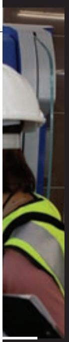


Transport

SOUTH AFRICA
YEARBOOK
2011/12



Transport 23

Transport and its related services are catalysts for economic growth, and direct and indirect job creation in South Africa. The provision of affordable, safe and reliable transportation of goods and people is critical to the development of the country.

Government boosted transport infrastructure spending to R66 billion in the 2011/12 financial year and is expected to raise it to R80 billion by 2013/14. The improvements are spread across the country, with urban and rural parts expected to benefit from the creation of jobs and tourism opportunities.

Over the next three years, an additional R2,5 billion will be allocated to municipalities for public transport systems and infrastructure.

In 2011, additional funds were allocated to the Passenger Rail Agency of South Africa (Prasa), for replacing signalling infrastructure and refurbishing rail coaches. About 8 600 new coaches (equal to 718 new train sets) will be purchased over the next three years.

In total, R30,2 billion will be spent on improving the passenger rail system over the next three years.

Policy and initiatives

Road Transport Management System (RTMS)

The RTMS is an industry-led voluntary self-regulation scheme that encourages consignees, consignors and road transporters to implement a management system that preserves road infrastructure, improves road safety and increases productivity. The system's key components are load optimisation, driver wellness, vehicle maintenance and productivity. It is designed to show transport companies how to take greater corporate responsibility for road safety.

A national RTMS steering committee is responsible for the promotion and administration of RTMS in South Africa. It comprises individuals representing major industries and aligned stakeholders within the country.

National Transport Master Plan (Natmap)

The Department of Transport presented Parliament with the R750-million Natmap in 2010, which includes linking Johannesburg to Durban and Polokwane via rapid train networks.

The plan includes expanding the Port of Saldanha, doubling the Huguenot Tunnel outside Paarl and expanding the Port of Cape Town.

Part of Natmap is to form partnerships with the private sector to help fund the projects and lower the burden on taxpayers.

Cabinet initiated the Natmap in 2007 to develop and establish a multimodal transport system to meet South Africa's needs up to 2050.

Natmap aims to:

- facilitate long-term and sustainable socio-economic growth
- promote comprehensive integrated development planning
- act as the infrastructure implementation/action plan of macro-scale projects for the whole country.

Natmap's goals include:

- maximising the use of existing infrastructure facilities
- developing future infrastructure facilities
- developing an up-to-date and accurate central land-use/transportation data bank.

Public Transport Strategy (PTS) and Action Plan (2007 – 2020)

Cabinet approved the PTS and Action Plan 2007 – 2020 in March 2007.

The PTS, which comprises a multi-billion rand transport infrastructure plan, was expected to reshape public transport travel in South Africa entirely.

The strategy articulates a vision to shift public-transport service delivery away from operator-controlled, commuter-based, intermodal routes to user-oriented, publicly controlled, fully integrated, mass rapid public-transport networks.

This includes transforming the bus and rail services into a public transport system integrated with recapitalised taxi services.

The key areas of the strategy consist of:

- safe and secure operation monitoring by intelligent transport system-control centres

> In June 2011, the Minister of Transport, Mr Sibusiso Ndebele, hosted the Department of Transport's Investors Conference. In contributing towards economic empowerment and the social well-being of South Africans, the department is continuously seeking opportunities for investment in transport infrastructure. The main purpose was to attract local and foreign investors to major transport infrastructure and flagship projects in the rail, road, maritime and aviation sectors.

- a car-use competitive public-transport option, which enables strict peak-period car-use management
- electronic fare integration and single ticketing when making transfers
- an integrated feeder service, including walking, cycling, bus and taxi networks.

Following Cabinet's approval of the PTS, the Department of Transport committed to huge investments in the development of public-transport infrastructure and services. Over the past six years, the department invested over R48 billion in the Bus Rapid Transit (BRT) System, comprising rail, bus and taxis. The department spent over R9 billion rolling out integrated public-transport networks in major cities.

Electronic National Traffic Information System (eNaTIS)

The eNaTIS provides for the registration and licensing of vehicles. It manages and records applications for and authorisation of driver's and learner's licences.

It is also a law-enforcement tool used to ensure that the details of stolen vehicles are circulated and to prevent irregular and fraudulent re-registration of such vehicles.

The system delineates the life cycle of a vehicle from the factory floor to the scrap yard.

In February 2011, South Africa extended the use of eNaTIS to Namibia to help reduce car theft and cross-border crimes between the two countries.

The two countries signed a memorandum of understanding (MoU) to formalise the agreement. Authorities from the two countries are able to access driver and vehicle details. This will also prevent stolen vehicles being registered in both countries and drivers can be held accountable for fines issued for traffic violations across the border.

The Namibian authorities were responsible for financing the system in their country. Plans are underway to have the system implemented in all Southern African Development Community (SADC) countries.

By October 2011, South Africa's live vehicle population was 10 156 186, according to eNaTIS.

Black Economic Empowerment (BEE)

The Draft Transport Charter was gazetted in August 2009 in terms of the Broad-Based BEE (BBBEE) Act, 2003 (Act 53 of 2003). The gazetting of the transport sector codes means that codes for eight subsectors, excluding the foreign airline component of the aviation subsector, are binding across the spectrum of the national transport industry.

The integrated transport sector codes will come up for review every five years.

Among other areas of development, the transport sector codes commit to:

- training and skills development to increase the number of black pilots in the aviation industry, as per the Aviation Subsector Code
- achieving a black-ownership target of 35% in the Bus Commuter Service Subsector Code within five years
- empowering workers and pursuing worker rights in the taxi industry, and equipping these individuals with the requisite skills to take up management positions
- ensuring that the taxi industry provides commuters with reliable, safe, affordable, efficient and quality public-transport services.

Non-motorised transport (NMT)

The promotion of NMT primarily aims to increase transport mobility and accessibility, mainly in rural areas.

The Department of Transport has broadened its Shova Kalula ("Pedal Easy") Project into a more comprehensive NMT project that incorporates, among other things, cycling and animal-drawn carts. The project was first launched in 2001 and introduced in Limpopo in 2010.

The project forms part of government's Programme of Action and is expected to contribute to its anti-poverty strategy and second-economy interventions.

It is believed that these initiatives improve the mobility of and access to economic opportunities by rural communities.

In April 2011, 235 pupils who had to walk long distances to get to school, received new bicycles with which to ride to school. The pupils, who

With the transport sector reportedly being the fastest-growing emitter of carbon emissions in South Africa, the impact of transport on the environment was top of the agenda at the Southern African Transport Conference, which took place during July 2011 in Pretoria.

With the theme *Africa on the Move*, transport experts from the private and public sectors tackled critical transport issues on the African continent through a series of action-based plenary sessions, panel discussions and workshops.

In May 2011, the first global Decade of Action for Road Safety 2011 – 2020 was launched. Governments all over the world committed to take new steps to save lives on the roads.

The project seeks to prevent road-traffic deaths and injuries, which experts project will take the lives of 1,9 million people annually by 2020. The global plan's activities could save five million lives, prevent 50 million serious injuries and lead to US$5 trillion in savings over the course of the decade.

Road-traffic injuries have become the leading killer of young people aged between 15 and 29. Almost 1,3 million people die each year on the world's roads, making this the ninth leading cause of death globally. In addition to these deaths, road crashes cause between 20 million and 50 million non-fatal injuries every year.

Major initiatives in South Africa include:

- finalising and implementing South Africa's National Road Safety Strategy and Action Plan for 2011 – 2020
- each province, district municipality and local municipality having to report every month on the number of road accidents occurring in their area, what the causal factors are and how these are being addressed
- almost nine million vehicles and drivers were checked, more than 3,5 million fines issued for various traffic offences, 13 877 drunk drivers arrested and 34 467 unroadworthy vehicles discontinued from use from 1 October 2010 to 30 April 2011
- no less than 10 000 drivers being screened every month for drinking and driving as of May 2011
- South Africa's first National Traffic Intervention Unit being deployed to high-accident frequency locations and traffic hotspots across the country in April 2011
- amendments to the National Road Traffic Act, 1996 (Act 93 of 1996)
- the draft amendment to the Administrative Adjudication of Road Traffic Offences (AARTO) Act, 1998 (Act 46 of 1998), and the Points Demerit System AARTO Regulations being published in the *Government Gazette* on 15 April 2011 for comment
- the South African Police Service's (SAPS) Division: Visible Policing developing the 10-year Road Crime Crash Combating Strategy for the *Make Roads Safe* Campaign
- embarking on a massive road-safety education and communication campaign
- strengthening partnerships between the departments of transport, health, social development and education and the SAPS as road accidents place unnecessary strain on hospitals and child-support grants
- making progress towards ensuring that road-safety education forms part of the life skills curriculum at schools, and towards ensuring that every Grade 11 learner will have a learner's licence and every 18-year-old a driver's licence
- working on a programme to encourage youth from disadvantaged communities to obtain their driver's licences, by obtaining private-sector sponsorship for the payment of their driving tuition
- the provision of a more secure, tamper-proof driving licence card.

used to walked more than 3 km to schools within the Aganang municipal area near Polokwane, received the bicycles as part of the Shova Kalula Project.

The department aims to distribute a million bicycles countrywide by 2015, in line with the resolution and action plan of the African Ministers' Transport Summit held in Addis Ababa, Ethiopia, in 2005.

The Department of Transport expressed interest in establishing a local bicycle-manufacturing plant to produce bicycles for the project. The Shova Kalula Project also incorporates micro-businesses, which sell, repair and maintain bicycles to ensure the sustainability of the project.

New Partnership for Africa's Development (Nepad)

From a transport point of view, key issues in creating an effectively coordinated African response to global market challenges are market access, mobility and systems integration.

The Department of Transport is contributing actively to the practical realisation of Nepad and the SADC development goals in several major areas, by promoting:

- efficient and effective maritime transport services
- passenger rail-systems integration
- road-systems development and infrastructure maintenance.

With a combined population of 260 million and a regional market worth over US$430 billion, southern Africa has vast potential for socio-economic development. To achieve this, the SADC member states have to work towards developing an efficient, seamless and cost-effective cross-border transport network.

At a 2007 summit in Zambia, the SADC heads of state and government hinted that a lack of funds was one of the reasons for transport infrastructure deteriorating. They have since directed the SADC Secretariat to work out a regional Master Plan for Infrastructure Development to coordinate and harmonise all regional infrastructure developments.

The five priority sectors for regional infrastructure development are:

- transport
- energy
- telecommunications

During 2010/11, the South African National Roads Agency Limited (Sanral) supported 1 084 black-owned small, medium and micro-enterprises. Sanral trained 15 109 people in road-building projects, of whom 4 023 were women and created about 56 298 jobs across South Africa.

- water infrastructure
- tourism.

Public entities and other agencies

The Department of Transport has established different bodies to take over certain elements of government's operational activities. They include the South African National Roads Agency Limited (Sanral), the South African Maritime Safety Authority (Samsa), the Cross-Border Road Transport Agency (CBRTA), the Transport Appeal Tribunal, the Road Traffic Management Corporation (RTMC), the Railway Safety Regulator (RSR), the South African Civil Aviation Authority (SACAA), the Road Accident Fund (RAF), Air Traffic Navigation Services (ATNS) and Airports Company South Africa (Acsa).

South African National Roads Agency Limited

Sanral reports to the Department of Transport and is responsible for the design, construction, management and maintenance of South Africa's national road network, including toll and non-toll roads. Sanral manages the following: 1 573 km of dual carriageway; 550 km of four-lane undivided roads; 14 047 km of two-lane, single roads; 1 288 km of toll roads; and 1 832 km of state toll roads.

Sanral's responsibilities are to:

- strategically plan, design, construct, operate, rehabilitate and maintain South Africa's national roads to support socio-economic development
- generate revenue from the development and management of its assets
- undertake research and development to enhance the quality of life of all South Africans, with particular emphasis on their social and economic well-being
- advise the Minister of Transport on matters relating to South Africa's roads
- finance, plan, construct, provide, operate and maintain roads in neighbouring countries at the request of the Minister of Transport and those countries.

Sanral has deployed intelligent transport systems (ITS) in the metropolitan areas of Johannesburg, Tshwane and Ekurhuleni in Gauteng; eThekwini and Pietermaritzburg in KwaZulu-Natal; and Cape Town in the Western Cape.

An ITS allows for the collection of real-time traffic information, which is conveyed to a transport-management centre. The centre processes the information and uses the data to manage traffic flow, and to disseminate important information to road users. The ITS reduces congestion and removes some of the uncertainty associated with travel conditions.

Sanral's strategy of pursuing public-private partnerships (PPPs) has rendered substantial dividends. This policy is based on the reality that there are no "free" roads: they are either funded through general taxes or user fees.

By applying the "user-pay" principle, a targeted portion of the national road network can be developed and expanded.

PPPs with Sanral's concessionaires – the N3 Toll Concession (Pty) Ltd (N3TC), the N1/N4 Bakwena Platinum Concession Consortium (BPCC) and the N4 Trans African Concessions (TRAC) – allow Sanral to reduce the cost of transport, provide a safer and more reliable road infrastructure and build the economy of South Africa and its neighbours. By March 2011, the concessionaires had financed capital work to the value of R5 159,7 million.

Road Traffic Management Corporation

The RTMC was established in terms of the RTMC Act, 1999 (Act 20 of 1999), and became operational in September 2005. It is responsible for coordinating road-traffic management across the three spheres of government. The core mandate of the corporation is to improve traffic-law compliance and reduce road fatalities.

In line with the United Nations' (UN) millennium development goals (MDGs) and the Moscow Declaration on Road Safety, which calls for a Decade of Action for Road Safety, the corporation has

Provincial road-safety councils will be responsible for implementing road-safety programmes at local, district and provincial level and for advising government on road-safety issues that affect communities. This is recognised as a critical step towards ensuring safer roads in the country.

set itself goals over the medium term to reduce the road fatality rate by 25%. This objective will be achieved through, among other things, enforcing driver and vehicle fitness requirements; coordinating effective prosecution of moving traffic violations; and implementing the national traffic law-enforcement code. The corporation has also reviewed its strategic focus and developed a five-year strategic plan, which aims to improve financial management.

The RTMC continues with its zero-tolerance approach against traffic offenders.

South African Maritime Safety Authority

In line with its objectives, as stated in the Samsa Act, 1998 (Act 5 of 1998), the organisation's primary areas of responsibility include:

- participating in the development and implementation of national and international maritime safety and marine environment-protection standards
- enforcing technical and operational standards for all shipping operations in South African waters and for South African ships anywhere, to promote responsible operations in terms of seaworthiness, safety and pollution prevention
- enforcing training standards and the competency of seafarers
- managing the national capability to respond to marine-pollution incidents and other maritime emergencies
- operating the Maritime Rescue Coordination Centre (MRCC) to coordinate maritime assistance services, and to detect and coordinate the location and rescue of people in maritime distress situations throughout the internationally agreed South African search-and-rescue region
- overseeing the provision of maritime distress and safety communications services to discharge South Africa's responsibilities under the Global Maritime Distress and Safety System
- administering South Africa's voluntary ship-reporting system for identifying and tracking ships at sea for safety purposes and to provide a ships' database for responding to marine emergencies
- investigating maritime casualties.

Funding comes from, among other sources, levies on ships calling at South African ports, direct user charges and government service fees.

In September 2011, the South African Maritime Safety Authority (Samsa) observed World Maritime Day in Richards Bay, KwaZulu-Natal, to focus attention on the importance of shipping safety, maritime security and clean seas.

The 2011 theme, *Piracy – Orchestrating the Response,* was chosen as part of efforts to safeguard human life at sea. To this end, the objectives pursued during 2011 were:

- increasing pressure at political level to secure the immediate release of all hostages being held by pirates
- reviewing and improving guidance to the industry and promoting full compliance by ships with all recommended preventive, evasive and defensive measures
- promoting greater levels of support from navies
- promoting anti-piracy coordination and cooperation between and among states, regions and organisations
- building the capacity of states in piracy-infested regions of the world, to deter, interdict and bring to justice those who commit acts of piracy and armed robbery against ships
- providing care for those attacked or hijacked by pirates and for their families.

Government, through the Department of Transport with the support of Samsa, has through the years intensified its efforts to fight piracy. Samsa is a custodian of some of the best technologies in the world that monitor the movement of ships bound for South Africa. The Long-Range Identification Tracking System technology, housed at the Samsa Centre for Sea Watch and Response in Cape Town, plays an important role in the fight against piracy.

Samsa's activities are centred on the following business centres:

- ships and boating
- seafarers
- sea watch and response
- industry development and excellence
- corporate affairs
- policy and regulatory
- Office of the Chief Examiner.

The Merchant Shipping (Safe Containers Convention) Act, 2011 (Act 10 of 2011), helps South Africa to carry out its obligation to maintain the highest standards with regard to the safe carriage of containers over the country's waters. A major part of world trade depends on South Africa's coastal waters. About 98% of the country's trade is seaborne.

The Act gives effect to the International Convention for Safe Containers, which came into force in December 1977, as adopted by countries belonging to the International Maritime Organisation.

In September 2011, Samsa launched a study aimed at contributing to the process of skills development and empowerment in the maritime sector. The Maritime Skills Development Study, in partnership with the Human Resource Develop-

In May 2011, the Minister of Public Enterprises, Mr Malusi Gigaba, announced that South Africa was to start building locomotives domestically. Transnet plans to spend R110 billion on expanding ports and railways in the next five years.

ment Council South Africa, will help to highlight the skills gap within the broader maritime sector and provide further insights into pivotal interventions needed by the industry.

The study, which was also supported by the Department of Transport, called on training institutions, government and the private sector to work together to ensure that South Africans are armed with skills that enable them to participate in the maritime sector.

It provides for measures that will be put in place to promote growth and development in the five subsectors in the maritime industry, namely: shipping; marine resources; marine tourism and leisure; marine manufacturing and construction; and commercial support, business services and public interests.

Cross-Border Road Transport Agency

The CBRTA was established under the Cross-Border Road Transport Act, 1998 (Act 4 of 1998). The Act's responsibilities include regulateing cross-border road transport by providing unsurpassed service in advising, facilitating and law enforcement.

The CBRTA is playing a major role in promoting economic development within the SADC region by facilitating access to cross-border markets and improving the regulatory environment for trade and transport within the SADC region.

Cross-border road transport is regulated through multi- and bilateral road-transport agreements, concluded with various SADC member states and in line with the stipulations of the SADC Protocol on Transport, Communications and Meteorology.

In October 2011, transport industry stakeholders from the SADC region as well as experts from organisations such as the World Bank, the SADC Secretariat on Transport and the United States Agency for International Development Southern Africa participated in a cross-border road-transport indaba.

With the theme, *Changing Gears – Transcending Borders*, the aim of the indaba was to promote the role that the CBRTA and cross-border road transport play in promoting economic development within the SADC region. The indaba further aimed to create a platform for discussion and debate in moving the industry to new levels of operational efficiencies.

Road Accident Fund

The RAF is a public entity that compensates victims of motor-vehicle accidents for bodily injuries and/or loss of financial support caused by the death of a breadwinner. The rights for compensation are prescribed by the RAF Act, 1996 (Act 56 of 1996).

It derives its income from tax levied on petrol and diesel sold in South Africa.

The role of the RAF is to reintegrate victims of road accidents into society from a health and economic perspective and protect wrongdoers and their families from financial ruin.

The RAF provides compensation for loss of earnings and support, general damage, and medical and funeral costs to victims of road accidents caused by the negligent or wrongful driving of another road user.

Since the promulgation of the RAF Amendment Act, 2005 (Act 19 of 2005), compensation has been limited to earnings and loss of support.

Compensation for pain and suffering is available only to the seriously injured.

Due to the delayed impact of legislation, the amendments have implications for the personal insurance required by road users as a form of discretionary social security protection.

In April 2011, the S'hamba Sonke ("Moving Together") roads infrastructure upgrade and maintenance programme was launched in Durban, KwaZulu-Natal.

Through the S'hamba Sonke Project, local people are recruited to repair damaged secondary, district and municipal roads.

The Department of Transport has set aside R22 billion over the next three years to repair potholes on South African roads. An amount of R6,4 billion was spent on this initiative across the country in 2011/12. The programme created about 70 000 job opportunities in 2011/12.

In partnership with all provinces, the S'hamba Sonke Project improved access to schools, clinics and other social and economic opportunities by upgrading the secondary roads network and repairing roads damaged by potholes throughout the country.

The project will be in line with the department's Zibambele initiative (which means "doing it ourselves"), which is routine road maintenance using labour-intensive methods in which a family or household is contracted through a provincial department to maintain a specific length of road on a part-time basis.

The fund has extended its geographic footprint to make it more accessible to the public. In 2010/11, the strategy focused on piloting and testing new business processes, supporting the Department of Transport in transforming the inherently flawed fault-based legislation and reducing the backlog of claims through improved efficiencies.

Over the Medium-Term Expenditure Framework, the focus will be on pursuing legislative amendments, achieving operational efficiency and effectiveness, and seeking sustainable funding.

The fund is setting up an in-house litigation department to deal with magistrates' court matters, which is expected to save about R1 billion.

The implementation of the RAF Amendment Act, 2005 was expected to lead to a decrease in general-damage claims, which are estimated to comprise 25% to 33% of total pay-outs.

South African Civil Aviation Authority

In April 2011, the second report card on infrastructure, released by the South African Institution of Civil Engineering, stated that the aviation infrastructure was the country's best performing infrastructure.

The SACAA was established in October 1998, following the enactment of the SACAA Act, 1998 (Act 40 of 1998). The Act provided for the establishment of a stand-alone authority charged with promoting, regulating and enforcing civil-aviation safety and security.

The creation of the SACAA reflected government's priorities of policy development, economic restructuring, addressing social inequalities and reducing the burden on the taxpayer by expanding the application of the "user-pays" system. The setting up of a self-funding authority has resulted in the SACAA becoming more accessible and accountable to its stakeholders.

Setting up a stand-alone civil-aviation regulatory authority was also in line with international trends in the aviation world.

The SACAA's vision is to be a world-class enabler of a safe, secure and sustainable aviation industry. Its mission is to:

- maintain a safe, secure and sustainable civil-aviation environment while adhering to international standards
- regulate and oversee the functioning and development of the industry in an efficient, cost-effective and customer-friendly manner
- promote transformation and development.

The primary purpose of the SACAA is to promote, regulate and support high levels of safety throughout the country's civil-aviation industry. The organisation's core activities include, among other things, aviation safety and security and oversight in terms of operations, aircraft, personnel, airports and airspace.

The SACAA is responsible for regulating all individuals or organisations involved in civil aviation in South Africa. The SACAA's stakeholders include:

- airports
- aircraft owners and operators
- aircraft designers and manufacturers
- aircraft maintenance organisations
- air cargo
- airline operators
- licensed aviation personnel
- aviation training organisations
- air-traffic service units
- air cargo operators.

South Africa hosted the third Pan-African Aviation Training Coordination Conference in Cape Town in July 2011 under the auspices of the International Civil Aviation Organisation (ICAO).

The conference was attended by aviation experts representing the African continent and SADC region, and international aviation institutions from around the globe, including international member states and bodies such as the United Kingdom, the United States of America (USA), India, the African Civil Aviation Commission, the Airports Council International, the Agency for Air Navigation Safety in Africa and Madagascar and the ICAO.

The conference reviewed the implementation of the action plan adopted by the second conference, held in Cairo, Egypt, in June 2010.

Airports Company of South Africa

Acsa operates South Africa's nine principal airports, providing airlines with world-class, secure infrastructure.

The nine airports are:

- OR Tambo International in Gauteng
- Cape Town International in the Western Cape
- King Shaka International in KwaZulu-Natal

During Transport Month in October 2011, 6 336 unroadworthy public-transport and freight vehicles were taken off the roads, with the majority (1 821) being buses, mini-buses and trucks removed in Mpumalanga. This was part of the Department of Transport's National Rolling Enforcement Plan.

More than 46 402 fines were issued to public-transport and freight drivers, and 1 460 public-transport and truck drivers arrested, including 196 for drunk driving, 25 for excessive speed, eight for reckless and/or negligent driving, 877 for overloading, 73 for false documents and 281 for other offences.

From 31 August to 30 October 2011, as part of the department's pre-December holiday traffic law-enforcement operations, 623 469 public-transport vehicles were stopped and checked; 2 207 mini-buses, 885 buses and 1 699 trucks discontinued from use for being in an unroadworthy condition; 93 945 fines issued for various public-transport offences; more than 2 653 public-transport drivers arrested, including 371 for drunk driving; 1 947 for overloading; 91 for excessive speed; 28 for reckless and/or negligent driving; and 154 in connection with public-transport permits.

- Bloemfontein International in the Free State
- Port Elizabeth International in the Eastern Cape
- Upington International in the Northern Cape
- East London Airport in the Eastern Cape
- George Airport in the Western Cape
- Kimberley Airport in the Northern Cape.

Acsa handles more than 10 million departing passengers and 200 000 aircraft landings annually.

The airports handle over 98% of the country's commercial air traffic.

With South Africa focusing on economic growth, Acsa has done much to help ensure that the South African aviation industry maintains its upward trend, despite global market threats and uncertainty. A great deal of work has been done at the OR Tambo and Cape Town international airports in readiness for expected growth in the aviation industry.

The capacity of the old Durban International Airport was about five million passengers a year. In the first year of its operation, Durban's new King Shaka International Airport facilitated almost five million passengers.

Air Traffic Navigation Services

The ATNS is responsible for air-traffic control in approximately 10% of the world's airspace. Its services extend into the provision of important aeronautical information used for all flight-planning purposes as well as search-and-rescue coordination activities and the maintenance of a reliable navigation infrastructure.

ATNS operations include:

- aerodrome and aeronautical-information services and technical maintenance
- alert, search-and-rescue coordination services
- managing the flexible use of airspace through the Central Airspace Unit
- support for special events and special requirements such as test and demonstration flights
- implementing and maintaining a terrestrial-based navigational structure
- training of licensed air-traffic controllers and technical staff through the Aviation Training Academy (ATA).

The ATNS is the sole provider of air-traffic, navigation, training and associated services within South Africa.

In recent years, the ATNS has identified the need for high-technology aviation equipment to allow for the effective and cost-efficient training of air-traffic controllers. This culminated in the launch of the 3D aerodrome simulator in October 2011.

The ATNS trains air-traffic controllers from South Africa, Africa and the Africa-Indian Ocean area.

The ATNS entered into a partnership with Airways New Zealand to facilitate an aerodrome simulator skills and technology transfer. Under the partnership agreement, Airways New Zealand developed the software to fulfil the user requirements, while the ATNS supplied the hardware, which was manufactured and procured in South Africa.

The ATNS also acquired the enterprise licence that allows installation of additional 3D aerodrome simulators at other ATNS sites within South Africa to allow for additional training.

Knowledge transfer was also facilitated through the Aerodrome Simulator Project.

Transnet Limited

Transnet is a freight-transport and logistics company wholly owned by government. It comprises the following operating divisions:

- Transnet Freight Rail (TFR) – the freight rail division
- Transnet Rail Engineering – the rolling stock maintenance business
- Transnet Port Terminals – manages port and cargo terminal operations in the country's leading ports

In March 2011, Airports Company South Africa's OR Tambo International Airport was named the best airport in Africa at the 2011 World Airport Awards in Denmark. The awards are based on 11,38 million survey questionnaires completed by over 100 different nationalities of airline passengers in 2010/11, covering more than 240 airports across the globe.

The survey evaluates traveller experiences across 39 different airport service and product factors – from check-in, arrival and transfer through to departure at the gate.

OR Tambo International Airport was also acknowledged as one of the three most improved airports worldwide.

- Transnet Pipelines – the fuel and gas-pipeline business pumps; it also manages the storage of petroleum and gas products through its network of high-pressure, long-distance pipelines
- Transnet National Ports Authority (TNPA) – responsible for the safe, effective and efficient economic functioning of the national port system, which it manages in a landlord capacity.

Transnet's revenue increased to R38 billion in 2010/11.

Transnet projects that it will create over 5 000 jobs in the next five years. By June 2011, the entity employed 55 519 people, and estimated that the number would increase to 61 520 by 2016. This projected increase can be directly attributed to government's New Growth Path (NGP).

During 2010/11, capital investment included:

- acquiring of 58 19E dual-voltage locomotives, 34 Class 15E locomotives, two Class 43 GE diesel locomotives and 354 wagons for the Port Elizabeth manganese plant
- replacing 555 km rail, 292 km sleepers and screening 582 km of track
- upgrading 41 locomotives from Class 6E to Class 18E and converting 410 wagons from 48 t to 60 t
- delivery three tug boats (two in Durban and one in Richards Bay), a dredger and the bulk liquid berth in Richards Bay
- installating the Agriport Bulk Terminal with 80 000 t of storage capacity and rubber-tyred gantry cranes
- replacing Richards Bay's quayside fleet and ageing ship-to-shore cranes at Durban Container Terminal Pier and Port Elizabeth Container Terminal
- constructing a second state-of-the-art Phelophepa healthcare train with 18 coaches.

Road infrastructure

National roads

In terms of the National Roads Act, 1998, government is responsible for overall policy, while road-building and maintenance are the responsibility of Sanral.

The Department of Transport continues to improve the road network by ensuring that it is well maintained and safe. A new national roads plan was developed, acknowledging the importance of roads to the economy.

Between 2010 and 2015, R75 billion is to be used for road infrastructure, maintenance and upgrading; with an additional R3 billion budgeted for the Expanded Public Works Programme (EPWP) access roads, all of which are attempts by government to alleviate traffic congestion.

The department identified the lack of dedicated funding for road maintenance, poor asset management and capacity challenges in municipalities and provinces, and underinvestment in the maintenance of road infrastructure as the causes of poor road conditions. It plans to develop a ring-fencing mechanism by creating a fund to source additional funding for maintenance.

The provinces have made significant progress in job creation against a target of 68 000 jobs, namely: KwaZulu-Natal, 4 562; Mpumalanga, 3 845; North West, 2 120; Gauteng, 1 112; the Eastern Cape, 512; the Western Cape, 497; Northern Cape, 323; the Free State, 79; and Limpopo, 230.

As a result, the following road functions have been addressed countrywide:

- 510 988 m^2 road surface resealed
- 321 km road re-gravelled
- 182 629,69 m^2 blacktop patching
- 80 304 km blading.

With a recent study showing that potholes are costing motorists R50 billion in injury and vehicle

According to the National Association of Automobile Manufacturers of South Africa, vehicle sales grew by 18,9% year-on-year in October 2011, improving from 44 029 vehicles sold during October 2010 to reach 52 338 vehicles in October 2011.

Total new car sales during October 2011 at 36 826 units reflected an improvement of 6 076 new cars or an increase of 19,8% compared to the 30 750 new cars sold in October 2010.

The first-ever Taxi Industry Training Academy was launched in October 2011. The training academy is part of the South African National Taxi Council's (Santaco) new vision, known as the TR3 2020 Strategy, which seeks to transform the taxi industry and reinforce the taxi industry's commitment towards the Decade of Action for Road Safety 2011 – 2020 that aims to reduce the carnage on South Africa's roads.

Through Operation Hlokomela, Santaco seeks to improve driver and passenger safety as well as enhance customer care and responsible driving in the taxi industry.

repairs every year, the objectives of the S'hamba Sonke Programme are to, among other things, allocate a sizable amount of budget for pothole repairs on a district-by-district basis as well as the maintenance and upgrading of heavily trafficked rural transport corridors and to ensure access to public facilities.

Provincial roads

Provincial governments are responsible for planning, constructing and maintaining roads and bridges, except those falling under Sanral or local governments. The Department of Transport assists provincial and local governments to improve and develop the state of their roads.

Municipal roads

The construction and maintenance of most roads and streets within the municipal boundaries of cities and towns is the responsibility of the municipality concerned.

Toll roads

The toll-road network comprises about 19% (3 120 km) of the national road grid.

Some 1 832 km of these toll roads are managed by Sanral. Sanral will continue with the selective expansion of the toll road network.

About 1 288 km of the tolled sections of national roads have been concessioned to private companies to develop, operate and maintain.

During 2010/11, Sanral spent R738 million of its operating costs on 1 900 km of toll roads. Over the same period, capital expenditure on toll roads to strengthen and improve roads, and to build new facilities amounted to R7 billion.

The three concessioned routes are: the N1/N4 highway, which is operated by BPCC, between Pretoria and Bela Bela and between Pretoria and the Botswana border on the N4; the N3 between Heidelberg in Gauteng and Cedara in KwaZulu-Natal, which is operated by the N3TC; and the N4 East, Maputo Development Corridor, which is operated by TRAC.

Public transport

In terms of the Constitution, legislative and executive powers in respect of public transport are a provincial competency. National government, however, is responsible for policy-formulation, monitoring and strategic implementation. The Department of Transport continues to administer subsidies for buses and other subsidised forms of public transport.

The department identified public transport as a key legacy project for the 2010 FIFA World Cup™ and beyond. It included world-class airports, upgraded train stations, refurbished coaches and luxury buses, taxis and integrated rapid public-transport networks such as the BRT System.

Government invested more than R40 billion in public-transport infrastructure for the tournament.

Transport-infrastructure over the next few years is guaranteed to change the way South Africans travel, due to a multi-billion rand boost by government. Amounting to R66 billion in 2011/12 and rising to R80 billion by 2013/14, the improvements are set to create numerous jobs and tourism opportunities across the country.

This comes as transport-infrastructure developments have been recognised as being of world-class standard.

Johannesburg's Rea Vaya BRT System has been described as far better than that of New York by the Institute for Transportation and Development Planning in New York City. Rea Vaya has also won various international awards.

Rural transport

By August 2011, the Department of Transport and National Treasury were engaging in a rural transport grant as part of efforts to speed up improvements in the public transport system of the country's rural areas. Such a grant will also

The taxi industry has a turnover of more than R35 billion a year. It employs over 250 000 employees who are mainly lower and semi-skilled workers, consequently contributing to government's poverty-alleviation programmes.

In addition, the industry serves ancillary economic activities such as hawkers and other informal retailers, who rely on taxis for their livelihood. Some 283 100 taxis operate on South African roads, excluding informal taxis awaiting permits.

serve as a long-term commitment to the country's PTS as adopted by government.

The deep rural areas are still isolated from major road and rail routes. However, the Rural Transport Strategy, approved by Cabinet in December 2007, is promoting mobility in such areas.

Regarding the improvement of strategic roads and implementation of the Road Infrastructure Strategic Framework of South Africa, National Treasury and the Department of Transport have rolled out the provincial road maintenance grant of more than R22 billion.

Rural infrastructure contributes to job creation and improves the socio-economic needs of people in rural areas. It ensures access to schools, clinics and economic opportunities.

The Rural Access Improvement Programme is part of a comprehensive rural transport strategy for South Africa, which addresses challenges in rural development, such as:

- building bridges and NMT facilities
- developing and implementing the integrated rapid public-transport networks for regular transport services
- developing and upgrading the airport network with a proper road-link infrastructure and services
- revitalising rural railway operations by expanding rail passenger services and freight operations to the rural areas.

Through the EPWP, the department aims to contribute to job creation by implementing labour-intensive projects.

Taxi Recapitalisation Programme (TRP)

Government's TRP is underpinned by a strong desire for an integrated public-transport system. The main objectives are to have a taxi industry that supports a strong economy, puts the passenger first and meets the country's socio-economic objectives.

Government recognises the critical role played by the industry, and endeavours to ensure its growth and sustainability.

The TRP is not only about scrapping old taxi vehicles, but also about the sustainability and effective regulation of the industry. It is a direct response to the recommendations of the National Taxi Task Team, to consider specific interventions to turn the taxi industry around.

Compliance with the necessary basic requirements include possession of legitimate documentation and securing the appropriate types of vehicle, specifically new taxi vehicles that comply with safety specifications.

Bus Rapid Transport

Tshwane and Johannesburg have rolled out Phase A of the BRT. In February 2011, the Minister of Transport, Mr Sibusiso Ndebele, and the City of Johannesburg handed over Phase 1A Bus Operating Company of the Rea Vaya BRT System to the taxi industry shareholders.

A third of shareholders relinquished their operating licences and raised the 66,7% shareholding, making the Rea Vaya Bus Operating Company majority-owned and managed by former taxi-industry operators.

Each of the 316 shareholders was required to pay R54 000 from the proceeds of the scrapping or sale of their vehicles. Some operators submitted more than one vehicle to be scrapped.

A database of one employee per affected vehicle was developed and at least 200 former taxi drivers have been employed as bus drivers, while a further 150 affected workers have been employed at Rea Vaya stations as station ambassadors and marshalls.

In May 2011, Johannesburg's Rea Vaya BRT was honoured with an Encouragement Award for promoting the use of public transport in Johannesburg at the Public Transport Congress, hosted by the International Association of Public Transport in Dubai, United Arab Emirates.

Rea Vaya buses transport an average of over 30 000 people to and from work daily. The buses give residents of Soweto and the southern parts of Johannesburg direct access to the inner city and surrounding areas. The buses run at regular intervals on dedicated lanes, combating traffic

In October 2011, the Road Traffic Management Corporation (RTMC), in collaboration with Transnet Freight Rail (TFR) and the Department of Public Enterprises: North West Provincial Department of Public Safety and Liaison, launched the Road Safety Level Crossing Project in Rustenburg, North West.

Due to the high incidence of fatalities and injuries at level crossings, TFR has engaged the assistance of the RTMC to address and promote safety at level crossings.

The North West Project is a pilot in the Rustenburg area, mainly due to the high occurrence of level-crossing crashes. The project is one of the many projects undertaken by the RTMC in response to the Decade of Action for Road Safety.

congestion and improving the quality of public transport.

In addition, the Rea Vaya buses run on low-sulphur diesel, with the most advanced pollution-reduction equipment.

Road-traffic safety

Worldwide, roughly 1,3 million people die on the roads and 50 million sustain non-fatal injuries every year. In South Africa, 14 000 people die in road crashes annually. This amounts to almost R56 billion annually in lost revenue, medical costs, insurance and lost income.

The Zenani Mandela Road-Safety Scholarship, launched in April 2011 by the Nelson Mandela Foundation and the Commission for Global Road Safety, will help young South Africans tackle the growing epidemic of death and injury on the country's roads. The announcement took place at the launch of the *Make Roads Safe, Time for Action Report* of the Commission for Global Road Safety. The report makes a series of recommendations for the UN Decade of Action for Road Safety 2011 – 2020.

In March 2011, the Traffic Police National Intervention Unit (NIU) was established. The NIU is a specialised intervention force that was deployed to deal with any traffic situation in the country. It is a joint programme of the RTMC and Sanral.

The 231 traffic officers who comprise the NIU received special training in advanced driving, interpersonal communication, anti-corruption, dealing with diplomatic personnel, first aid and incident management. This unit will intensify the policing of the national roads network.

The unit will engage in joint operations with provincial traffic authorities, municipal/metro police, the South African Police Service (SAPS), the CBRTA, the Military Police and other relevant agencies such as the South African Revenue Service, and the departments of home affairs and environmental affairs.

The NIU will be at roadside checkpoints, multidisciplinary roadblocks, high-impact visibility patrols, unmarked patrols and alcohol test centres.

Arrive Alive

Government's Arrive Alive Road-Safety Campaign aims to:

- reduce the number of road-traffic accidents in general, and fatalities in particular, by 5%, compared with the same period the previous year
- improve road-user compliance with traffic laws
- forge improved working relationships between traffic authorities in the various spheres of government.

In June 2011, the RTMC in partnership with the South African Roads Federation, hosted the International Road Safety Conference, following the launch of the UN Decade of Action for Road Safety in May 2011. The RTMC is a member of the UN Road Safety collaboration.

The objectives of the conference included, among other things:

- identifying and understanding the issues related to the high accident rates in developing and emerging nations
- sharing best local, regional and international practices and experiences, which can be translated into action plans to reduce fatalities and serious injuries
- developing action plans and strategies to reduce the perpetuation of road-user deaths and injury rates in line with the principles of the Decade of Action.

The conference featured renowned international speakers who addressed, among other things, driver fitness and behaviour, habits that kill, the impact of road infrastructure on road safety, the safety standard of cars, regulation, education programmes, and road deaths in South Africa.

Cross-border transport

Multilateral

Cross-border road transport is underpinned by ground-breaking multilateral and bilateral agreements between South Africa and several of its neighbouring countries under the auspices of the CBRTA and the SADC Protocol on Transport, Communications and Meteorology, including the Southern African Customs Union (Sacu) MoU.

The SADC and Sacu documents encourage, among other things, good neighbourliness between member states and the facilitation of the unimpeded flow of goods and passengers between and across their respective territories.

Rail transport

Passenger Rail Agency of South Africa

Prasa merges the operations, personnel and assets of the South African Rail Commuter Corporation, Metrorail, Intersite Property Management Services, Shosholoza Meyl and the long-distance bus company Autopax (Translux and City-to-City).

Prasa is at the forefront of government efforts to transform public transport in South Africa, with rail services forming the backbone of the network. The essence of Prasa is to integrate inter-modal facilities and services into public transport solutions that optimise the performance of the whole transport system.

Over the past five years, Prasa has invested over R40 billion in passenger rail infrastructure and services in South Africa. This involved R23 billion in the Gautrain Project and almost R13 billion on rehabilitating Prasa coaches and signalling systems.

Prasa transported 476 million passengers in 2010/11, excluding passengers during the 2010 FIFA World Cup™. Of these passengers, 99,1% used commuter rail, 0,3% Shosholoza Meyl and 0,6% Autopax long-distance buses.

It used a commuter fleet of 4 589 motor coaches and trailer coaches, 124 locomotives and 1 214 long-distance rail coaches, and 570 long-distance passenger buses with 15 247 employees across 489 commuter stations and 71 long-haul stations in South Africa.

Government aims to achieve the following objectives in the future:

- sustainable passenger rail-service delivery
- improved passenger rail services in terms of quality and passenger service levels
- improved efficiency in service delivery
- improved effectiveness of asset management
- effective targeting of subsidies to achieve socio-economic and transport objectives
- improved oversight by government
- improved accountability to users.

The Department of Transport, through Prasa, is embarking on a bold and ambitious programme to invest in new rail rolling stock over a period of 18 years at an estimated cost of R97 billion.

The programme will enable Prasa to procure new rolling stock and locomotives for metro and long-distance rail services. This is expected to increase the country's passenger rail-transport network, offering new routes and destinations throughout South Africa.

The department aims to develop rail as part of a worldwide rail renaissance, necessitated by rapid urban migration, economic development and the emergence of mega-cities. In geographically spread countries with long-distance commuting on a daily basis, rail transport presents the best option.

A sustained programme over a 20-year-period is expected to create certainty and enable input-manufacturers to re-tool their factories, creating sustained local industrial activities. The rail development plan template has four outcomes, namely:

- urban transit systems
- long-distance transit systems
- key strategic freight corridors
- rural access and mobility.

Part of the department's rail plan is to identify critical inputs through a cost-benefit analysis based on its competitive advantage and through the creation of economies of scale. This approach is important to create sustainable jobs and economic growth.

Long-distance commuter services such as the Moloto, the Durban-to-Johannesburg and the Durban-to-Gauteng corridors were identified for development.

The Durban-to-Gauteng Corridor is the busiest corridor in the southern hemisphere, both in terms of value and tonnage. It also forms the backbone of South Africa's freight-transportation network.

It facilitates economic growth for the country, the region and the continent. The 2050 Vision for the Durban-to-Gauteng Corridor was adopted in September 2010.

A multi-agency structure comprising the Gauteng, Free State and KwaZulu-Natal provincial governments, the eThekwini and Johannesburg municipalities and the departments of trade and industry and public enterprises has been established.

The structure will drive the development of passenger and freight services on the Durban-to-Johannesburg Corridor.

In April 2012, the Minister of Transport formally invited manufacturers of rolling stock in South Africa, and all over the world, to submit their bids to win the right to build 7 224 metro coaches, estimated at R123 billion. These are modern trains that will be built in South Africa with the aim of revitalising the country's rail engineering industry, promoting local manufacturing, creating an estimated 65 000 jobs and developing a new generation of railway workers, in the form of engineers and artisans.

Gautrain

The Gautrain, Africa's only high-speed train, became fully operational between Pretoria and Johannesburg in August 2011.

Gautrain's first leg, the link between Johannesburg and OR Tambo International Airport, opened in June 2010, three days before the opening match of the 2010 World Cup.

This landmark initiative is supported by a network of feeder buses.

Gautrain can travel at speeds of 160 km/h, enabling commuters to make the trip from Johannesburg to Pretoria in less than 40 minutes.

Passenger rail safety

The National RSR Act, 2002 (Act 16 of 2002), is the enabling legislation for the setting up of the independent RSR, reporting and accountable to the Minister of Transport. The mandate of the RSR is to:

- oversee safety in railway transport, while operators remain responsible for managing the safety of their operations
- develop an appropriate regulatory framework through the development of regulations and standards for safe railway operations
- monitor and ensure safety compliance by conducting audits, inspections, safety assessments and occurrence investigations
- collect and disseminate information relating to safe railway operations
- promote the harmonisation of the railway safety regime of South Africa with SADC railway operations
- promote improved safety performance to support the use of rail.

In pursuance of this mandate, the RSR has, in collaboration with the railway industry and the South African Bureau of Standards (SABS), developed a series of standards to ensure a common and consistent approach to railway safety in areas such as safety management, technical and operational requirements and the management of human factors.

In May 2011, the SABS published the *National Standard on Human Factors Management*, which was developed to provide railway operators with the minimum requirements to manage human factors. The standard will be mandatory for all railway operators in South Africa. The standard is applicable to all employees undertaking safety-related work in the railway environment.

A key to the successful regeneration of the railway system in South Africa, and indeed the subregion, is the interoperability of the railways. This implies consistent standards and common usage of technology where railway infrastructure is used by more than one operator. The RSR and the railway industry continue to collaborate in developing the overarching broad technical and operating standards.

The need for harmonisation of safety standards within the SADC region is of strategic importance. The RSR is facilitating efforts to adopt and align the current railway safety standards by regional railway operators through the Southern African Railway Association (Sara).

Since the RSR's creation, there has been an increased awareness of safety in railways, improvements in safety management and accountability, and standardisation of safety management systems among railway operators in South Africa and regional railways operating into South Africa. The permit system employed by the RSR ensures the standardisation of safety management systems. Through its Sara membership, the RSR plays a leading role in regional safety issues. The RSR played a central role in developing the Regional Safety Policy Framework and safety standards and in updating the *Handbook on the Transportation of Hazardous Materials by Rail*.

Since the reintroduction of the railway police, there has been a significant drop in crime on trains and at train stations.

Freight transport

Africa's road access rate is only 34% compared with 50% in other geographical zones. Yet, roads remain the dominant mode of transportation, accounting for more than 90% of passenger and freight transport in Africa, compared with around 50% of freight in Europe.

Government will also review its rail investment programme to accelerate the shift of freight transport from road to rail. Transnet will invest about R63 billion in the freight rail system over the next five years. For its part, organised business will continue to promote greater use of rail freight by companies.

In August 2011, the Integrated Transport Planning Unit in the Department of Transport made a presentation to Parliament on *The Reduction of Freight Transportation by Road – A Shift Towards Rail*, which focused on, among other things:

- the challenges of transporting freight by both road and rail
- an analysis of the road and rail market share (with mostly the market share shifting to road)
- key freight corridors

- identified rail- and road-friendly commodities
- factors contributing to the decline of freight rail
- policy and strategic thrusts.

The Department of Transport has, in its efforts to address challenges, taken the following steps:

- the 2005 Cabinet-approved National Freight Logistics Strategy, which proposed an institutional arrangement for railways
- the Draft Rail Branch Line Strategy, which seeks to capacitate the current challenges faced by the secondary rail network and allow private operators on this specific network, and subsequently competition
- the Natmap, which deals with a demand forecast model in relation to demand for both passenger and freight transport and the insitutionalisation thereof
- the Road Freight Strategy, which recommends proposals on how to better manage the road freight environment such as through axle load mass limits, commodities that were identified as road-friendly as well as those that are rail-friendly
- the *Green Paper on Rail Policy* as a blueprint for railways (both passenger and freight in the country)
- a single transport regulator and related rail economic regulator, which seeks to regulate market access to the current rail network for private operators who would have an opportunity to operate on the secondary rail network.

Transnet Freight Rail

TFR, the largest operating division of Transnet, has as its primary purpose the transportation of rail freight. Core freight activities account for about 95% of its revenue.

Transnet Ltd, operating and controlling South Africa's major transport infrastructure, is also responsible for ensuring that the country's transport industries operate according to world-class standards. Forming an integral part of the southern African economy, Transnet:

- moves 17% of the nation's freight annually
- exports 100% of the country's coal
- exports 100% of the iron ore
- has annual revenue of over R14 billion
- will, over the next five years, invest R35 billion in capital
- has 25 347 employees system-wide.

The company maintains an extensive rail network across South Africa that connects with other rail networks in the sub-Saharan region, with its rail infrastructure representing about 80% of Africa's total.

In February 2011, TFR took delivery of 100 locomotives in line with its capital investment and skills-development programmes.

The locomotives were the first AC diesel locomotives to be introduced in sub-Saharan Africa. They will be used on the coal line and for general freight business, and are part of TFR's fleet renewal plan and the company's R93,5-billion five-year capital investment programme.

The agreement with the parastatal was in line with its commitment to use its capital investment programmme to meet the objectives of the Competitive Supplier Development Programme (CSDP). The CSDP is the department's initiative to encourage localisation of manufacturing, sustainable employment and skills development.

The first 10 locomotives will be built at the General Electric (GE) plants in the USA, while the other 90% will be assembled at TFR's manufacturing facilities in Koedoespoort, Pretoria, with GE supplying Transnet with all major components, including engines. Transnet Rail Engineering will be responsible for the complete assembly as well as sub-assemblies.

The GE/TFR agreement is South Africa's largest CSDP transaction, positioning the utility as the leading state-owned enterprise (SOE). The agreement between TFR and GE will go a long way towards ensuring that SOEs play a significant role in advancing the goals of government's NGP.

The long-term objective of TFR is to localise its supply chain of imported manufactured goods or services to a reasonable level, while also promoting local industries and South Africa. Locomotive fleet renewal is central to the company's drive to improve productivity, safety and efficiency of assets and people.

It also gives TFR an opportunity to develop its engineering, technical and manufacturing skills in partnership with a leader in this field.

TFR Engineering's Koedoespoort plant has been upgraded and employees received training at GE facilities in the USA, Mexico and Australia.

To accommodate the increased demand for its container services and to further stimulate container and automotive growth on rail by offering a sustainable superior service, TFR has created a ring-fenced business unit known as the Container and Automotive Business.

This follows on the success of the turnaround of this business unit, which has seen it increase its market share from 17% to 34% nationally and the increase from four to 22 trains per day on the KwaZulu-Natal corridor. This unit achieved record volumes in 2010/11 with 20-ft equivalent units (TEUs) – a TEU is the volume of a standard 6-m shipping container – increasing from 525 000 in 2007/08 to 628 000 and the company expecting to handle 1,118 million TEUs by 2016. Record volumes in the automotive sector were also recorded. Volumes increased from 102 000 units in 2009/10 to 131 000 units in 2010/11 – a 29% increase.

These gains can be largely ascribed to a reduction in transit times, which saw the average transit time on the KwaZulu-Natal corridor being reduced from 30 hours to 18; and the introduction of the Anaconda, which created an increase in capacity from a 40-wagon to 75-wagon train. Close collaboration with the industry has also provided customers with confidence in the unit's capabilities and enhanced inter-modalism.

Civil aviation

Aviation is a critical strategic component of the South African economy, and the economies of all countries in southern Africa.

In 2010, 21 million people and 240 000 t of freight travelled to, from and within South Africa. One of the key legacies of the 2010 World Cup was an investment of R17 billion in airport infrastructure.

In January 2011, the Department of Transport announced the approval and coming into effect of the National Airspace Master Plan (NAMP) 2011 – 2015.

It provides a strategic view and direction of airspace organisation and management within South Africa, as well as the notion of performance-based transition planning at global, regional and local level. It has been compiled in accordance with the National Civil Aviation Policy, as amended and is effective as of January 2011.

The objectives of the NAMP are, among other things:

- servicing the airspace in accordance with ICAO standards and recommended practices in such a way that it meets the requirements of all users and, particularly, the international community
- rationalising all managed airspace in accordance with ICAO standards and recommended practices in such a way that it meets the requirements of all users by a consultative process, strategically and tactically
- minimising all permanently prohibited, restricted and danger areas in accordance with ICAO standards and practices, and to facilitate the flexible use of airspace to the benefit of all users.

The NAMP will also guide the National Airspace Committee, established through the Civil Aviation Regulations, 1997, in the execution of its mandate, by providing measurable key performance areas, performance objectives, indicators and targets in contemplating amendments to airspace, procedures and infrastructure.

Airlift Strategy

Cabinet approved the Airlift Strategy in July 2006 to introduce effectively structured regulatory measures for increasing tourism growth for South Africa.

In particular, this strategy is based on aviation policy directives and contributes to the county's growth by:

- aligning with the Tourism Growth Strategy and industry
- prioritising tourism and trade markets
- unblocking obstacles to growth through regulatory mechanisms, and bilateral and multilateral air-services negotiations.

In particular, the strategy supports the MDGs and the objectives of Nepad to increase African connectivity and access through the accelerated implementation of the Yamoussoukro Decision of 1999 on the liberation of intra-Africa air-traffic services.

The overall objective of the Airlift Strategy is to increase aviation's contribution towards sustainable economic growth and job creation. This requires the creation and maintenance of an enabling framework, within which both suppliers and consumers of air-transport services may exercise reasonable flexibility and choice.

The strategy enhances the prospects of South Africa as a preferred air-travel destination and synchronises the basis for bilateral air-services negotiations with other priorities.

The strategy also provides specific guidelines for various unique markets, with emphasis on the needs of intra-African air services, and aims to improve the regulation of particularly the supply-side of air-transport services.

In June 2011, the Minister of Transport, Mr Sibusiso Ndebele, signed a bilateral air services agreement with his Cameroonian counterpart, Mr Maigari Bello Bouba, which will help further open up the African skies to air services. The ministers signed the agreement on the final day of the Transport Infrastructure Conference. It is the first such agreement to be signed in line with the Yamoussoukro Decision of 1999, which aims to deregulate air services on the continent.

The bilateral agreement allows South African airlines to fly to Cameroon, take on passengers, and fly on to second or third countries.

The department also developed the Airlift Implementation Plan, which provides a clear framework and capacity targets to be met. The Airlift Strategy is expected to promote the provision of adequate air-service capacity and infrastructure to cater for the projected growth in air movements within South Africa, and between South Africa and its key international partners.

Airlines

Major domestic airlines operate in the country, as well as a number of smaller charter airline companies.

South African Airways (SAA), British Airways (BA)/Comair, SA Express, SA Airlink and Inter-Air operate scheduled air services within South Africa and the Indian Ocean islands. In addition to serving Africa, SAA operates services to Europe, Latin America and the Far East.

Other airlines operating in the country are Kulula, Mango and 1time. The South African National Taxi Council (Santaco) launched its low-cost airline in September 2011 from Lanseria Airport. Santaco Airlines is expected to open up air travel to many people who have not had access to travel by air.

The venture is significant because it is a practical example of economic and social emancipation in ownership and consumption. The airline is owned by over 10 000 taxi owners, making it one of the most BBBEE ventures in South Africa.

Scheduled international air services are also provided by Air Afrique, Air Austral, Air Botswana, Air France, Air Gabon, Air Madagascar, Air Malawi, Air Mauritius, Air Namibia, Air Portugal, Air Seychelles, Air Tanzania, Air Zimbabwe, Airlink Swaziland, Alliance Express, BA, Cameroon Airlines, Delta Airlines, El Al, Egyptair, Emirates, Ethiopian Airlines, Ghana Airways, Iberia, KLM, Kenya Airways, LAM Mozambique Airlines, LTU International Airways, Lufthansa, MK Airlines, Malaysia Airlines, Martinair Holland, Northwest Airlines, Olympic Airways, Qantas, Royal Air Maroc, Saudi Arabian Airlines, Singapore Airlines, Swissair, Taag, Thai International, Turkish Airlines, Uganda Airlines, United Airlines, Varig, Virgin Atlantic, Yemenia, Zambian Air Services and Zambian Skyways.

South African Airways

SAA is the largest air carrier in Africa, with OR Tambo International Airport being on the busiest routes in Africa. Nearly 75% of air-traffic activity in Africa takes place in the region.

SAA made a net profit of R782 million in 2010/11. Group operating profit rose by 66% to R807 million from 2009/10. Turnover, consisting largely of passenger revenue, increased from R16,9 billion to R18 billion.

SAA is the only non-stop service from the USA to South Africa, with daily departures from Washington DC.

Effective May 2011, SAA offered its customers the convenience of flying non-stop between Johannesburg and New York.

The King Shaka International Airport offers vast commercial opportunities. It has approximately three times more retail outlets than the old Durban International Airport, contributing over the medium to long term to the subsidisation of tariffs. The airport site also has property-development opportunities, which would be unlocked over the next few years.

In February 2011, President Jacob Zuma officially received the new A330-200 Airbus delivered at the Cape Town International Airport. The aircraft was the first of six to be delivered in 2011.

The delivery of the new aircraft came at a time when the airline rolled out its network expansion plan, offering its passengers more convenient connections to local, regional and international destinations.

The aircraft was named after heroine Charlotte Maxeke in recognition of her contribution to the country.

The acquisition of the Airbus for its fuel efficiency was in line with the country's mission to reduce its carbon footprint and contribute towards a green economy.

Ports

A major part of world trade depends on South Africa's coastal waters. The country is situated on a major sea route, which facilitates the safe and secure movement of about 500 million ton (Mt)

South African Airways won the Best Airline Africa Award for the ninth consecutive year and the Service Excellence Africa Award for the second consecutive year at the 2011 World Airline Awards. The awards were presented in Paris, France, on 22 June 2011.

The Best Airline Africa Award is awarded to the airline rated the best in the region for all the different items of airline front-line product and service. A quality, unrivalled product as well as unwavering service standards and consistency experienced at the airport and onboard the aircraft were judging criteria for this award.

of crude petrochemical sea trade. This represents over 30% of the world's petrochemical production, on board over 5 000 tanker voyages of very large crude carriers per year.

The country's ports handle over 430 Mt of varied cargo types, carried on over 9 000 ship calls each year. In addition, thousands of merchant ships, fishing and commercial vessels and hundreds of special platforms mining houses and multinational industries use South Africa's ports annually.

The nine commercial ports play a crucial role in South Africa's transport, logistics and socio-economic development. About 98% of South Africa's exports are conveyed by sea. The National Ports Regulator was established in terms of the National Ports Act, 2005 (Act 12 of 2005). Its primary function is the economic regulation of the ports system, in line with government's strategic objectives to promote equity of access to ports and to monitor the activities of the TNPA. The regulator also promotes regulated competition, hears appeals and complaints, and investigates such complaints.

The TNPA is the largest port authority on the continent. It owns and manages South Africa's ports at Richards Bay, Durban, East London, Port Elizabeth, Mossel Bay, Cape Town, Saldanha and Ngqura.

The TNPA provides suitable infrastructure as a conduit for the country's imports and exports. As port landlord, it is responsible for:

- developing and managing port properties
- developing, advising and implementing national port policies
- providing and maintaining port infrastructure (i.e. breakwaters, seawalls, channels, basins, quay walls and jetties), and the sustainability of ports and their environments
- coordinating marketing and promotional activities for each port.

The TNPA also has a control function, which includes:

- providing vessel-traffic control and navigational aids
- licensing and leasing terminals to operators
- monitoring the performance of port operators
- ensuring the orderly, efficient and reliable transfer of cargo and passengers between sea and land.

Of the four distinct market sectors in which Port Terminals operates, containers and dry bulk contribute about 80% of revenue.

Most of the world's major container shipping lines call at Port Terminals' container terminals in Durban, Ngqura, Port Elizabeth and Cape Town.

Of these, three shipping companies contribute in excess of two thirds of the market volumes of imports, exports and transshipments.

The dry bulk volumes consist of exports of iron ore, manganese, magnetite, chrome and various other commodities of a lesser magnitude. Imports of vital raw material destined for harbour-bound and inland industries are also handled through Port Terminals' dry bulk terminals.

Port Terminals operates three car terminals in the ports of Durban, East London and Port Elizabeth.

All terminals are differentiated by their design, layout and service offering to numerous original equipment manufacturers. Port Terminals also provides import services for most makes of vehicle that are sold but not produced in South Africa.

Based on the *White Paper on the National Commercial Ports Policy (2002)*, the vision for South African ports is to become a system of ports, seamlessly integrated in the logistics network, that is jointly and individually self-sustainable.

This will be achieved through the delivery of high levels of service and increasing efficiency for a growing customer base. It will result in the enhancement of South Africa's global competitiveness and facilitate the expansion of the economy through socially and environmentally sustainable port development. The TNPA consists of the following divisions:

Trade and Logistics

This division is the strategic business arm of the TNPA. It is responsible for customer-relationship marketing, in combination with technology and human resources (HR).

Three South African women have set the standard in Africa by becoming the first black female marine pilots on the continent to gain open licences, enabling them to navigate ships of all sizes and types into local waters.

Precious Dube, Bongiwe Mbambo and Pinky Zungu, who are three of only five female marine pilots in South Africa, are tasked with guiding ships through dangerous or congested waters, such as harbours.

The marine pilot acts as an adviser to the captain, who maintains legal, overriding command of the vessel.

The three women are products of Transnet's National Ports Authority development scheme, which has been encouraging more equitable participation in the maritime sector since the 1990s. Transnet offers aspirant students bursaries to complete a national diploma in maritime studies – specialising in navigation – and a national diploma in marine mechanical engineering. These courses can be taken at the Cape Peninsula and Durban universities of technology.

Landlord Services

Landlord Services ensures the planning, development and optimal use of port property and infrastructure, as well as a safe, secure and healthy port environment.

The division consists of property, engineering, and planning and development. Landlord Services has traditionally been the TNPA's major revenue earner, initially through wharfage, and currently through cargo dues.

Maritime Services

Maritime Services includes improving efficiency in shipping services, dredging navigational waterways, and ensuring a safe shipping environment through vessel-tracing services, pilotage and lighthouse services.

The ports provide:

- pilotage, tug and berthing services
- bulk-handling installations to handle dry and liquid bulk, complemented by storage facilities
- container-handling facilities
- multipurpose terminals for the handling of break bulk and containers
- access to rail and road links
- ship-repair facilities
- feeder services.

Lighthouse Services

Lighthouse Service is a business unit of the TNPA. It owns, provides and operates all the lighthouses and aids to navigation along the coast of South Africa. Lighthouse Services is also contracted to provide and maintain the aids to navigation in the ports, Sea Fisheries harbours and most private harbours and marinas, thus ensuring that all the aids to navigation on the South African coast comply with international standards.

Lighthouse Services in South Africa operates and maintains 45 lighthouses, along with other beacons and aids to navigation along the approximately 3 000 km of South African coastline, stretching from Port Nolloth on the West Coast to Jesser Point at Sodwana on the East Coast.

Due to modern technology and automation, only 15 of the 45 lighthouses are still manned. Most of the lighthouses are equipped with self-catering accommodation for use by visiting maintenance staff. These include Cape Columbine in the Saldanha Bay area; Danger Point near Gansbaai; Cape St Blaize at Mossel Bay; Great Fish Point in Port Alfred; and North Sand Bluff near Port Edward. Cape Columbine has a conference facility, where 100 persons can be seated cinema-style and 30 conference-style. The venue also has a swimming pool.

This venture, known as SA Lighthouse Adventure Tour Operations and managed by the Lighthouse Services, was officially launched at Cape Columbine by the then Minister of Public Enterprises, Mr Jeff Radebe, in September 2002. It is a tour-operating business specialing in lighthouse tours, which include visits and accommodation at lighthouses. The main objective is to develop the lighthouses and related facilities in South Africa into attractive and sought-after tourist destinations.

The services offered range from a guided tour of a lighthouse to a holiday in a fully equipped, self-catering cottage.

Marine Services

Marine Services operates 24 large tugs, eight work boats, four pilot boats and 14 launches in South Africa's commercial ports. The ports of Durban and Richards Bay provide 24-hour services.

Portcon International

This division provides a consultancy and training service appropriate to ports operating within the African context.

Port and Corporate Affairs

This division is responsible for the efficient and profitable running of the ports as service-delivery platforms.

Deepwater ports

South Africa's new deep-water harbour, the Port of Ngqura near Port Elizabeth, launched operations in October 2009, when its first commercial customer, the *MSC Catania*, docked at the port.

The port is an integral part of the Coega Industrial Development Zone. The 300-m long and 13-m deep ship was used to test vessel operators' skills in offloading and handling containers with an average of 19 containers handled per hour.

The Ngqura Port, which lies at the mouth of the Coega River in Algoa Bay, is a deep-water port with a depth of between 16 m and 18 m.

The improved infrastructure will relieve container congestion in the South African port system, while attracting additional transshipment cargo. The Ngqura Container Terminal will have the capacity to accommodate "ultra-mega" ships carrying 6 000 to 10 000 TEUs, a measure used for capacity in container transport.

The port is considered the most modern harbour in Africa. Although sub-Saharan Africa has a number of smaller ports, these are only suitable for medium-sized ships. It will not only boost the economy of the Eastern Cape; but is also an important development for trade in South Africa and the rest of Africa.

The port development will directly create employment in the region and holds positive secondary benefits for other product groups such as agriculture, fishing, construction, transport (including storage), financial and business services, electricity and gas, as well as wholesale and retail business.

Rail operations at the new port have also received a stamp of approval. The rail route will connect the new port to the City Deep Rail Terminal in Johannesburg in Gauteng via Beaconsfield in the Northern Cape. Transnet has refurbished 400 container wagons and will use its 7E locomotive fleet for traffic on the line, which has a designed capacity of six trains per day, each with 50 wagons.

The Port of Richards Bay is South Africa's leading port in terms of cargo volumes, handling in excess of 80 Mt of cargo annually.

The port covers a surface area of 2 174 ha on land and 1 443 ha on water, making it the biggest port in South Africa in terms of size. It also offers easy access to South Africa's national rail network.

One of the port's inherent strengths is its deep-water infrastructure, with a maximum permissible draught of 17,5 m. This, coupled with the high-tech state-of-the-art terminal infrastructure, allows for high-speed and high-volume cargo handling and a fast turnaround of vessels.

The port with its immediate region has become a popular call for international cruise ships because of the close proximity to game parks and the iSimangaliso Wetlands Park.

The facilities at Richards Bay's Port comprise a dry-bulk terminal, a multipurpose terminal and a privately operated coal terminal. Other private operators within the port include several woodchip export terminals and a bulk liquid terminal.

Richard's Bay Dry Bulk Terminal is a unique terminal that handles a variety of commodities on its conveyor system.

To avoid contamination, every belt, transfer point, rail truck and vessel loader/unloader is washed thoroughly before the next product is handled. A high-volume woodchip loader has made this terminal one of the world's best and most efficient woodchip-loading facilities.

Saldanha Port, situated on the West Coast, is the deepest and the largest natural port in southern Africa. The port is unique in that it has a purpose-built railroad serving a bulk-handling facility, which is connected to a dedicated jetty for the shipment of iron ore. Saldanha also serves as a major crude-oil importation and transshipment port. It is the only iron ore-handling port in South Africa.

Hub ports

The Port of Durban is a full-service general cargo and container port. It is the most conveniently situated port for the industrialised Durban/Pinetown and Gauteng areas and cross-border traffic. The Port of Durban has developed into Africa's busiest multiservice port, handling up to 80 Mt of

> In September 2011, Transnet signed an agreement with Shanghai Zhenhua Heavy Industries, from China, to buy seven tandem lift ship-to-shore cranes for the Durban Container Terminal.
>
> The cranes will replace the terminal's ageing infrastructure as part of the parastatal's interventions to renew the fleet of port-handling equipment to boost efficiency and productivity. The cranes will be manufactured in China and are expected to be installed during 2012/13.

cargo, and on average, 4 000 ships a year. For the port to remain globally competitive, Transnet has embarked on a series of large-scale infrastructural and operational development programmes within the port.

The flagship project was the deepening and widening of the entrance channel to the port, making it the southern hemisphere's largest and best-equipped commercial harbour.

The widening and deepening of the Durban harbour entrance provides the port with a new entrance channel, which allows safe access to all vessels under all weather conditions.

It is especially effective as a hub port for cargo to and from the Far East, Europe and the Americas, serving South Africa, as well as west and east African countries. The port is also the premier port for a wide range of commodities, including coal, mineral ores, granite, chemicals, petrochemicals, steel, forest products, citrus products, sugar and grain.

It is estimated that the port and its related industries contribute in excess of 20% of Durban's gross domestic product (GDP). Durban contributes almost 55% of the KwaZulu-Natal GDP, which in turn is about 15% of the South African GDP. The maritime industry in Durban contributes between 1,5% and 2% of the national GDP. This is a contribution to the local GDP of between R25 billion and R35 billion, according to Port of Durban statistics.

The Port of Cape Town is the other hub in South Africa. It offers multipurpose dry, and liquid and dry terminals, as well as fully serviced dry docks.

The port is renowned for its deciduous fruit and frozen-product exports. A major fishing industry is also based here. The Port of Cape Town is strategically positioned and ideally situated to serve as a hub for cargoes between Europe, the Americas, Africa, Asia and Oceania. The port provides a complex network of services to its clients and a favourable environment for all stakeholders, maximising benefits to the local and national economy. Integrated intermodal cargo systems, ship repair, bunkering facilities and the reefer trade are examples of these services.

In June 2011, the R5,4-billion expansion of Cape Town Harbour's Container Terminal was on track for completion within budget and ahead of schedule, following the dredging and refurbishing of the second of four quays.

The completion of berth 602 saw 720 m of quay wall made available to accommodate two 305-m vessels along the quay.

The project signifies Transnet's commitment to ensure the competitiveness of the economy as custodians of the transport and logistics infrastructure.

The investment, which is part of Transnet's R110-billion rolling five-year capital investment programme, will not only increase capacity, but go a long way towards improving productivity and efficiency at the ports.

Completion of the five-year-long project is expected to double the terminal's capacity to 1,4 million TEUs a year.

SOEs such as Transnet, through their expansion projects, were encouraged to be the key drivers of the Government's developmental objectives, as articulated in the NGP.

Multipurpose ports

The Port of Port Elizabeth, with its proximity to heavily industrialised and intensively farmed areas, has facilities for handling all commodities – bulk, general and container cargo.

Being situated at the centre of the country's motor-vehicle-manufacturing industry, the port imports large volumes of containerised components and raw material for this industry.

The bulk of exports comprises agricultural products. Apart from agricultural produce, manganese ore, motor-vehicle-industry-related products and steel are exported.

The container terminal has maintained the highest handling rates in Africa in recent years and is accredited to International Standards Organisation 9002. Located mid-way between Cape Town and Port Elizabeth, the Port of Mossel Bay has in the past specialised in serving the local inshore and deep-sea fishing industry, as well as limited commercial cargo. However, it now serves the oil industry as well as other client-oriented marine cargo.

This port is the only South African port that operates two offshore mooring points within port limits. Both mooring points are used for the transport of refined petroleum products.

The Port of East London is situated at the mouth of the Buffalo River on South Africa's east coast, and is the country's only commercial river port.

It boasts a large container terminal and grain elevator, and is the largest exporter of maize.

With a world-class R80-million car terminal, the port has become one of the major motor-vehicle export and import terminals in South Africa.

Through Transnet, government is investing close on R50 billion in rail- and port-infrastructure improvement.

The project is expected to have a significant impact on Transnet's container-handling capacity, which includes the expansion of capacity of container terminals in Durban, and the construction of the state-of-the-art Ngqura Container Terminal outside Port Elizabeth in the Eastern Cape.

From a customer perspective, the rate at which containers are moved per hour had improved by more than 30% by the end of 2011.

Key aspects of the project include:

- deepening all four berths to 15,5 m
- reconfiguring the stack yard to maximise space
- replacing the old ship-to-shore cranes with eight Liebherr Super Post-Panamax cranes with twin-lift capability – six of these were already in place by June 2011
- replacing straddle carriers with 28 Kalmar-manufactured rubber-tyre gantry cranes that stack containers wider, deeper and higher
- refurbishing the quay wall to support the Super Post-Panamax ship-to-shore cranes
- introducing additional reefer plug points for refrigerated containers, with a total of 2 712 reefer points to be served by gantry cranes
- recruiting and training operators of lifting equipment to operate the new cranes.

Pipelines

South Africa consumes about 25 billion litres of petroleum products a year.

Transnet Pipelines transports almost 50% of all refined petroleum products in the country for the emerging and major oil companies of South Africa. The Tarlton storage and distribution depot is a vital conduit in the supply of fuel to Botswana. Transnet Pipelines plans to enhance this service.

Transnet Pipelines transports all the crude requirements for the inland refinery at Natref, from where almost 70% of their refined products and 80% at Secunda are transported through the pipeline network to the final markets.

Transnet Pipelines owns, maintains and operates a network of 3 000 km of high-pressure petroleum and gas pipelines.

Investment is ongoing in the pipeline sector.

In October 2011, the South African Maritime Safety Authority (Samsa) Seafarer of the Year Awards were held in Cape Town. With the awards, the maritime sector celebrates the significant role played and contribution made by South African seafarers. The categories are: Fishing, Commercial, Shore-based and Overall Samsa Seafarer of the Year.

Construction of a R5,8-billion fuel pipeline between the Mozambican Port of Matola in Maputo and Kendal in South Africa started in 2009. The 450-km pipeline transports up to 3,5 million litres (Ml) a year and is expected to prevent potential fuel shortages in South Africa.

The pipeline facilitates the importation of petrol and diesel from Mozambique, which has extensive natural gas and coal reserves, but no oil reserves. Of the pipeline's total capacity of 3,5 Ml of fuel and diesel, a maximum of 1,5 Ml is diverted to Mbombela, while the remainder is transported to Kendal.

More than 60% of South Africa's liquid fuels-demand lies within the Durban-to-Johannesburg Corridor. The Durban-to-Johannesburg Pipeline has become inadequate to transport the required volumes of petroleum products from the coast to the inland regions.

The New Multi-Product Pipeline, which is under construction at a cost of R23 billion between Durban and Johannesburg, will be replacing the existing Durban-Johannesburg pipeline and is expected to increase capacity from 4,4 billion litres to 8,4 billion litres by December 2013.

Maritime affairs

Maritime administration, legislation and shipping

Marine transport encompasses all forms of transport by sea, intermodal links and inland ports. It caters to a large degree for the freight market, and in the South African context offers no significant passenger-carrying ability.

The Department of Transport is responsible for South Africa's maritime administration and legislation, which Samsa controls on its behalf in terms of the Samsa Act, 1998.

The broad aim of Samsa is to maintain the safety of life and property at sea within South Africa's area of maritime jurisdiction, and to ensure the prevention of marine pollution by oil and other substances emanating from ships. The Department of Environmental Affairs is responsible for combating pollution and uses *Kuswag* coast-watch vessels to perform this function. Samsa is responsible for introducing and maintaining international standards set by the International Maritime Organisation (IMO) in London, with respect to:

- ship construction
- maritime training and training curricula
- watch-keeping
- certification of seafarers
- manning and operating local and foreign ships
- maritime search-and-rescue
- marine communications and radio navigation aids
- pollution prevention.

Samsa has an operations unit, a policy unit and a corporate support division to handle all financial, HR and information-technology issues.

Other functions include registering ships, establishing a coastal patrol service and managing marine casualties and wrecks.

Samsa is steadily improving its capacity to monitor safety standards of foreign vessels. Numerous ships calling at South Africa's major ports are inspected, and those not complying with international safety standards are detained until the deficiencies are corrected.

The South African Marine Corporation, Unicorn Lines and Griffin Shipping are South Africa's predominant shipping lines. Their fleets of container, oil tanker, general cargo and bulk cargo vessels operate not only between South African ports, but also as cross-traders to other parts of the world.

South Africa signed an agreement to establish the subregional MRCC in South Africa and subregional maritime subcentres in the Comoros, Madagascar, Mozambique and Namibia in 2007.

Training

The South African Maritime Training Academy at Simonstown in the Western Cape provides advanced training to the broader maritime sector, including the merchant navy, harbour-craft operations, the fishing industry and the South African Navy. The South African Merchant Navy Academy, General Botha, established at Granger Bay, is integrated with the Cape Peninsula University of Technology, with a similar training facility at the Durban Institute of Technology.

Deck and engineering students and officers complete their academic training at the Cape Peninsula University of Technology and the Durban Institute of Technology, while lower classes of certificates are offered at the Training Centre for Seamen, situated in the Duncan Dock area in Cape Town. This training institution also caters for deck, engine-room and catering department ratings.

Samsa is responsible for setting all standards of training certification and watch-keeping on behalf of the Department of Transport, while the Maritime Education and Training Board is responsible for accrediting all maritime courses.

Other maritime training organisations offer a wide range of courses that have been developed within the South African maritime industry. These are situated mainly in the ports of Cape Town and Durban and, to a lesser degree, Port Elizabeth.

Search-and-rescue services

The Southern African Search and Rescue Organisation (Sasar) has been in existence since 1957. It was formalised through the enactment of the South African Maritime and Aeronautical Search and Rescue Act, 2002 (Act 44 of 2002). The Act gave the organisation a statutory mandate to coordinate all search-and-rescue activities with South Africa's area of responsibility (SAR Region).

South Africa is responsible for a huge area, representing about 10% of the globe and about 28,5 million km^2 in total. To manage this vast area, the South African area is divided into two SAR regions, namely the aeronautical and maritime SAR regions.

South Africa is located on a coastline of just under 3 000 km. The country has jurisdiction over about one million square kilometres of economic exclusive zone, and a search-and-rescue responsibility spanning a 27-million square kilometres zone, covering a vast sea room up to the polar continent of the Antarctic, including a part of the Southern Ocean.

A major part of world trade depends on South Africa's coastal waters. The country is situated on a major sea route, which facilitates the safe and secure movement of about 500 million tons of crude petrochemical sea trade. This represents over 30% of the world's petrochemical production.

The country's ports handle over 430 metric tons of varied cargo types, carried on over 9 000 ship calls each year. In addition, thousands of merchant ships, fishing and commercial vessels and hundreds of special platforms transit or visit South Africa's ports every year.

South Africa's Centre for Sea Watch and Response, which houses the Maritime Rescue Coordination Centre and the Standby Salvage Tug Programme, responds to over 40 marine incidents a month, with the standby tug assisting hundreds of transiting ships in distress annually, some incidents occurring far out in the polar Antarctic region.

The Aeronautical SAR Region covers South Africa, Namibia, Swaziland, Lesotho and associated flight-information regions. The Maritime SAR Region stretches about halfway between South Africa and South America on the western side, and about halfway between South Africa and Australia on the eastern side.

It also borders on Namibia, Angola, South Africa and Mozambique on the northern side and then extends to the South Pole. Relevant operational structures and substructures were established for Sasar to execute its mandate successfully.

The Aeronautical Rescue Coordination Centre (ARCC) and the MRCC are the primary structures responsible for the execution of Sasar's statutory mandate. The ARCC and the MRCC are based at the ATNS and Samsa.

Search-and-rescue operations only work when several countries and all stakeholders collaborate across borders. This culture of collaboration dates back to 1959 when the Convention on International Civil Aviation first made provision for cooperation between states.

According to this provision, states will individually or in cooperation with other states, arrange for the establishment and prompt provision of search-and-rescue services within their territories to ensure that assistance is rendered to persons in distress.

Regional cooperation also uses scarce resources and helps nations to avoid duplicating efforts and facilities. Through this collaboration, services are provided for poor states in a uniform manner across a wide area. Collaboration also reduces the overall cost of search-and-rescue operations.

The SADC approached ICAO and the IMO to consider funding the training requirements identified for the region. Together with the Department of Environment Affairs, the Department of Transport is planning to create search-and-rescue capacity in the Antarctic region.

The Department of Transport, the South African National Defence Force, Telkom, Portnet, Samsa, SACAA, ATNS, SAPS, the Independent Communications Authority of South Africa, SAA and the Department of Cooperative Governance are members of Sasar and contribute their services and facilities.

Voluntary organisations such as the 4x4 Rescue Club, the Mountain Club of South Africa, Hamnet (the national amateur radio emergency communication network) and the National Sea Rescue Institute are also members of Sasar.

South Africa has been re-elected to the United Nation's 170-member International Maritime Organisation (IMO) for a two-year term during the body's 27th Assembly in London.

More than 1 000 delegates from IMO member states as well as from international governmental and non-governmental organisations attended the session in March 2011.

The ARCC Centre is an operational facility of Sasar that promotes the efficient organisation of search-and-rescue services and coordinates aeronautical search-and-rescue operations. This plays a significant role in improving the safety of South African airspace.

Maritime safety

Thousands of vessels pass around South Africa's coastline annually, of which many are laden tankers carrying in excess of 30 Mt of crude oil. South African weather conditions present regular challenges to vessels, often resulting in distress calls to the Cape Town-based MRCC.

Piracy constitutes a serious challenge to the development and stability of the SADC member states, given the importance of the region's international seaborne trade and its vital contribution to regional food stocks and economic development.

The sea plays an important role in both the SADC's economy and international commerce and maritime security is essential for the SADC's continued economic and political stability.

The SADC therefore has both an international and regional responsibility to help promote good order at sea. Threats of piracy are of particular concern to the SADC, whose coastline and shipping lanes are extremely vulnerable to maritime crime. As the SADC's coastal area does not fall within patrol areas of the international anti-pirate forces, the SADC will have to take responsibility for its own maritime security.

The SADC's Maritime Strategy must entail a regional partnership with all member states contributing within their means. Not all member states necessarily have the essential maritime and military capabilities, but they still contribute in other ways. Some countries, for example, provide land-based equipment such as radar, as well as soldiers to patrol coastlines and islands.

The SADC must establish robust rules of engagement for anti-piracy, which should be largely consistent with those of other regions and task forces.

The MRCC enables South Africa to exercise its responsibilities to the international community by employing state-of-the-art search-and-rescue infrastructure and services. Various laden, large crude-oil carriers have been assisted to safety, their cargo safely transferred by means of ship-to-ship transfers, and the affected vessels repaired or temporarily repaired to enable them to proceed to other ports for permanent repairs.

South Africa has a well-established Pollution Prevention Strategy, and is ready to respond in case of threats to the environment or to provide assistance to vessels at risk.

South Africa acts in terms of the Indian Ocean MoU on Port State Control and has a similar agreement with the states of west Africa in the form of the Abuja MoU.

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