

SOUTH AFRICA YEARBOOK 2017/18

Transport



The Constitution of South Africa identifies the legislative responsibilities of different spheres of government regarding airports, road infrastructure, rail, maritime, road traffic management and public transport. Transport is a function that is legislated and executed at national, provincial and local government level.

The implementation of transport functions at the national level takes place through public entities that are overseen by the Department of Transport (DoT), each with a specific delivery mandate, as specified in legislation establishing these entities.

The 1996 White Paper on Transport focuses on and defines the infrastructure and operations of rail, pipelines, roads, airports, harbours, and the intermodal operations of public transport and freight.

The DoT is responsible for implementing the legislation and policies for the subsectors mentioned above by doing the following:

- conducting sector research
- formulating legislation and policy to set the strategic direction of subsectors
- assigning responsibilities to public entities and other spheres of government
- regulating through setting norms and standards
- monitoring implementation.

Over the medium term, the DoT aims to focus on improving mobility and access to social and economic activities by maintaining the provincial and national road networks, upgrading and maintaining rail infrastructure, and improving public transport for rail and road commuters.

These activities will contribute to the realisation of Outcome 6 of Government's 2014 – 2019 Medium Term Strategic Framework (MTEF) of maintaining an efficient, competitive and responsive economic infrastructure network.

Legislation

For the cross-modal functions of public transport and freight, the principle guiding documents are the National Land Transport Act, 2009 (Act 5 of 2009), the public transport strategy and the national freight logistics strategy.

The DoT is further guided by the following legislation and policies:

- The Transport Laws and Related Matters Amendment Act, 2013 (Act 3 of 2013) aims, among other things, to amend the Cross-Border Road Transport Agency (C-BRTA) to collect toll on behalf of the South African National Roads Agency (SANRAL).
- The National Land Transport Act of 2009 clarifies the concurrent roles and responsibilities of the different spheres of government in relation to public transport. It also consolidates public transport planning, service delivery, regulation and monitoring in the municipal sphere, establishes the national and provincial public transport regulators, and enhances overall transport regulatory functions.
- The incorporation of the Shosholozu Meyl train service and the Autopax long-distance bus services into the Passenger Rail Agency of South Africa (PRASA) was finalised in the Legal Succession to the South African Transport Services Amendment Act, 2008 (Act 38 of 2008).
- The National Road Traffic Amendment Act, 2008 (Act 64 of 2008) and the Cross-Border Transport Amendment Act, 2008 (Act 12 of 2008) allow for better road-traffic enforcement and improved cross-border regulation.
- The pilot project for the implementation of the Administrative Adjudication of Road Traffic Offences (Aarto) Act, 1998 (Act 46 of 1998), a demerit point system for traffic offences, has been rolled out in the municipal areas of Tshwane and Johannesburg. The system is expected to be extended to all municipal areas following the establishment of the Road Traffic Infringement Agency (RTIA), which will administer the system.
- The Civil Aviation Act, 2009 (Act 13 of 2009), was promulgated to harmonise and rationalise safety and security legislation for aviation to ensure compliance with International Civil Aviation Organisation (ICAO) standards.
- The Air Service Licensing Amendment Act, 2008 (Act 21 of 2008), addresses corporate governance issues relating to the Air Services Licensing Council. The department plans to implement the airlift strategy and improve aviation safety and compliance with the standards set by the United States of America (USA) Federal Aviation Administration's international aviation safety assessment, and by the ICAO, an organ of the

United Nations (UN).

- The Road Accident Fund (RAF) Amendment Act, 2005 (Act 19 of 2005), came into effect in August 2008 with the publication of regulations guiding, primarily, the assessment of injuries. The Act creates an equitable, affordable and sustainable system for victims of road accidents and their families. In November 2009, Cabinet approved the policy to provide benefits to road-accident victims as a form of social security and to move away from the current fault-based systems.
- The RAF (Transitional Provisions) Act, 2012, (Act 15 of 2012) provides for transitional measures regarding certain categories of third parties whose claims were limited to R25 000 under the RAF Act, 1996 (Act 56 of 1996) prior to 1 August 2008.
- In May 2014, the DoT published a revised version of the Road Accident Benefit Scheme (RABS). The Bill proposed that the RABS Administrator replace the RAF. The new regulations, rules and forms were drafted to enable a better understanding of how the proposed scheme would operate in practice. The RABS Bill provides for a new no-fault benefit scheme and a new Administrator called the RABS Administrator, which will replace the current RAF and compensation system administered by it. The RABS Bill forms part of an initiative to replace the third-party compensation system currently administered by the RAF with a new scheme that is reasonable, equitable, affordable and sustainable.

Budget

The DoT's budget for the 2017/18 financial year was R59.8 billion. The is expected to increase at an average annual rate of 6,8% over the MTEF, from R56,3 billion in 2016/17 to R68,6 billion in 2019/20. However, spending on goods and services is expected to decrease at an average annual rate of 1%, from R751,8 million in 2016/17 to R729,1 million in 2019/20, due to reprioritisations to other transport spending priorities. These include: R15,9 million to support the operations of the Maritime and Aeronautical Rescue Coordination Centre; R19 million to strengthen the regulatory capacity of the Ports Regulator of South Africa; and R6 million to develop rail economic regulation capacity in the department in preparation for the establishment

of the Single Transport Economic Regulator. As

part of Cabinet's decision to lower the national aggregate expenditure ceiling, the budget for goods and services has been reduced by R49,6 million over the MTEF period.

Role players

The DoT has established 12 public entities to deliver on certain elements of government's operational activities, namely the Airports Company South Africa (Acsa), Air Traffic and Navigation Services (ATNS), the C-BRTA, PRASA, the Ports Regulator, the Railway Safety Regulator (RSR), the RAF, the RTIA, the Road Traffic Management Corporation (RTMC), the South African Civil Aviation Authority (SACAA), the South African Maritime Safety Authority (SAMSA) and SANRAL. These entities report to the Minister of Transport. Commercial role players include Transnet, South African Airways (SAA) and SA Express (SAX).

Airports Company South Africa

Acsa is regulated in terms of the Airports Company Act, 1993 (Act 44 of 1993) and the Companies Act, 1973 (Act 61 of 1973), and is listed in terms of the Public Finance Management Act, 1999 (Act 1 of 1999).

The company was formed to own and operate the nine principal South African airports, including the three main international gateways: OR Tambo International Airport in Johannesburg, Cape Town International Airport and King Shaka International Airport in Durban.

The company is one of the concessionaires operating Mumbai International Airport in India and Guarulhos International Airport in Sao Paulo, Brazil.

Over the medium term, Acsa will continue providing safe and secure services as well as infrastructure for passengers and airlines to transport people and goods. This will be achieved through the effective use of existing airport infrastructure and investments in airport infrastructure.

Airports operated by the company are expected to accommodate 312 902 arriving aircraft and 20,9 million departing passengers a year by 2019/20, from 272 439 arriving aircraft and 19,2 million departing passengers in 2016/17. To support this growth, Acsa will continue to focus on airport maintenance

and engineering, as well as airport safety and security.

Airport maintenance and engineering costs are expected to increase over the medium term, at an average annual rate of 6,7%, from R870 million in 2016/17 to R1,1 billion in 2019/20. Airport safety and security costs per international airport are also expected to increase from R505,7 million in 2016/17 to R661,1 million in 2019/20, at an average annual rate of 9,3%.

After administration costs, expenditure on airport maintenance and engineering in all airports accounts for the bulk of the company's total expenditure over the medium term, at 14,7% or R3 billion.

Air Traffic and Navigation Services

The ATNS was established in terms of the ATNS Act, 1993 (Act 45 of 1993). Its mandate is to provide safe, orderly and efficient air traffic navigational and associated services to the air traffic management community. It does this on behalf of the State and in accordance with the ICAO standards and recommended practices, as well as the South African civil aviation regulations and technical standards.

The company's strategic goals are to:

- provide safe, efficient and cost-effective air traffic management solutions and associated services
- expand the company footprint to cover Africa and the Indian Ocean region.

ATNS has also adopted the promotion of mathematics and physical science as its flagship project, aimed at increasing the pool of potential candidates who can be attracted and trained as air traffic controllers. Since its inception in 1993, the company has renewed the majority of the national communication, navigation, surveillance and air traffic management infrastructure.

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

South Africa is one of the 36 council members of the ICAO Council, serving under Part 2 and is committed to regional aviation safety, security and environment issues.

Cross-Border Road Transport Agency

The C-BRTA was established in terms of the Cross-Border Road Transport Act of 1998. The agency's legislative mandate

requires it to:

- advise the Minister of Transport on cross-border road transport policy
- regulate access to the market by the road transport freight and passenger industry in respect of cross-border road transport by issuing permits
- undertake road transport law enforcement
- play a facilitative role in contributing to economic prosperity of the region.

The agency's estimated expenditure for 2017/18 is R214,9 million.

Passenger Rail Agency of South Africa

PRASA was established in terms of the Public Finance Management Act of 1999. Its mandate is contained in the Legal Succession to the South African Transport Services Amendment Act of 2008. The Act requires the agency to provide rail commuter services within, to and from South Africa in the public interest.

In consultation with the DoT, it also provides for long-haul passenger rail and bus services within, to and from South Africa.

Over the medium term, PRASA will aim to improve the reliability of rail services and increase rail passenger ridership. To this end, the agency will continue to make investments in its capital infrastructure, including the following:

- refurbishment and overhaul of its coaches
- acquire new rolling stock and locomotives
- modernise depots and stations
- upgrade its signalling and other rail infrastructure.

PRASA also expects to finalise and implement its turnaround strategy to improve operational performance over the medium term.

PRASA was expected to grow passenger trips from 440 million in 2016/17 to 484 million in 2019/20 for Metrorail, and passenger numbers from 484 000 in 2016/17 to 804 000 in 2019/20 for Shosholozza Meyl.

The anticipated growth in passenger numbers is expected to increase fare revenue from R2,8 billion in 2016/17 to R4,3 billion in 2019/20, at an average annual rate of 15,7%. The agency also derives revenue from transfers from the DoT and rental

i The Airports Company South Africa (ACSA) is ranked among the 10 most punctual airports in the world.

ACSA's achievement, among others, is attributed to its world-class state-of-the-art Airport Management Centre (AMC), which is the nerve centre of the airport's operations.

The AMC facilitates a seamless coordination between airlines, baggage handlers, security staff, customer service staff, aircraft engineers and marshals.

The list was revealed by the OAG Aviation Worldwide, a UK-based agency which monitors on-time performance among airlines and airports globally.

OR Tambo International Airport achieved eighth place in the large airports category, while Cape Town International Airport ranked sixth in the medium airports category. King Shaka International Airport in KwaZulu-Natal was ranked 10th in the small airports category.

OAG Aviation Worldwide tracks a minimum of 80% of the flights that operate at an airport for it to be included in the Punctuality League.

According to the League, the top 20 airports in the large airport category ensured that 83,9% arriving and departing flights operated under 15 minutes of their scheduled arrival and departure times last year.

income from property. Total revenue is expected to increase at an average annual rate of 7,8%, from R10,9 billion in 2016/17 to R13,7 billion in 2019/20.

PRASA is in the process of modernising its rail services. This includes buying new rolling stock for the Metrorail commuter service and locomotives for the agency's long-distance mainline passenger service, as well as upgrading stations and infrastructure.

Although Cabinet approved a reduction of R1 billion on transfers to the agency over the medium term, R3 billion will be reprioritised over the period for the operations of the long-distance mainline passenger service, and R2,7 billion will be reprioritised for the renewal of rolling stock in 2019/20.

Spending on Metrorail is expected to subsidise more than 484 million passenger trips per year in the period ahead, and spending on the mainline passenger service is expected to subsidise 2,3 million passengers over the medium term.

In February 2018, PRASA reintroduced its Main Line Passenger Services between Johannesburg and Musina.

The service was withdrawn in 2014 due to the rationalisation of train services.

The train will have a dining car that provides meals, tea/coffee and refreshments at an affordable price. The train stops at intermediate stations such as Germiston, Pretoria, Hammanskraal, Bela Bela, Mokgophong, Mokokopane, Polokwane, Soekmekaar, Makhado and finally Musina.

The journey between Johannesburg and Polokwane takes eight hours and to Musina, ten hours. The train will also be used by Zimbabwean customers crossing the border after alighting in Musina. The reintroduction of the Main Line Passenger Services marks government's commitment and endeavour to speed up the implementation of an integrated public transport system.

The long distance services will create a seamless, cost-effective and a fully integrated solution not only to facilitate human movement but also to strengthen the country's economic ties with the rest of Africa.

National Ports Regulator

The NPR 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 Transnet National Ports Authority (TNPA).

In accordance with this mandate, the NPR performs certain functions and activities including:

- regulation of pricing and other aspects of economic regulation
- promotion of equity of access to ports facilities and services
- monitoring the industry's compliance with the regulatory framework
- hearing any complaints and appeals lodged with it.

In addition, the NPR is a key component of the ports regulatory architecture envisaged in the National Commercial Ports Policy.

The TNPA is the largest port authority in Africa. It owns and manages 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. Besides being the port landlord, it 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.

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.

The NPR functions with certain statutory and non-statutory committees that concentrate on aspects of its mandates. The NPR is an independent regulator, within the context of the prevailing policy and regulatory framework and it is funded by fiscal allocation from national government.

The NPR performs functions that relate mainly to the regulation of pricing and other aspects of economic regulation, the promotion of equal access to ports facilities and services, the monitoring of the industry's compliance with the regulatory framework, and the hearing of any complaints and appeals lodged with it. The regulator's estimated expenditure for 2017/18 will be R22,8 million.

Railway Safety Regulator

The RSR is the custodian of railway safety in South Africa.

Its functions include:

- issuing and managing safety permits
- conducting inspections and audits
- investigating railway accidents
- developing regulations, safety standards and related documents which form the basis of the regulatory regime
- issuing notices of non-conformance and non-compliance
- imposing penalties for non-compliance with the Act and safety standards adopted by the board of directors of the RSR.

The RSR is central to the safety of both passengers and the environment in the railway industry, and to that end has taken a bold stand to adopt the vision "Aspiring to Achieve Zero Occurrences". While collisions still remain a challenge, in 2015/16 the number of collisions between trains declined by 44% from 2014/15.

Road Safety and Road Accident Fund

The mandate of the RAF is derived from the RAF Act of 1996 as the payment of compensation for loss or damage wrongfully caused by the driving of motor vehicles in South Africa.

The socio-economic mandate of the fund is to reintegrate victims of road accidents into society from a health and economic perspective, and to protect wrongdoers and their families from financial ruin.

The fund delivers on this mandate by:

- paying the medical and related costs required to restore road accident victims to health
- compensating the victim/s or their dependants for income or support lost as a result of the accident
- indemnifying the wrongdoer from liability
- paying general damages in instances where a person suffers a serious injury in a road traffic accident
- paying funeral expenses to families when a person dies as a result of a road traffic accident.

The fund's strategic goals over the medium term are to:

- develop a legislative dispensation that is aligned with the principles of social security
- ensure that the organisation is solvent, liquid and sustainable by 2020
- ensure that the organisation is customer-centric, operationally effective and efficient by 2017.

The key objectives of the RAF Road Safety Strategy are to reduce the high rate of road accidents by becoming proactively involved in activities aimed at addressing road-safety behaviour and promoting road-safety principles and effective law enforcement.

The RAF's Road Safety Strategy also creates a platform to support the RAF core business, since post-crash care is one of the pillars prescribed by the Global Road Safety Commission.

It aims to:

- increase awareness of the RAF's business and service offering by conducting ongoing campaigns
- create a platform for all transport industry stakeholders to assist the victims of road accidents and their family members
- enhance the overall business strategy by identifying key stakeholder groups and developing effective stakeholder

engagement channels to reach target audiences in a proactive manner.

The RABS Bill, which provides for the establishment of a new administrator, the RABS Administrator, to replace the current RAF, was published for public comment in 2016. Consultations sessions were held throughout the country with various stakeholders. The Bill proposes a comprehensive social security safety net scheme that is not fault-based.

It will allow expanded access to much-needed benefits to road users. These include the public and private transport passengers, widows, orphans and many other dependants who were previously and currently are excluded by virtue of fault.

Road Traffic Infringement Agency

The RTIA promotes road traffic quality by providing for a scheme to discourage road traffic infringements to support the prosecution of offences in terms of national and provincial laws relating to road traffic, and implements a points demerit system. The agency's estimated expenditure for 2017/18 will be R387,9 million.

The RTIA's objectives include:

- administering the procedures to discourage the contravention of road traffic laws and to execute the adjudication of infringements
- enforcing penalties imposed against people contravening road traffic laws
- providing specialised prosecution support services
- undertaking community education and community awareness programmes to ensure that individuals understand their rights and options.

The pursuit of this mandate entails the management and rollout of the Aarto Act of 1998, which includes the implementation of the driver points demerit system and rehabilitation programmes.

Road Traffic Management Corporation

The RTMC pools national and provincial government resources for the provision of road traffic management. This includes cooperative and coordinated road traffic strategic planning, regulation, facilitation and law enforcement. The RTMC's estimated expenditure for 2017/18 will be R736,7 million.

South African Civil Aviation Authority

The SACAA is mandated with controlling, promoting, regulating, supporting, developing, enforcing and continuously improving levels of safety and security throughout the civil aviation industry.

The SACAA presented the revised Cross-Functional Accident Reduction Plan aimed at reducing accidents in the general aviation sector, in a coordinated manner.

The new Cross-Functional Accident Reduction Plan features the following:

- in-depth statistics gathered, however a number of accident investigations remain open to complete the analysis
- although not yet comprehensive, industry activity is being captured by the SACAA to inform future strategies
- expanded scope of stakeholder consultation prior to the finalisation of the strategy
- more in-depth experience in dealing with accidents.

The revised Cross-Functional Accident Reduction Plan still seeks to improve pilot competency development within the training environment with the authority intensifying its oversight role over pilot training schools.

South African Maritime Safety Authority

SAMSA and the DoT are working on mobilising the maritime sector, organising its industries and drawing the attention towards what the sector can contribute to the achievement of government's social and economic goals.

SAMSA has successfully pulled together elements of the sector and created a cohesive sense of the boundaries and drivers of the country's performance, with regional and international positioning options.

The maritime economic sector is of central and strategic importance to the National Growth Path (NGP), the BRICS bloc and South Africa's influential role within the African Union (AU), India-Brazil-South Africa bloc and the Southern African Development Community (SADC).

The widening trade balance is to no small measure because of a lack of focus on shipping logistics and maritime transport. South Africa is the only country in all these partnerships that has no focused shipping and maritime transport sector policy and strategy, and owns no ships.

By August 2015, three cargo vessels were sailing the country's flag, while the applications for an additional 12 ships was under consideration.

The increase in South Africa's registered commercial cargo vessels is a strategic move to expand both training opportunities for the country cadets as well as business trade opportunities.

Through SAMSA, the DoT continued investing in intelligent surveillance breakthrough technologies in ship-tracking and maritime traffic management.

In the two years since the launch of Operation Phakisa, the country increased its focus on the opportunities provided by its more 3 000 km of coastline.

SAMSA struck a partnership with the Nelson Mandela Metropolitan University and the Department of Higher Education in a National Cadetship Programme. This has resulted in 124 cadets being placed on 18 partner vessels.

South African National Roads Agency SOC Limited

South Africa has 750 000 km of roads – the 10th longest road network in the world and by far the longest in Africa.

At the core of this network is the spine – a national network of 22 197km, which is managed by SANRAL. It stretches from Beit Bridge in the north to the southern-most parts of the continent, and from Oranjemund to the KwaZulu-Natal coast.

Of this, 19 245km (87%) are non-toll roads and 2 952km (13%) are toll roads.

SANRAL's principal task is to plan, design, construct, operate, rehabilitate and maintain South Africa's national roads to support the country's socio-economic development goals and facilitate development, commerce, mobility and access.

In doing so, the entity is responsive to changes to its environment and has finalised a long-term strategy – Horizon 2030.

This includes a draft Transformation Policy which has the aim of promoting small, emerging, black construction companies and related industries, while also better supporting the transformation of the industry to reflect the demographics of the country.

Transnet Limited

Transnet is a focused freight-transport and logistics company wholly owned by the South African Government.

It comprises the following operating divisions:

- Transnet Freight Rail
- Transnet Rail Engineering
- Transnet Port Terminals
- Transnet Pipelines
- TNPA.

South African Airways

SAA is the leading carrier in Africa, serving 56 destinations, in partnership with SA Express, Airlink and its low-cost carrier, Mango, within South Africa and across the continent, and nine intercontinental routes from its Johannesburg hub. It is a member of the largest international airline network, Star Alliance.

SAA is the leading carrier in Africa, serving 26 destinations across the continent, as well as major destinations within South Africa and internationally from its Johannesburg hub at OR Tambo International Airport and is a member of the largest international airline network, Star Alliance.

SAA's core business is the provision of passenger airline and cargo transport services together with related services, which are provided through SAA and its four wholly owned subsidiaries:

- SAA Technical
- Mango, its low-cost carrier
- Air Chefs, the catering entity of SAA
- South African Travel Centre.

SAA's long-term Turnaround Strategy is a three-phase implementation approach with continuous and cyclical monitoring and review over a 20-year period.

One of the key elements of the strategy was increased focus and emphasis on governance and accountability. SAA believes these will go a long way in restoring the airline's reputation in the global markets and among its stakeholders.

This makes SAA one of the world's leading carriers in the areas of environmental responsibility and sustainability.

As part of its Five-Year Corporate Plan aimed at achieving and

maintaining financial sustainability in the shortest time possible, SAA signed a code-share agreement with TAAG Angola Airlines. The agreement was effective from 15 January 2018. It will see SAA code-sharing with TAAG on their direct services between Johannesburg and Luanda and between Cape Town and Luanda. In return, TAAG Angola Airlines will code-share with SAA on its direct services between Johannesburg and Luanda and will include Johannesburg and Harare, Johannesburg and Lusaka, and Johannesburg and Hong Kong in the near future.

Interline agreements between airlines ease travel for customers who fly on more than one airline to reach their destination, while the airlines save on operation costs.

A code-share agreement enables SAA to offer flights with the SA code on flights operated by TAAG, and TAAG will in turn be able to offer flights with the DT code on flights operated by SAA.

In January 2015, the SAA became the first airline globally to install the Satellite Authorisation System (SatAuth) that allows for secure credit-card transactions anywhere in the skies.

SAA installed the device on one of its Airbus A340-300 aircraft at the SAAT maintenance facility in Kempton Park, Johannesburg.

The system also provides pinpoint accurate aircraft tracking services for operational purposes. It will allow for secure credit card transactions at any point and real-time positioning of any flight, anywhere, impacting fuel-saving interventions in-flight as well as providing full visibility of actual flight paths versus planned routing at any time. SatAuth, the first product of its kind, was developed in South Africa.

SAA is planning to install SatAuth across its entire long-haul fleet over time.

SA Express

SAX is a domestic and regional passenger and cargo carrier established on 24 April 1994. Although the airline is operationally independent of SAA, its flights are incorporated within the strategic alliance with Airlink and SAA.

SAX became the first airline in the country to adopt a new method of taxiing after landing that burns less fuel and cuts fuel emissions.

This simple but unusual method of using only one engine to

taxi off the runway to the terminal after landing, cuts the amount of fuel burned by an average of 20 ℓ on every landing.

A flight from Johannesburg to Bloemfontein typically uses 1 000 ℓ of fuel, so saving 20 ℓ is a reduction of 2%, helping the airline to become more cost-efficient.

Programmes and projects

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 of the logistics value chain. This scheme also supports the DoT's National Freight Logistics Strategy.

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 the RTMS in South Africa. It comprises individuals representing major industries and aligned stakeholders within the country.

Road safety and road infrastructure are public concerns subject to strict regulation by government. Overregulation, road deterioration and high accident rates pose a significant threat to the long-term sustainability and global competitiveness of the road logistics value chain.

This prompted users of road haulage (consignors and consignees) and providers of road haulage (hauliers) to jointly develop strategies aimed at protecting the road network, improving road safety and transport productivity for the benefit of the country's citizens and the industry itself.

The RTMS is a self-regulating scheme with standard rules that aim to become the business norm, supporting the principles of good corporate governance and ensuring that no one gains an unfair advantage by poor compliance to transport regulations.

Furthermore, industry recognises its critical role in the economy's growth. Efficient movement of goods between a country's centres of production and its shipping ports boosts competitiveness in international markets.

National Transport Master Plan

The long-term vision of NATMAP 2050 is to sustain South Africa's projected growth and focus on integrated transport planning to ensure that the different modes of transport complement each other.

Government policies, plans and programmes, including the NDP and the NGP, enjoin the nation to create a social contract to help propel South Africa to a higher developmental trajectory, as well as build a more cohesive and equitable society.

The transport sector is critical to realising the implementation of the 2030 vision of advanced economic development, job creation, growth and provision of equitable access to opportunities and services for all, while fostering an inclusive society and economy.

Public Transport Strategy

South Africa is on its way to becoming the first country in Africa to have rapid public transport networks. Such networks will not only change the face of the country, but also boost economic development, job creation and tourism.

South Africa's Public Transport Strategy, which comprises a multibillion rand transport infrastructure plan, is set to entirely reshape travel in South Africa. At the core of the plan is a high-quality integrated mass rapid public transport network that includes rail, taxi and bus services. The strategy aims to accelerate the improvement in public transport by establishing integrated rapid public transport networks (IRPTNs), which will introduce priority rail corridors and Bus Rapid Transport (BRT) systems in cities.

The Public Transport Strategy is expected to improve public transport services for more than half the country's population.

The long-term goal of the strategy is to have 85% of a metropolitan city's population within 1 km of the network, and provide a transport service that is clean, comfortable, reliable, fast, secure, safe and affordable.

As part of government's commitment towards rural development, the S'hamba Sonke Programme addresses road maintenance on secondary roads and rural roads, with particular emphasis on repairing potholes, using labour-intensive methods of construction and maintenance.

Electronic National Traffic Information System (eNaTIS)

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

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

The system delineates the lifecycle of a vehicle, from the factory floor to the scrap yard.

It is compulsory for all new motor vehicles and motor vehicles requiring a police clearance to be microdotted. The registration of a motor vehicle introduced onto the eNaTIS by the manufacturer, importer or builder is only allowed if the microdot information was loaded onto the system.

The DoT and the South African Police Service (SAPS) would enforce the requirements through eNaTIS.

In November 2016, the Constitutional Court ordered control of the eNatis Traffic Management System be handed over to the RTMC.

S'hamba Sonke Road Maintenance Project

The S'hamba Sonke (meaning "Walking Together") programme was launched by the DoT in 2011 to address the backlog in road repairs.

The programme, through the Provincial Roads Maintenance Grant, consists of three budget components. The largest enables provinces to expand their maintenance activities. The other components allow provinces to repair roads damaged by floods and cover the cost of rehabilitation work created by coal haulage activities in Mpumalanga and Gauteng.

Through this programme, government continues to address the spatial inequalities, create job opportunities, improve rural transport and its infrastructure, and also open the rural economy to new investment and development while also providing the much needed maintenance to the road infrastructure.

This programme has created 137 887 jobs, of which 28 933 are for youth, 54 918 taken by women and 180 are done by people living with disabilities.

Scholar transport

In recognition of the challenges confronting learners who attend school far away from their homes, Cabinet approved the Learner Transport Policy in May 2015.

Its aims are to:

- improve access to quality education by providing safe, decent, effective and integrated sustainable learner transport
- improve access to quality education through a coordinated and aligned transport system
- improve planning and implementation of an integrated learner transport service
- manage and oversee the implementation of an integrated learner transport service
- ensure an effective management of learner transport system
- provide for a safe and secure transport environment for learners through cooperation and collaboration with law enforcement authorities.

Non-motorised transport (NMT)

The promotion of NMT is mainly aimed at increasing transport mobility and accessibility, mainly in rural areas. The DoT has broadened its Shova Kalula Project into a more comprehensive NMT undertaking that incorporates, among other things, cycling and animal-drawn carts.

The Shova Kalula (“Pedal Easy”) National Bicycle Programme aims to improve mobility and access to basic needs as well as social and economic opportunities for people especially in rural, remote and poorly resourced areas, including learners. Since the introduction of Shova Kalula, the DoT, in partnership with provinces, municipalities and private sector, has distributed more than 177 310 bicycles to destitute learners who travel long distances to their respective schools.

The project forms part of government’s action programme and is expected to contribute to its antipoverty strategy and second-economy interventions. It is believed that these initiatives improve rural communities’ mobility and access to economic opportunities.

The DoT’s aim is to distribute one million bicycles a year across South Africa.

The Shova Kalula Project also incorporates microbusinesses

that sell, repair and maintain bicycles to ensure the project’s sustainability.

In February 2016, the Department of Environmental Affairs and KfW German Development Bank launched Phase 2 of the Non-Motorised Transport Programme as part of South Africa’s National Climate Change Response Policy, which sets the country’s vision for an effective climate change response and the long-term transition to a climate-resilient and low-carbon economy and society.

Phase 1 of the programme was initiated in 2011 and focused on developing bicycle routes, parking facilities and rental stations with a view to promote non-motorised transport. The intended outcome was to reduce carbon emissions, improve air quality and advocate behavioural change towards a cleaner healthier lifestyle.

Given the success of Phase 1, the Department of Environmental Affairs secured a grant of €5 million to finance a five-year NMT Phase 2 from KfW Development Bank, within the framework of the German-South African bi-national Financial Cooperation.

Phase 2 will comprise the extension of the existing bicycle networks to contribute towards efficient intermodal transportation networks within the cities. It will further include associated services such as the promotion of small, medium and micro-enterprise development through the establishment of bicycle empowerment centres.

Taxi Recapitalisation Programme (TRP)

The TRP is an intervention by Government to bring about safe, effective, reliable, affordable and accessible taxi operations by introducing new taxi vehicles designed to undertake public transport functions in the taxi industry.

The TRP is not only about scrapping old taxi vehicles, but also about how best to help operators to benefit constructively through empowerment. The compulsory requirements are also meant to ensure passenger comfort.

Through the TRP, government has ensured the following changes:

- introduction of safety requirements for passengers
- comfort for passengers by insisting on the size and number

of seats

- promotion of accessibility on the size and number of seats
- branding and colour-coding of taxi vehicles so that legal taxis can be identified and differentiated from illegal ones, and so that members of the public can easily identify a taxi vehicle.

By June 2015, the DoT had scrapped 61 254 old taxis with a total payment of R3,4 billion for scrapping allowances.

Resources

Roads

National roads

Government is responsible for overall policy, while SANRAL is responsible for road-building and maintenance.

The DoT 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.

Provincial roads

Provincial governments are responsible for planning, constructing and maintaining roads and bridges, except those falling under SANRAL or local governments. The DoT helps 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. SANRAL manages some 1 832 km of these toll roads.

In its endeavour to continue the expansion and maintenance of the comprehensive national road network, SANRAL will continue the selective expansion of toll roads.

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

Rail Gautrain

The Gautrain is an 80 km-long mass rapid transit railway system that links Johannesburg, Pretoria and OR Tambo International Airport.

It was built to relieve traffic congestion in the Johannesburg-Pretoria traffic corridor and offer commuters a viable alternative to road transport, as Johannesburg had limited public transport infrastructure.

The Gauteng 25-Year Integrated Transport Master Plan will ensure integration of transport with spatial patterns as well as the integration between various transport modes to transport people effectively.

The Gautrain ferries more than 60 000 people a day (including weekends) or 1,2 million people a year. It celebrated its 6th anniversary in June 2016, reaching a milestone of close to 80 million passenger trips.

Some 19 new Gautrain stations were in the pipeline by May 2017. The Gautrain Management Agency is planning to extend the rail route by 150 km over the following 20 years, including routes through Randburg, Fourways, and Soweto.

This expansion is expected to create 211 000 jobs.

A feasibility study released in March 2017. This included demand modelling to determine transport needs for Gauteng in 2025 and 2037, which showed that the “cost of doing nothing” in the province will lead to major road congestion in 2037, at which stage cars will travel at an average of 15 km/h due to doubling of car growth.

The feasibility study identified the following main links and stations of the Gautrain rail network extensions:

- On the link between Jabulani via Cosmo City and Samrand to Mamelodi, stations include Roodepoort, Little Falls, Fourways, Sunninghill, Olievenhoutsbosch, Irene, Tshwane East and Hazeldean.
- The link between Sandton and Cosmo City has a station at Randburg.
- On the link between Rhodesfield and Boksburg there will be a station at East Rand Mall and possible link-up with the OR Tambo International Airport Midfield terminal development.
- A future link from Cosmo City to Lanseria Airport.

Moloto Rail Development Corridor

The Moloto Rail Project’s main objective is to ensure that passenger rail as the backbone of an integrated multi-modal transport system using proven state of the art rolling stock and equipment. In addition this rail project would serve as a catalyst for economic development initiatives within and around the Corridor resolving challenges of safety, efficiency, reliability, affordability and overall integration with other public transport services.

The Moloto Development Corridor has its main objective to increase speed for buses from 70 km/h to 120 km/h and from 160 km/h to 200 km/h for standard gauge trains, thereby reduce travel time for commuters. This part of government’s policy to develop an intermodal transportation solution and involves the following catalytic projects:

- 13 new train stations
- Koedoespoort Rapid Rail alignment (117 km of dual track)
- modal integration points
- surface 240 km of feeder routes
- Tshwane Bus Rapid Transit
- new dual 67-km carriageway from Siyabuswa to Moloto
- Mamelodi East and Greenview Pienaarspoort alignment.

Civil aviation

South Africa’s nine major airports are:

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

Through the launch of the Pilot Cadet Training and Development Programme for those who had been previously disadvantaged, the three state-owned airlines – SAA, SAX and Mango – will strengthen their role as engines of economic growth in the developmental state, and as leaders in the transformation of the aviation sector.

Airlift Strategy

The Airlift Strategy introduced 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.

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.

The department also developed the Airlift Implementation Plan, which provides a clear framework and capacity targets to be met.

Airlines

Several domestic airlines, as well as a number of smaller charter airline companies, operate in South Africa. SAA, British Airways (BA)/Comair, SAX, SA Airlink and Inter-Air operate scheduled air services within South Africa and the Indian Ocean islands.

In addition to serving Africa, SAA also operates services to Europe, Latin America and the Far East. Other airlines operating in the country are Kulula and Mango. 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.

Freight transport

Ports

Along its 3 000 km-long coastline, South Africa has eight commercial seaports: Richards Bay, Durban, East London, Ngqura, Port Elizabeth, Mossel Bay, Cape Town and Saldanha.

South Africa is situated on a major sea route, which facilitates the safe and secure movement of about 500 Mt 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 nine commercial ports are crucial to South Africa's transport, logistics and socioeconomic development. About 98% of South Africa's exports are conveyed by sea.

The Port of Durban is the busiest container terminal in Africa and the second busiest in the southern hemisphere following Melbourne, Australia. Over 4 000 commercial vessels called at the port's 57 berths in 2015. The Ports Authority alone employs 6 200 people at the Durban Port, with an estimated 30 000 people employed indirectly.

Richard's Bay is the busiest port in South Africa by tonnage and is one of the top two coal-handling ports in the world. Richard's Bay focuses on bulk cargo handling while the Durban Port focuses on general cargo. It has also been earmarked for expansion projects with R3,7 billion set aside for mobile and quayside equipment, as well as weighbridges. Safety-critical, environmental and legal-compliance projects would also be carried out.

Cape Town, located at the southern-most point of Africa, is ideally positioned as a hub terminal for cargo to South America and the Far East. West/East Africa cargo has grown substantially,

making the Cape Town Container Terminal the terminal of choice for trans-shipment cargo. The terminal handles 3 161 vessels per year for a gross tonnage of 44 501 297.

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 in the pipeline sector is ongoing. Construction on 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 MI 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 MI of fuel and diesel, a maximum of 1,5 MI is diverted to Mbombela. The remainder is transported to Kendal.

More than 60% of South Africa's liquid-fuels demand lies within the Durban-Johannesburg corridor. The Durban-Johannesburg pipeline is no longer adequate for the transportation of the required volumes of petroleum products from the coast to the inland regions.

The multiproduct pipeline, being constructed at a cost of R23 billion between Durban and Johannesburg, will replace the existing Durban-Johannesburg pipeline.

Freight

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 by 2020. For its part, organised business will continue to promote greater use of rail freight by companies.

Transnet Freight Rail (TFR)

TFR is the largest division of Transnet. It is a world-class heavy haul freight rail company that specialises in the transportation of freight.

The company is proud of its reputation for technological leadership beyond Africa as well as within Africa, where it is active in some 17 countries.

TFR has positioned itself to become a profitable and sustainable freight railway business, assisting in driving the competitiveness of the South African economy.

The company is made up of the following six business units:

- Agriculture and Bulk Liquids
 - Coal
 - Container and Automotive
 - Iron Ore and Manganese
 - Steel and Cement
 - Mineral Mining and Chrome.
- 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
 - 30% of the core network carries 95% of freight volumes
 - has annual revenues of over R14 billion
 - will invest R35 billion in capital over the next five years
 - has 38 000 employees countrywide.

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.

Maritime

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

The DoT is responsible for South Africa's maritime administration and legislation, which SAMSA controls on its behalf in terms of the SAMSA Act of 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, United Kingdom (UK), with respect to:

- ship construction
- maritime training and training curriculums
- watch-keeping
- certification of seafarers
- manning and operation of 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, human resources 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 and as cross-traders to other parts of the world.

South African Maritime Training Academy (SAMTRA)

The SAMTRA at Simon's Town 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 DoT, 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.

As part of an initiative to reduce the vacancy rate of at least 45 000 jobs in the maritime industry, 12 Further Education and Training (FET) colleges across the country started to offer courses aimed at equipping young people for a career in the industry.

The FET colleges will meet at least 80% of the industry's skills demands, producing artisans such as riggers, welders and boiler makers. Annually between 1 200 and 1 600 students enter the maritime industry after completing their studies.

Through its involvement in the AU, South Africa was leading the development of an integrated African Maritime Strategy.

Public transport

The DoT continues to administer subsidies for buses and other subsidised forms of public transport.

This includes world-class airports, upgraded train stations, refurbished coaches and luxury buses, taxis and IRPTNs such as the BRT System.

Integrated public transport networks

Bus Rapid Transport

The Tshwane Rapid Transit (A Re Yeng) started operating in 2014.

All A Re Yeng buses are equipped with free wi-fi on the trunk route, full air conditioning, low-floor technology which supports Euro V emission levels, vehicle stability and a cashless automated electronic system that is fully monitored by camera and sensors. The buses are operated by qualified former taxi drivers recruited from the various taxi associations in the city.

The A Re Yeng bus project will be rolled out in phases, culminating in the construction of 80-km long dedicated lanes. The route will comprise 51 bus stations that stretch from Soshanguve to Mamelodi, passing through the city centre and surrounding suburbs.

The City of Tshwane's launch follows on Johannesburg's Rea Vaya and Cape Town's MyCiti Integrated Rapid Transit systems.

The City of Johannesburg's Rea Vaya bus system route was operational since October 2013.

The route runs from Soweto and passes through Noordegesig, New Canada, Pennyville, Bosmont, Coronationville, Newclare, Westbury, Westdene, Melville, Auckland Park and Parktown; and links to the city centre.

The GO!Durban system was launched in 2015. Once completed, the GO!Durban will see minibus vehicles collect people from residential areas to transfer stations where, they will get buses to their preferred destinations.

About R20 billion set aside for transformation of Durban's public transport system is expected to connect 600 000 commuters across the city to nine public transport corridors by 2027.

Infrastructure development

It is the mandate of the PICC to oversee the implementation of infrastructure projects that stimulate social and economic growth.

South Africa's infrastructure plans include economic and social infrastructure that will unlock key mineral resources and exports. The PICC coordinates this infrastructure plan.

Rail

PRASA is at the forefront of government efforts to transform public transport in South Africa, with rail services forming the backbone of the network.

PRASA's main responsibility is to integrate intermodal facilities and services into public transport solutions that optimise the performance of the whole transport system.

The main thrust of the rail policy will focus on investment and new modern technology. It will address the regulatory framework required, particularly economic regulation, infrastructure and operations. It will also make proposals regarding the investment required to restore rail to its rightful place in the country's economy.

By 2020, existing logistics corridors are expected to be expanded upon and new corridors will have been established. A world-class export-oriented rail manufacturing sector and 6 405 km of rail are expected to have been replaced for the general freight, coal and ore lines, increasing the rail network capacity by 149,7 Mt.

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

Ports

Transnet Port Terminals is expected to spend R33 billion over the next six years on upgrading and expanding South Africa's ports, as part of a massive state-led infrastructure drive aimed at boosting the country's economic growth.

The expansion projects will see major increases in the container-handling capacity of the ports in Durban, KwaZulu-Natal and Ngqura outside Port Elizabeth in the Eastern Cape.

Container capacity is also being created in other terminals, such as the Durban Ro-Ro and Maydon Wharf Terminal, through the acquisition of new equipment, including mobile cranes and various infrastructure upgrades.

The port is said to be the deepest container terminal in sub-Saharan Africa and will accommodate the new generation of giant container ships that regularly visit the country's shores.

Given its positioning and size, the Ngqura Trade Port will go a long way in boosting South Africa's trade with other countries in the region and is expected to support the country's new growth path. The planning of the Ngqura has been integrated with that of the Coega Development Zone.

The bulk handling capacity at Ngqura, Richards Bay in KwaZulu-Natal, and Saldanha in the Western Cape will also come in for major expansion.

Safety-critical, environmental and legal compliance projects are also in the pipeline. Some R1,2 billion will be spent on creating new capacity, including new storage areas, at Richards Bay. Transnet is also pursuing the re-engineering of the port to create additional capacity for bulk products at the terminal.

Saldanha's iron-ore bulk facility, which has undergone significant expansion in recent years, will be further expanded, taking its capacity to 82 Mt a year.

Safety of travellers

Arrive Alive

Government's Arrive Alive Road-Safety Campaign has become an important part of the DoT's road safety projects and awareness efforts, especially during critical periods for road traffic management such as the Easter long weekend and the December holidays.

At the end of 2015, it was announced that the RTMC could not use the Arrive Alive campaign anymore, as it had been registered as a brand. The safety campaign remains in place, operating under the name 365 Days of Road Safety Programme, which would focus on creating awareness all year round.

The goals of the campaign are 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.

The campaign emphasised that the reduction in road deaths was urgent and non-negotiable.

UN Decade of Action for Road Safety 2011 – 2020

South Africa is a signatory to the UN Decade of Action for Road Safety 2011 – 2020. The UN General Assembly resolution proclaiming a Decade of Action for Road Safety 2011 – 2020 was tabled by the Government of the Russian Federation and co-sponsored by more than 90 countries.

The initiative aims to save lives by halting the increasing trends in road traffic deaths and injuries world-wide.

It is based on the following pillars:

- Pillar 1 – Building road safety management capacity
- Pillar 2 – Improving the safety of road infrastructure and broader transport networks
- Pillar 3 – Further developing the safety of vehicles
- Pillar 4 – Enhancing the behaviour of road users
- Pillar 5 – Improving post-crash response.

As part of the Decade of Action for Road Safety 2011 – 2020 campaign, Government is targeting the reduction in fatalities by 50% in 2020.

South Africa's efforts are focused on four key areas:

- fatigue or driver fitness
- drinking and driving
- use of seat belts
- pedestrian safety.

A key aspect of the integrated Road Safety Management Programme is increasing pedestrian safety. In planning and design, SANRAL provides for interventions such as traffic calming, safe stopping areas for public transport, and pedestrian bridges. The DoT also engages communities adjacent to national roads to find solutions to pedestrians' needs.

To contribute to safety on the roads, SANRAL has developed a database of projects that need to be implemented in areas that are hazardous to pedestrians. The solutions range from pedestrian bridges, pavements, road safety education and traffic calming measures.

When it comes to managing safety on freeways, SANRAL's incident management system, supported by central coordination centres, embraces interaction between emergency services and law enforcement agencies on all declared national routes.

Passenger rail safety

The National RSR Act, 2002 (Act 16 of 2002), is the enabling legislation for setting up 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, 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.

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.

Since the RSR's creation, there has been 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 Southern African Railway Association membership, the RSR plays a leading role in regional safety issues. The RSR played a central part 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.

Maritime safety

An estimated 7 000 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 Maritime Rescue Coordination Centre (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.

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 threat around the Horn of Africa and SADC waters detrimentally affects the SADC's trade and economy.

The SADC's Maritime Strategy entails a regional partnership with all member states contributing within their means. Not all

members necessarily have the essential maritime and military capabilities, but they still contribute in other ways by providing land-based equipment such as radar and soldiers to patrol coastlines and islands.

The SADC has established robust rules of engagement for anti-piracy, which are largely consistent with those of other regions and task forces.

Regarding the legal framework, SADC member states are expected to:

- ratify or accede to international maritime conventions/treaties/regimes and the incorporation of these into their national law
- put in place comprehensive legal regimes at national level, consistent with international law, to prosecute pirates
- stop the practice of "catch-and-release" of pirates since it allows experienced pirates to execute more sophisticated acts of piracy
- strengthen and harmonise regional and domestic legal frameworks for arrest, awaiting trial detention, prosecution and imprisonment or repatriation of pirates
- take responsibility for its own maritime security in cooperation with other regions, task forces, navies and role players.

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.

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 Memorandum of Understanding (MoU) on Port State Control and has a similar agreement with the states of West Africa in the form of the Abuja MoU.

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 (SAR) Act, 2002 (Act 44 of 2002). The Act gave the organisation a statutory mandate to coordinate all SAR activities within South Africa's area of responsibility.

South Africa is responsible for a huge SAR area, representing

about 10% of the globe and about 28,5 million km² in total. To manage this vast area, the South African area is divided into the aeronautical and maritime SAR areas.

The aeronautical SAR region covers Lesotho, Namibia, South Africa and Swaziland, and associated flight information regions.

The maritime SAR area 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.

SAR only works 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 SAR services within their territories to ensure that people in distress get assistance.

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 way across a wide area. Collaboration also reduces the overall cost of SAR operations.

The SADC approached the ICAO and the IMO to fund the training requirements identified for the region.

In collaboration with the Department of Environmental Affairs, the DoT is also planning to create SAR capacity in the Antarctic region.

The DoT, 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.

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.