indirect social benefits of efficient transport systems in cities are great, especially if environmental, health and accident reduction implications are taken into account. Thus, success of intra-city public transport requires coordination among the agencies concerned, such as those responsible for traffic management, car parks management, and urban planning.

31.3.4 Transport Safety

The Kingdom has an advanced road network, both in terms of coverage and quality. However, growth of movement of goods and passengers, along with exclusive use of private cars in cities led to high rates of traffic accidents, with the resulting loss of life, and health and material damage to individuals and society.
Despite the actions and measures taken to improve safety, the high rate of accidents calls for developing the road safety system, taking into account all aspects, including: condition of roads, density of traffic, awareness and behaviour of drivers, extent of abidance by traffic rules, efficient implementation of traffic regulations, and conditions of vehicles.

In this context, it is imperative to develop coordination among all agencies involved in the development of transport infrastructure, traffic management and organization, and vehicle licensing and inspection; in addition to raising awareness among drivers and pedestrians, and applying deterrent penalties.

### 31.3.5 Protection of the Environment

In view of the high congestion on intra-city roads over recent years, car exhaust emissions have become one of the major sources of pollution, and hence a threat to public health, in the cities. Reduction of emissions is possible through adopting number of policies including new environmentally effective regulations for import of vehicles, developing procedures and raising its standards of periodic inspection of vehicles, and developing related environmental protection systems.

### 31.4 DEMAND FORECASTS

Demand forecasts are based on a number of macro and micro indicators, the most important of which are: growth of GDP and spatial distribution of sectoral economic activities, demographic shifts, urban development, expected developments in income and consumption, and regional and global economic outlook.

#### 31.4.1 Land Based Transport

The total number of trips over land is expected to rise from 303 million trips in 2009 to about 365 million trips in 2014, an average annual growth rate of 3.8%. The expected growth is due to the increase of the number of private-car trips, from about 271 million to about 325.5
million trips, an average annual growth rate of 3.7%, and the increase of the number of bus trips from about 14 million to about 16 million trips, an average annual growth rate of 2.7%. In addition, the number of train trips is expected to increase from about 18 million to about 23.5 million trips, an annual average growth rate of 5.2% (Table 31.3).

<table>
<thead>
<tr>
<th>Description</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Average Annual Growth Rate under Plan (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of private car trips (million)</td>
<td>270.8</td>
<td>279.5</td>
<td>290.4</td>
<td>301.6</td>
<td>313.3</td>
<td>325.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Number of bus-trips (million)</td>
<td>13.9</td>
<td>14.2</td>
<td>14.6</td>
<td>15.0</td>
<td>15.4</td>
<td>15.9</td>
<td>2.7</td>
</tr>
<tr>
<td>Number of train-trips (million)</td>
<td>18.2</td>
<td>20.2</td>
<td>21.0</td>
<td>21.8</td>
<td>22.7</td>
<td>23.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Total number of land-transport trips (million)</td>
<td>302.9</td>
<td>313.9</td>
<td>326.0</td>
<td>338.4</td>
<td>351.4</td>
<td>364.9</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: Ministry of Economy and Planning.

### 31.4.2 Railways

The projected rise in the intensity of train trips under the Ninth Development Plan is expected to be due to the introduction of new railway lines into service towards the middle of the Plan (Table 31.3). In view of the expected growth rates of the various transport modes, the share of private vehicles and buses in total land based trips is expected to decline from 89.4% and 4.6% by the end of the Eighth Plan to about 89.2% and 4.4%, respectively, under the Ninth Development Plan. In contrast, the share of train trips is expected to go up from 6.0% to about 6.4%, while the growth rate of inter-city passenger transport on public buses will stabilize. In view of continued absence of suitable transport alternatives within cities, and distribution
of production and consumption centres in major urban areas, private-car trips are expected to remain the preferred means of transport in the near future.

Since completion dates of expansions of some parts of the rail network are planning dates, demand forecasts remain preliminary. Under the Ninth Development Plan, the number of railway passengers is expected to be about 10.8 million, of whom about 7.7 million will be transported by existing lines, and about 2.5 million by the Makkah-Madinah line. The volume of freight transported by railways is expected to be about 57 million tonnes of goods and materials, of which about 16.4 million tonnes would be transported by existing lines, while the north-south line is expected to transport about 38.6 million tonnes of metallurgical products (Table 31.4).

### Table 31.4
**Forecast of Railway Activity by Major Route**
**Ninth Development Plan**

<table>
<thead>
<tr>
<th>Description</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Existing lines</strong></td>
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<tr>
<td>Number of passengers (million)</td>
<td>1.36</td>
<td>1.45</td>
<td>1.54</td>
<td>1.63</td>
<td>1.73</td>
<td>7.71</td>
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<tr>
<td>Freight (million tonnes)</td>
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<td>3.26</td>
<td>3.39</td>
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<td><strong>North-South Line</strong></td>
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<td>Number of passengers (million)</td>
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<td>0.00</td>
<td>0.13</td>
<td>0.14</td>
<td>0.15</td>
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<tr>
<td>Freight (million tonnes)</td>
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<td>9.70</td>
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<td>38.56</td>
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<tr>
<td>Number of passengers (million)</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.11</td>
<td>0.13</td>
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<tr>
<td>Freight (million tonnes)</td>
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<td>0.00</td>
<td>0.42</td>
<td>0.51</td>
<td>0.93</td>
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<td><strong>Makkah-Madinah Line</strong></td>
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<td>0.00</td>
<td>1.11</td>
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<tr>
<td>Freight (million tonnes)</td>
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<td>0.00</td>
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<td>0.51</td>
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<tr>
<td><strong>Total</strong></td>
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</tr>
<tr>
<td>Number of passengers (million)</td>
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<td>1.45</td>
<td>1.67</td>
<td>2.99</td>
<td>3.37</td>
<td>10.84</td>
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<tr>
<td>Freight (million tonnes)</td>
<td>7.49</td>
<td>8.81</td>
<td>11.69</td>
<td>13.93</td>
<td>14.88</td>
<td>56.80</td>
</tr>
</tbody>
</table>

*Source: Ministry of Economy and Planning.*
31.4.3 Marine Transport

The total volume of cargo handling is expected to rise from 141 million tonnes in 2009 to about 197 million tonnes in 2014 (Figure 31.6), an average annual growth rate of 6.9%. Jeddah Islamic Port and King Abdul-Aziz Port in Dammam are expected to continue playing their principal role.

![Figure 31.6](image)

**Figure 31.6**
Forecasts of Port Activity (Cargo Handling)
Ninth Development Plan

Source: Ministry of Economy and Planning, Saudi Ports Authority.

31.4.4 Air Transport

During the Ninth Development Plan, the total number of international and domestic airline passengers is expected to increase at an average annual growth rate of 4.8%; 4.7% for international airlines passengers and 4.9% for domestic airlines passengers (Table 31.5). The total volume of air cargo is expected to rise at an average annual growth rate of 1.7%, the bulk of which (96%) will be on international flights, and the volume of cargo on domestic flights is expected to decrease at an annual rate of 0.4%.
## Table 31.5
### Air Traffic Forecasts
#### Ninth Development Plan

<table>
<thead>
<tr>
<th>Description</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Total</th>
<th>Average Annual Growth Rate under Plan (%)</th>
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<tr>
<td><strong>Passenger Transport</strong></td>
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<tr>
<td>Number of international passengers (million)</td>
<td>36.1</td>
<td>37.8</td>
<td>39.6</td>
<td>41.5</td>
<td>43.5</td>
<td>45.6</td>
<td>4.7</td>
</tr>
<tr>
<td>Number of domestic passengers (million)</td>
<td>9.3</td>
<td>9.8</td>
<td>10.2</td>
<td>10.7</td>
<td>11.2</td>
<td>11.8</td>
<td>4.9</td>
</tr>
<tr>
<td>Total passengers (million)</td>
<td>45.4</td>
<td>47.6</td>
<td>49.8</td>
<td>52.2</td>
<td>54.7</td>
<td>57.4</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>Cargo Transport</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Volume of international cargo (thousand tonnes)</td>
<td>517.1</td>
<td>526.1</td>
<td>535.2</td>
<td>544.4</td>
<td>553.9</td>
<td>563.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Volume of domestic cargo (thousand tonnes)</td>
<td>22.5</td>
<td>22.4</td>
<td>22.3</td>
<td>22.2</td>
<td>22.1</td>
<td>22.0</td>
<td>-0.4</td>
</tr>
<tr>
<td>Total cargo (thousand tonnes)</td>
<td>539.6</td>
<td>548.5</td>
<td>557.5</td>
<td>566.6</td>
<td>576.0</td>
<td>585.9</td>
<td>1.7</td>
</tr>
</tbody>
</table>

*Source: Ministry of Economy and Planning.*

### 31.5 DEVELOPMENT STRATEGY

#### 31.5.1 Future vision

Providing an integrated transport sector comprising all transport means that would meet future needs, be characterized by safety, efficiency and technological advancement, and contribute to economic development and enhance global competitiveness of national economy; all in a healthy, safe environment for all members of society.

#### 31.5.2 Objectives

- Providing highly efficient and effective transport services.
- Supporting economic and social development.
- Raising safety standards of transport.
- Protecting the environment from transport emissions.
- Supporting national security.
Providing transport services for Hajj (pilgrimage) and Umrah.

31.5.3 Policies

- Improving performance of agencies providing transport services.
- Strengthening private-sector participation in various transport services.
- Achieving a balance between prices and costs of transport services.
- Providing efficient transport services at a reasonable cost for all economic and social activities.
- Supporting balanced regional development, by facilitating transport of people and goods.
- Strengthening regional and international cooperation to promote trade and investment activities and movement of individuals.
- Ensuring the safety of all modes of transport.
- Developing regulations and procedures and applying them efficiently.
- Developing traffic safety and road safety information databases.
- Reducing pollution by various modes of transport, through developing inspection rules and other measures.
- Reducing the use of substances harmful to the environment.
- Conserving and protecting environmental resources.
- Developing environmental awareness among all concerned parties, such as transport and maintenance companies.
- Ensuring that the transport system meets the requirements of national defence and security.
- Ensuring that the transport system meets the requirements of disaster management.
- Enhancing the efficiency of transport systems for Hajj (pilgrimage) and Umrah.
• Improving safety conditions in the transport of pilgrims and Umrah performers.

31.5.4 Targets

- Constructing the Ras Al-Zour port.
- Completing the development of King Abdul-Aziz International Airport in Jeddah.
- Developing Prince Mohammed bin Abdul-Aziz Airport in Madinah.
- Completing the expansion of the railway network:
  - North-South Line.
  - Al Haramain High Speed Rail.
  - Land Bridge Project.

31.6 FINANCIAL REQUIREMENTS

The financial allocations for government agencies in the transport sector (Ministry of Transport, Saudi Ports Authority, Saudi Railways Organization, and General Authority for Civil Aviation) under the Ninth Development Plan are a total of SR107.8 billion.