

TRANSNET



TRANSNET FREIGHT RAIL 2020



Contents

- 2 **Highlights**
- 4 **Business overview**
- 6 **Regulatory environment**
- 6 **Strategic context**
- 7 **Operational context**
- 7 **Operational performance**
 - 7 Overview of key performance indicators
 - 12 Overview of key operational performance indicators
- 15 Sustainable developmental outcomes
- 17 **Outreach programme**
- 18 **Key risks and mitigating activities**
- 19 **Opportunities**
- 20 **Abbreviations and acronyms**



Highlights

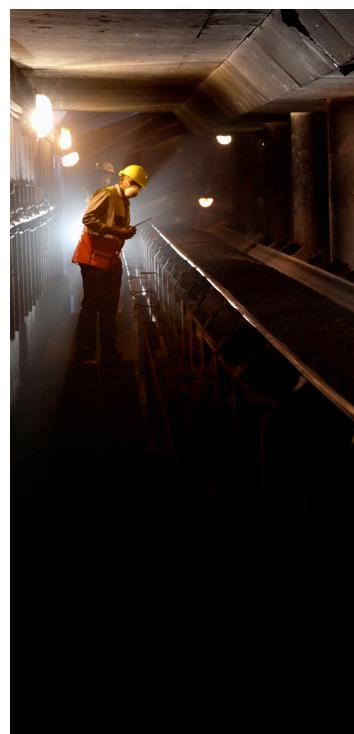
The South African economy remained under pressure during the 2019/20 financial year, which damped growth in the transport industry and negatively affected the overall performance of Freight Rail. The financial year was also characterised by systemic challenges that hampered projected volume growth. The second quarter of the financial year was particularly challenging, with deteriorating economic conditions that contributed to commercial challenges in many market segments, mainly those serving the construction and manufacturing industries. The operational performance was further impeded by increased security incidents, adverse weather patterns and rail network conditions on certain sections of key corridors. The combination of these factors contributed to a 1,28% decline to 212,37 mt (2019: 215,1 mt) in volumes railed compared to the prior year, and 9,26% below the target of 234 mt.

In the face of this extremely challenging business environment, the entire organisation worked with key stakeholders to remain competitive in serving customers. This is testimony to the resilience and ability of employees, customers and Transnet's other Operating Divisions to contribute to the South African economy. Although general freight tonnages declined by 4,36% when compared to the prior year (2019: 84,7 mt) and performed at a rate of 16,15% below target (actual: 81,0 mt and target: 96,6 mt), significant achievements were realised:

- Manganese tonnages of 15,17 mt were railed, a performance increase of 0,97% above the targeted 15,02 mt, and growth of 8,28% when compared to the prior year's performance of 14,0 mt.

This constitutes exponential growth of export manganese from 5,0 mt in 2012/13 to a record 15,17 mt in 2019/20, as a result of the successful refurbishment of the rail network and the implementation of innovative operating models. The recent conclusion of the Manganese Export Capacity Allocation agreements with local manganese producers, the last of which was signed in September 2019, also contributed to the growth of manganese export volumes.

- Fertiliser volumes railed grew by 20,42% when compared to the prior year.
- Mineral mining commodities recorded volume growth of 17,8% when compared to the prior year, and exceeded the target by 1,46%. Magnetite volumes were the biggest contributor to growth in this segment and resulted in overall volume growth of 7,78% for Freight Rail's Mineral Mining and Chrome business unit.
- The export coal line railed 72,5 mt which was 6,36% below target. However, growth of 0,71% was realised when compared to the prior year (2019: 72,01 mt).
- As part of optimisation efforts, the export coal team successfully ran a wire-distributed power (WPD) loaded test train from Ermelo to Richards Bay. The use of this technology enabled Freight Rail to run trains from the mines to Richards Bay without changing locomotives for DC/AC electric traction requirements (i.e. at Ermelo traction change-over point) – to enable the running of longer trains and improve operational efficiencies.



<ul style="list-style-type: none"> • Freight Rail launched a 375-wagon manganese train, the world's longest production train. The train ran over a distance of -861 km, from Sishen to Saldanha. The train surpassed Freight Rail's previous world record for the 342-wagon iron ore production train. Following the successful execution of the test train in 2018, Freight Rail has fully operationalised the 4 km long train designed to meet the needs of manganese customers primarily in the Hotazel area and that of emerging miners. • Transnet entered into a partnership with Kalagadi Manganese, a black women-led company, for the transportation of manganese. • Transnet entered into a 20-year concession with Sbhokuza Women Investments, a black women-owned and managed company, to provide freight and passenger rail services along the Mthatha-Amabele branch line. The agreement aims to revive freight rail services along the 281 route km branch line in the Eastern Cape. • A successful back-to-rail initiative was implemented in collaboration with Afrisam to establish a new cement hub in Bellville. • In pursuit of its ongoing strategy to expand into the export of citrus fruit, one of the fastest growing industries in South Africa, Freight Rail entered the market in 2014 with the transportation of citrus fruit by rail from Tzaneen, and expanded its operations in 2017 by moving product from Bela Bela. Initially the Tzaneen trains ran with 38 wagons each and the Bela Bela trains with 36 wagons each. The train sets for Tzaneen have since been increased to 50 wagons each and are capable of transporting 48 loaded refrigerated containers (or reefers) per train. <ul style="list-style-type: none"> - The export fruit strategy to migrate freight from road to rail was advanced during the second quarter of the financial year with the departure of the first citrus reefer train from Musina in the northern region of Limpopo bordering Zimbabwe. The introduction of these trains was the culmination of the efforts of a multifunctional team, namely Freight Rail Business Development, Agriculture and Bulk Liquids, Container and Automotive Business and Steel and Cement business units in collaboration with Musina Intermodal Terminal and a key customer, Mediterranean Shipping Company (MSC). • In continued efforts to improve the condition of the network, the Rail Network department: <ul style="list-style-type: none"> - Successfully completed maintenance shutdowns in all corridors; - Significantly reduced temporary speed restrictions by 20,4%; 	<ul style="list-style-type: none"> - Reduced single lines working on the Natal corridor (Natcor) from 21 km to 8 km; - Reduced train series working on the Natcor; - Improved the utilisation of the On-Track Machines by 27%; and - Stabilised security incidents in some "hot spot" areas. • Freight Rail deployed the following digital solutions to improve service to customers and to curb costs: <ul style="list-style-type: none"> - The Rail Network department piloted industry-standard technology in the measurement of fuel. The new Temperature Compensated Flow Meters were piloted at three depots and the cost benefit for the business has been remarkable. - The first customer interactive online ordering platform was launched as part of the revamped Transnet online app. This will feature new functionalities to improve service to customers as well as internal controls. The new functionalities will enable Freight Rail's customers to manage rail volume online orders (Next Week Business), loading, offloading and releasing of wagons to proactively manage cancellations and non-utilisation of wagons. The platform also enables improved alignment within Freight Rail to improve on-time departures. A dashboard to monitor performance will create visibility for internal and external stakeholders. • Two silver certificates were awarded to Freight Rail by the annual Logistics Achiever Awards for the Bela Bela Fruit Project and the Cato Ridge Container Terminal (Catcon) Project. These awards recognise Freight Rail's continued efforts to partner with industry and also contribute to its back-to-rail strategy. • Freight Rail continues to demonstrate collaboration with industry to encourage participation and the development of cost-effective, innovative supply chain solutions for businesses across South Africa and the sub-Saharan region. Freight Rail achieved various prestigious awards during 2019 from the Transport Africa Awards, Premier Transport Project of the Year Awards, Top Employer Institute Awards and World Travel Awards for projects that have provided logistics and innovative solutions. • Since their inception, the Phelophepa Healthcare Trains I and II have collectively provided primary healthcare services to 13 million patients. Phelophepa provided healthcare services to 105 565 patients through onboard clinics and 357 323 patients through outreach programmes during the 2019/20 financial year. Phelophepa I visited 17 towns and Phelophepa II visited 20 towns across eight provinces in South Africa during the financial year.
---	---

Business overview

Freight Rail is the largest Operating Division of Transnet SOC Ltd, the largest railway in Africa and among the top freight railways in the world. The division's primary business is to operate rail services for the transportation of commodities for domestic, regional and export markets. Freight Rail also operates world-class heavy haul coal and iron ore export lines and has extended its operations to export manganese. The division also transports a broad range of bulk general freight commodities and containerised freight.

Freight Rail maintains a complex rail network of approximately 31 000 track km (20 911 route km) over which commodities are railed. The diverse rail network comprises 1 500 km heavy haul lines. The network also includes 3 928 km of branch lines that serve as feeders to main lines.

The division provides the network for long distance passenger rail services as well as haulage capacity for other private passenger services. Freight Rail continues to operate the prestigious award-winning luxury Blue Train.

The world-renowned Phelophepa Healthcare Trains Programme is managed and operated by Freight Rail and provides primary healthcare and outreach services to communities along Transnet's rail corridors.

The network and rail service provides strategic links between ports, terminals and production hubs and connectivity with the railways of the Southern African Development Community to support regional integration. Infrastructure connectivity, coupled with close cooperation between ports and collaboration with key customers, enables the delivery of freight volumes across value chains.

Freight Rail is embarking on Transnet's new strategic direction and revised operating model. The new strategic direction is driven by changing business and market conditions. The first phase in the business transformation is to commercially separate the rail infrastructure and rail operations into the Rail Network unit and the Rail Operations unit respectively for greater financial and performance transparency. The new model also aims to improve operational interfaces between Rail Network and Rail Operations through the implementation of service level agreements, streamlined business processes and refined organisational designs. Complementary performance management measures are being applied such that the Rail Network unit is incentivised to create and increase slot capacity, and the Rail Operations unit is in turn incentivised to seek opportunities to utilise the created slot capacity to grow tonnages of freight transported on rail.

A critical prerequisite for business transformation is the significant ramp-up of network rehabilitation, maintenance, protection and security of assets.

An improved network condition is essential for general freight rail volume growth and reliable service to customers, and to pave the way for future private operator access.

The sustainability and future growth of South Africa's rail industry depends on private sector and customer collaboration, particularly in areas of innovation, digital systems, technology, funding strategies and new business models that improve the effectiveness of the country's rail system.

Rail Network will continue to create a digital railway using technology to improve safety, maintenance practices and railway track situational awareness. Technologies will also be developed and implemented to build the operations capability to best utilise the slot capacity that has been created. These innovations would enable connectivity as well as visibility of information, data and real-time asset tracking for customer trains communications, reporting and timeous billing.

The alignment of the integrated train plan (ITP) with actual running data will provide a view of how rail haulage is performing against the ITP in close to real-time, and will also enhance revenue integrity. A successful rail business requires a new mindset that applies innovative ways of operating and investing and also improves skills development, productivity, safety, asset utilisation and cost control.

Rail Operations

The core purpose of Rail Operations within the Operating Division is to plan, operate and monitor the execution of rail haulage for logistics services across integrated and optimised corridors. Rail Operations includes:

- Optimising rail haulage services by providing rail service designs to logistics partners and Transnet businesses compromising key interfaces, connections and integration points;
- Mainline and branch line haulage;
- Yard operations;
- Shunting of trains in yards, maintenance facilities, terminals, and/or private sidings;
- Monitoring and deviation management (within the slot allocation and prioritisation rules provided by Rail Network);
- Managing locomotive and wagon fleet plans and deployment to execute the ITP for railing consignments;
- Planning and integration of rolling stock maintenance carried out by Transnet Engineering; and
- Building crew capacity, training, management and utilisation.

Rail Network

The Rail Network unit maintains and manages Transnet's complex rail network infrastructure. The network extends across South Africa and comprises the heavy haul coal and iron ore export lines, key national corridors over which general freight traffic flows and branch lines. The core network's main lines have structural design capabilities for train loads of 20 tonnes/axle or more. The heavy haul Sishen-Saldanha railway line is built for train loads of 30 tonnes/axle and the heavy haul coal line is built to carry loads of 26 tonnes/axle. Branch lines generally have an axle loading of less than 20 tonnes/axle.

Figure 1: Freight Rail network

Key

- Core network**
- Closed lines**
- Lifted lines**
- Branch lines**



Rail infrastructure assets

- 30 400 km of track
- 20 953 route km
- Core network: 12 801 route km
- **Bridges/structures**
 - Rail carrying bridges - 2 696
 - Tunnels - 198
- **Network traction**
 - 50kV AC - 861 route km
 - 25kV AC - 2 516 route km
 - 3kV DC - 4 621 route km
 - Diesel - 12 955 route km
- **Traction substations**
 - 3kV DC substations - 346
 - 25kV AC substations - 99
 - 50kV AC feeder stations - 7
- **Train authorisation systems**
 - Signalling basic stations - 2 146
- **Axle loading**
 - Main lines at 20t/axle
 - Ore line at 30t/axle
 - Coal line at 26t/axle

The asset base of Rail Network also includes complex civil structures such as bridges and tunnels and the business is managed as three regions, namely western, central and eastern regions. Each region consists of seven to eight maintenance depots that each is primarily responsible for the daily maintenance of Rail Network's infrastructure.

In addition, Rail Network is the custodian of Freight Rail's core operational property and is also responsible for the security of the division's assets and personnel. Rail Network generates other income from its property portfolio, telecommunications services and the rail construction and maintenance services provided to external parties.

Regulatory environment

Freight Rail is accountable to all stakeholders under the applicable regulatory requirements and is committed to high standards of integrity. In view of the importance of complying with the ever-increasing regulatory universe and the increased emphasis placed on regulatory compliance, appropriate management responses are required to mitigate the risk of non-compliance. Freight Rail continues to evaluate applicable legislation to remain relevant in the changing regulatory environment and also to effectively manage regulatory risks and their potential strategic impact on the division's performance.

The Department of Transport's Draft White Paper on National Rail Policy has positioned rail sector institutional reform (towards eventual opening of access to the freight rail core network by private sector operators) as a secondary policy lever to address the shortcomings and poor national competitive positioning of the freight rail sector. This provides for the separation of Freight Rail into a rail network operator and train services operator/s. The rail network operator will provide access to Transnet's rail train operator as well as other operators seeking access on a fair and equitable basis. Care will be taken to manage this 'liberalisation' of the rail network and granting of access to multiple train operators on the network.

To mitigate potential impacts of policy developments on the business, Transnet will continue to engage the Department of Transport (DoT), the Department of Public Enterprises (DPE) and other departments such as National Treasury to seek to refine the rail reform agenda in a manner that will reduce potential risks, while developing an efficient and sustainable platform to enable private train operators to fair and equitable access to the core freight rail network.

In addition to evolving rail policy regulations, a separate process is under way for the introduction of a Transport Economic Regulator via the Economic Regulation of Transport Bill that the DoT has put forward. Cabinet has approved the Bill and the Minister of Transport has issued a Notice of Intention to table the Bill in Parliament during 2020.

Transnet will continue to engage with the DoT, the DPE and other significant role players to advocate refinement to the nature and scope of the most recent Bill on the Economic Regulation of Transport in order to bring fairness to the economic regulation of all transport modes in general, and to level the playing fields between road and rail transport in particular.

Strategic context

Freight Rail contributes to Transnet's strategic objectives that are contained in the Statement of Strategic Intent:

Table 1: Freight Rail's contribution to Transnet's Statement of Strategic Intent

Strategic objective	Contribution to strategic objective
Reduce the total cost of logistics as a percentage of transportable GDP	Increase general freight and intermodal market shares in the 2020/21 financial year to 28,4% and 23,5% respectively
Effect and accelerate modal shift by maximising the role of rail in the national transport task	Develop business and marketing initiatives to harness identified road-to-rail opportunities
Leverage the private sector in the provision of both infrastructure and operations where required	Build innovative partnerships across value chains through the completion of the following branch lines concessions: <ul style="list-style-type: none"> • Port Elizabeth to Humewood narrow gauge • George to Knysna • Cookhouse to Blaney • Mthatha to Amabele
Integrate South Africa with the region and the rest of the world	Freight Rail's International Business department aims to grow cross-border freight volumes and enable regional integration of rail, with particular focus on the following three corridors: <ul style="list-style-type: none"> • Maputo Corridor (South Africa, Swaziland, Mozambique) • East-West Corridor (South Africa, Namibia, Botswana, Lesotho) • North-South Corridor (South Africa, Zimbabwe, Zambia, Democratic Republic of Congo, Tanzania)
Optimise the social and economic impact of all interventions undertaken by Transnet in the achievement of these objectives	<ul style="list-style-type: none"> • Continue to provide healthcare services to disadvantaged communities along Transnet's rail corridors through the Phelophepa Healthcare Trains Programme • Train artisans, engineers and technicians in the rail sector • Promote the procurement of local content • Enterprise and supplier development

Operational context

The South African economy remained under pressure during the 2019/20 financial year, exacerbating the external and internal factors that impacted the overall performance of Freight Rail:

- GDP growth declined due to contractions in the agriculture, mining and construction sectors, rolling power outages, and weaker international demand for exports amidst the ongoing international trade war between China and the United States of America.
 - The rise in iron ore prices stimulated additional demand for magnetite during the year under review. Mineral mining demand was favourable in 2019, driven by demand from China for magnetite and a steady demand for rock phosphate.
 - The demand for manganese remained buoyant throughout the year, contributing to the record manganese performance achieved during the past financial year.
 - A significant hike in security incidents contributed to service disruptions. Incidents included theft of network components such as overhead traction equipment cables, rail fastening clips and rails and locomotive components such as batteries and pipe traction motor cables.
 - A high number of community unrest incidents spilled over into Freight Rail's operations, which negatively impacted the completion of infrastructure maintenance interventions and constrained the capacity of train slots and train operations.
- The poor condition of key sections of the Passenger Rail Agency of South Africa (Prasa) network negatively affected Freight Rail trains in metropolitan areas serving city container terminals and ports.
 - Customer cancellations due to market dynamics led to reduced products being available for transport.
 - The agriculture and forestry industries were negatively affected by unfavourable economic conditions, adverse weather patterns and a decline in investments due to the South African government's policy uncertainty around land expropriation without compensation.
 - The manufacturing and mining industries also struggled during the year, negatively affecting volumes of numerous commodities that Freight Rail transports.
 - Adverse weather patterns resulted in major floods in KwaZulu-Natal (Natcor line in Bayhead complex and South Coast line) – causing wash-aways (a portion of the track eroded by the water), embankment failures, rock falls, mudslides, landslides, falling mast poles and substation flooding that resulted in line closures and reduced volume throughput.

Operational performance

Overview of key performance indicators

Table 2: Financial performance against key performance indicators

Key performance area and indicator	Unit of measure	2019	2020	2020	2021
		Actual	Budget	Actual	Target
Financial sustainability					
EBITDA margin	%	44,8	47,5	42,1	43,3
Operating profit margin	%	24,8	28,8	22,4	24,3
Gearing	%	56,8	51,9	62,1	59,9
Net debt to EBITDA	times	3,8	3,3	4,01	3,82
Return on total average assets – excluding capital work in progress (CWIP)	%	6,6	9,0	6,6	n/a ¹
Asset turnover – excluding CWIP	times	0,27	0,31	0,29	0,33
Cash interest cover	times	2,5	2,8	2,4	2,6
Capacity creation and maintenance					
Capital expenditure	R million	14 818	20 358	13 932	14 487
Tariffs					
Year-on-year weighted average R/tonne change – general freight business	%	6,92	5,06	5,11	1,85

¹ The KPI has been replaced by return on invested capital.

Table 3: Financial performance review

Salient features	Year ended 31 March 2020 R million	Year ended 31 March 2019 R million	% change	
Revenue	44 627	43 582	2,4	
- General freight	23 236	23 175	0,3	
- Export coal	12 514	11 935	4,9	
- Export iron ore	7 148	6 686	6,9	
- Other	1 729	1 787	(3,2)	
Operating expenses	(25 832)	(24 076)	7,3	
- Energy costs	(5 666)	(5 434)	4,3	
- Maintenance	(1 884)	(1 856)	1,5	
- Materials	(606)	(565)	7,3	
- Personnel costs	(13 434)	(12 826)	4,7	
- Other costs	(4 242)	(3 395)	24,9	
Profit from operations before depreciation, derecognition, amortisation and items listed below (EBITDA)	18 795	19 506	(3,6)	
Depreciation, derecognition and amortisation	(8 780)	(8 685)	1,1	
Profit from operations before items listed below	10 014	10 821	(7,5)	
Impairments and fair value adjustments	(1 874)	(1 154)	62,4	
Net finance costs	(6 057)	(5 782)	4,8	
Profit before taxation	2 084	3 885	(46,4)	
Total assets (excluding CWIP)	148 357	155 468	(4,6)	
Profitability measures				
EBITDA margin ¹	%	42,1	44,8	(2,7)
Operating margin ²	%	22,4	24,8	(2,4)
Return on total average assets (excluding CWIP) ³	%	6,6	6,6	0
Asset turnover (excluding CWIP) ⁴	times	0,29	0,27	7,4
Capital investments ⁵		13 932	14 818	(6,0)
Employees				
Permanent employees	number	26 053	26 312	(>1)
Revenue per employee	R million	1,71	1,66	3,0

¹ EBITDA expressed as a percentage of revenue.² Profit from operations before impairment of assets, fair value adjustments, net finance costs and taxation expressed as a percentage of revenue.³ Profit from operations before impairment of assets, fair value adjustments, net finance costs and taxation expressed as a percentage of average total assets, excluding capital work in progress.⁴ Revenue divided by average total assets, excluding capital work in progress.⁵ Actual capital expenditure (replacement plus expansion), excluding borrowing costs and including capitalised finance leases.

<p>Performance commentary</p> <p>Financial sustainability</p> <p>Revenue</p> <p>Revenue for the period under review increased by 2,4% to R44 627 million from R43 582 million in 2019. The revenue increase is attributable to a 4,23% increase in average Rand/tonne to R204,86 from R196,55 in 2019, however, this increase was offset by the decline in volumes.</p> <p>Operating expenses</p> <p>Notwithstanding the cost-containment measures implemented, operating expenses increased by 7,3% to R25 832 million (2019: R24 076 million). Personnel costs increased by 4,7% to R13 434 million from R12 826 million in 2019, mainly due to a 7,5% wage increase for bargaining unit grade employees, in accordance with the wage agreement. This increase was offset by savings in management salaries. Management salary increases were only paid to qualifying employees up to a defined threshold. Other operating expenses increased by 24,95% to R4 242 million from R3 395 million in 2019, mainly due to higher than budgeted increases in the costs of haulage, insurance expenses, security and Railway Safety Regulator levies. Haulage charges for cross-border traffic increased significantly as bilateral agreements were revised in line with changed operating models and cost structures as partner railway administrations introduced new rolling stock onto the corridor/s. Increases in insurance premiums and security costs directly correlate with the drastic increase in security incidents over the last 24 months. In addition, subsequent to Prasa being placed under business administration, revenue due to Freight Rail for services rendered during the period was reversed in accordance with IFRS considerations (i.e. the inability to recover amounts outstanding).</p> <p>EBITDA and operating margins</p> <p>The declines in EBITDA to 42,1% from 44,8% in 2019 and operating margins to 22,4% from 24,8% in 2019 were driven by lower than planned revenue growth, and the fact that revenue growth was lower than the rate of cost increase for the year under review.</p> <p>Return on total average assets (excluding CWIP)</p> <p>Return on total average assets remained constant at 6,6% (2019: 6,6%), despite a lower asset base as a result of a series of devaluations of infrastructure assets during the year under review. The performance of this ratio is mainly the result of the decline in operating profit to R10 014 million from R10 821 million in 2019, which was attributable to lower volumes and an increase in operating expenditure at a steadily higher pace than the increase in pedestrian revenue growth.</p>	<p>Cross-border revenue</p> <p>Cross-border revenue, comprising medium to long-term leasing of rolling stock and short-term wagon interchange, increased by 13,3% to R204 million (2019: R180 million).</p> <p>Revenue per employee</p> <p>Revenue per employee improved by 3,2% to R1,71 million (2019: R1,66 million) due to the implementation of human capital strategic initiatives during the year aimed at improving employee engagement and embedding a high-performance culture within the organisation.</p> <p>Looking ahead</p> <p>Freight Rail capital and operating expenditure budgets for the 2020/21 financial year and the five-year projections seek to support Transnet's strategic objectives to:</p> <ul style="list-style-type: none"> • Reduce the total cost of logistics as a percentage of transportable GDP; • Collaborate with the private sector in the provision of infrastructure, rolling stock and operations activities where required or feasible; • Integrate South Africa with the sub-Saharan region and the rest of the world; • Optimise the social and economic impact of all interventions; and • Improve returns on invested capital, while continuing to focus on ensuring the financial liquidity and sustainability of the Company. <p>To achieve these objectives, the 2020/21 budget is based on the following guiding principles:</p> <ul style="list-style-type: none"> • Rebase budgeted volumes to realistic targets in line with the economic outlook, operating capacity and validated demand (value chain focus). • Drive operational efficiencies and asset utilisation to improve margins. • Limit cost increases to 2% below revenue increases until EBITDA targets are met. • Implement capital and asset maintenance strategies and expand capex affordability parameters, based on available funding sources, by: <ul style="list-style-type: none"> - Budgeting for funding and loan redemptions at the Operating Division cash flow level; - Maintaining financial stability guided by approved financial parameters (gearing, cash interest cover, debt/EBITDA, return on invested capital); and - Optimally utilising working capital. <p>The Covid-19 pandemic has constrained the organisation and the achievement of strategic objectives. Response plans have been developed to deal with the emerging risks and are under constant review. This includes a holistic review of how the business operates and of opportunities to collaborate with customers and suppliers to harness opportunities to grow volumes railed and to reduce supply chain costs.</p>
--	--

Capacity creation

Freight Rail invested 68% of the allocated capital during the 2019/20 financial year (2019/20 budget: R20 358 million against 2019/20 actual: R13 932 million), which translates to a 32% deviation. The capital budget was reprioritised in line with volume performance.

The breakdown of investment was as follows:

Table 4: Freight Rail investment summary

Category	Budget 2019/20	Actual 2019/20
	R million	R million
Infrastructure	5 269	3 703
Locomotives	8 477	3 670
Wagons	5 486	5 443
Other	1 126	1 115
Total	20 358	13 932

Table 5: Freight Rail line of business investment summary

Category	Budget 2019/20	Actual 2019/20
	R million	R million
General Freight	15 407	10 236
Export coal	3 276	2 297
Export iron ore	1 675	1 399
Total	20 358	13 932

The reasons for the deviation from the allocated capital investment budget are as follows:

Infrastructure

Capitalised operational expenditure (copex) on rail infrastructure comprises 81% of the total investment spend on infrastructure. The funds were prioritised based on a multi-criteria analysis tool that took into account volume forecast, network condition, slot utilisation and concentration of minor and major breakdowns. The funds were allocated to the top 10 lines out of a total of 63 lines. The 2019/20 infrastructure copex budget of R3 billion was fully spent, resulting in the following benefits for Freight Rail:

- Temporary speed restrictions were significantly reduced by 53% on the iron ore line, coal line, Natcor, Steelpoort-Belfast, manganese line, Witbank-Komatipoort-Phalaborwa-Empangeni, Blackhill-Ermelo, Golela-Empangeni, and Lephalale-Ogies lines. As at February 2020, about 199,59 km were no longer operating under temporary speed restrictions – a reduction from 372,8 km as at April 2019. This translates into an overall reduction of 197,91 km on these selected lines in the 2019/20 financial year.

- Train transit time improved by six hours on the Natcor rail line due to the temporary speed restriction (83% reduction) being uplifted and single line working reduced from 21 km to 8 km.
- The Krugersdorp-Mafikeng line was upgraded to improve the deployment and operation of new, heavier 44D locomotives. Works included replacing 36 527 sleepers, 15,84 km of rails, 25,3 km of ballast screening and 40 km of tamping.
- Train traffic on the Natcor rail line improved as a result of repairs of the rail infrastructure, such as substation refurbishment, which led to a reduction in the number of working sites.

The underspending on infrastructure mainly related to the:

- Delayed governance process for the Tambo Springs Project and Ore Line Substation Programme;
- Completion of the Manganese 16 mtpa Phase 1 Expansion Project during the year under review that resulted in a saving of R2,57 million on the Modder Rivier bridge works;
- Slow progress on the Manganese Phase 2 Project for the layer works at Witloop and Vlermuislaagte substations due to subcontractor performance challenges and a change in strategy from the Manganese Phase 2 Project to the new Multi-Port Strategy;
- Procurement challenges and supplier liquidation process that hindered capital investment in telecommunications infrastructure;
- Challenges on the Coal 81 Expansion Project, such as the governance process delays in Ermelo and the shortage of material on Ogies refuelling; and
- Contractual challenges and local community unrest that affected progress on the Waterberg Project.

Locomotives

Locomotive copex comprises 64% of the total investment spend on locomotives. The 12% underspend (R329 million) on locomotive copex was mainly due to procurement challenges resulting in material shortages, and operational demands that resulted in the prolonged removal of 18E locomotives from operations for the major overhaul programme.

The 1 064 Locomotives Programme contributed to 92% of locomotive investment underspend. A total of 135 locomotives were budgeted for while only 46 were accepted for the year due to a technical deviation from the car body specification on the BT locomotive, causing a delay in delivery; material, manufacturing and subcontractor assembly equipment shortages; and the unfortunate eventual suspension of contracts for the CSR and CNR locomotives.

Wagons

Wagon copex spend comprises 81% of the total investment spend on wagons. The wagon copex budget of R4,4 billion was utilised. The Wagon Fleet Renewal Programme was affected by the unavailability of wagons that were being utilised by operations and could not be withdrawn for upgrades as planned. A total of 3 718 wagons were upgraded for the business.

Investigations to develop the new prototype to build 340 CR-20 wagons were not successful. This resulted in an executive decision to build 478 CR-13 wagons. A total of 400 of the 478 wagons were received in the 2019/20 financial year, with the remaining 78 wagons to be delivered in the 2020/21 financial year.

Freight Rail spent R9 750 million on copex as depicted in the table below:

Table 6: Freight Rail investment in capitalised maintenance

Category	2019/20 Budget R million	2019/20 Actual R million
Infrastructure network	3 000	3 000
Locomotives	2 665	2 335
Wagons	4 434	4 415
Capitalised maintenance (locomotives, wagons and infrastructure)	10 099	9 750

Looking ahead

Having cognisance of the effects of the credit ratings downgrade and the Covid-19 pandemic, the 2020/21 capital budget will focus on:

- Continuation of unavoidable projects relating to safety, security and compliance;
- Continuation of unavoidable capitalised maintenance for infrastructure, locomotives and wagons for safe movement of freight volumes to meet customer demand; and
- Limited execution of expansionary and sustaining capital programmes in progress such as the Wagon Fleet Renewal Programme, the 1 064 Locomotives Programme, the export coal line expansion to 81 mtpa (inclusive of the doubling of the Overvaal Tunnel and the expansion of the manganese export corridor to 12 mtpa).

Operational management

Despite the depressed business environment and systemic challenges experienced during the year under review, Freight Rail remains committed to achieving improved rail efficiency for volume growth, better demand management, reliable service delivery, enhanced customer relations and an entrenched customer-centric culture.

Core initiatives

A number of initiatives were implemented during the 2019/20 financial year while some will be rolled out in the 2020/21 financial year:

- Robust and effective pricing solutions were implemented to grow volumes and mitigate closure of customers' plants as a result of dire market conditions.
- Supply chain solutions were designed and implemented, resulting in the onboarding of new customers.
- Rail Network initiated an improvement programme to stabilise the condition of the network, reduce temporary speed restrictions nationwide, reduce security incidents and improve asset utilisation with available resources.
- Stakeholder engagement plans, such as the establishment of community engagement forums in cooperation with local government and associations, were implemented to mitigate the impact of community unrest close to the rail reserve.
- Capital and maintenance strategies have been aligned to address asset failure in addition to continued engagements with the procurement team to ensure timeous availability of required materials.
- Rail Operations reconfigured operations corridors to grow freight, improve asset utilisation and optimisation, improve efficiencies, and reduce the cost of operations for a positive impact on customer service.
- Transnet entered into negotiations with the suppliers of the 1 064 locomotives to facilitate the delivery of the remaining locomotives.

Overview of key operational performance indicators

Table 7: Operational performance against key performance indicators

Key performance area and indicator	Unit of measure	2019	2020	2020	2021	
		Actual	Budget	Actual	Target	
Operational excellence						
Asset utilisation						
General freight business	Gtkm/Ntkm	1,40	1,41	1,39	1,40	
Export coal	Gtkm/Ntkm	1,26	1,25	1,26	1,25	
Export iron ore	Gtkm/Ntkm	1,20	1,20	1,20	1,20	
Loco-utilisation						
General freight business	GTK'000/loco/month	4 551	4 227	4 177	3 987	
Export coal	GTK'000/loco/month	11 147	17 232	18 002	20 739	
Export iron ore	GTK'000/loco/month	34 122	54 576	46 686	46 672	
Cycle time						
Export coal	hours	64,22	63,80	62,39	63,80	
Iron ore	hours	91,73	87,70	94,96	87,70	
Export manganese	hours	151,34	120,00	153,75	127,50	
Wagon turnaround time						
General freight business	days	9,68	7,90	9,75	8,56	
Density						
General freight	GTK/Routekm	4,87	5,74	4,71	4,82	
Natcor	GTK/Routekm	8,90	10,14	7,97	8,69	
Capecor	GTK/Routekm	5,77	6,93	5,09	4,97	
Southcor	GTK/Routekm	5,97	6,67	6,18	6,08	
Service delivery						
On-time departure (average deviation from scheduled times)						
General freight business	minutes	(35)	148	(12,94)	133	
Export coal	minutes	(58)	55	(43,95)	36	
Export iron ore	minutes	(47)	40	(40,04)	50	
On-time arrivals (average deviation from scheduled times)						
General freight business	minutes	96	165	172,18	149	
Export coal	minutes	17	185	71,50	72	
Export iron ore	minutes	9	80	194,65	167	
Market segment competitiveness						
Volume and revenue growth						
Commodity classification						
General freight business	mt	84,69	96,59	80,99	80,58	
Export coal	mt	72,01	77,45	72,53	74,93	
Export iron ore	mt	58,43	60,00	58,85	59,50	
Total volumes	mt	215,13	234,04	212,37	215,01	

Performance commentary

Freight Rail transported a total of 212,37 mt of freight, 9,26% below the 234,04 mt projection and 1,28% less than the prior year (2019: 215,13 mt). Performance was affected by a number of business environment factors.

Although export coal volumes were 6,36% lower than the 77,45 mt target for the 2019/20 financial year, a growth of 0,71% to 72,53 mt was realised when compared to prior year performance (2019: 72,01 mt). Export coal volume performance was affected by volatile economic conditions driven by, among other issues, India's erratic coal demand throughout the year. India has been driving initiatives to rely on domestic production, while Indonesia and Russia have also been ramping up production and flooding the seaborne market thereby increasing competition. Export coal volume performance was also impacted by the high locomotive failure rate of 19Es, 21Es and 22Es, undersupply of required wagons and poor rail network conditions.

Export iron ore volume ended below the 60 mt target, however, the actual of 58,85 mt is a slight improvement of 0,72% on the previous financial year (2019: 58,43 mt). The deviation can mainly be attributed to tippler challenges at the port, rail network challenges and the impact of the deployment of the On Track Machine (Supercreener) to replenish the ballast on the line to optimise rail network maintenance. However, the business continued to explore innovative means to improve operational delivery efficiency and rolled out a number of initiatives to recover volume losses during the past financial year:

- Capacity on the existing export service was increased with the addition of six more wagons, effectively increasing the train length to 348 wagons, without additional locomotives, crew or investment costs.
- The payload increased from 63 to 68 tonnes per wagon to benefit emerging iron ore miners loading from the Postmasburg facility.

General freight tonnages reflected a decline of 4,36% to 81 mt (2019: 84,7 mt) and fell 16,15% below the target of 96,6 mt. Major positive and negative contributors included the following:

- Freight Rail's Mineral Mining and Chrome business grew by 7,78% to 23,54 mt (2019: 21,84 mt), although tonnages were 6,41% below the target of 25,15 mt. The major contributor to this improved performance against prior year was magnetite volumes, which exceeded both prior year and target volumes and reflected growth of 26,63% to 10,42 mt (2019: 8,03 mt). Challenges that contributed to the below target performance included spillage and tippler breakdowns at the port, locomotive shortages at Maputo and driver challenges at Foskor.

- Manganese volumes grew by 8,28% to 15,17 mt (2019: 14,01 mt) and exceeded the target by 0,97%. Global demand for manganese was favourable as global steel production remained firm. The following initiatives contributed to this positive performance:
 - Embedding the 375-wagon manganese train operation on the export iron ore line; and
 - Pursuing alternative export corridors (e.g. Richards Bay) to supplement capacity to meet customer demand.
- Freight Rail's Agriculture and Bulk Liquids business declined by 11,79% to 7,53 mt (2019: 8,54 mt), with tonnages 26,53% below the targeted 10,25 mt:
 - Although the maize harvest was fairly good in 2019 and sufficient for both domestic consumption and exports, cheaper road prices threatened volumes on rail.
 - The timber harvest was compromised by poor margins as prices plummeted.
 - The increase in safety and security incidents on the Natcor had a negative impact on chemicals, fuel and grain flows.
 - Soda ash and salt flows from Botswana as well as fuel to Botswana were hindered by cable theft on the Prasa line as well as less efficient older locomotives.
- Freight Rail's Container and Automotive business volumes declined by 8,79% to 8,89 mt (2019: 9,4 mt) and were 11,17% lower than the target of 10 mt.
- Domestic automotive volumes were weak for most of the year as the South African economy remained subdued while business and consumer confidence were volatile, however, this was offset by the growth in automotive exports. The number of cars transported was 35 932 units for imports and 99 754 units for exports compared to the prior year performance of 35 214 and 95 193 units respectively.
- Freight Rail transported 520 468 TEUs over key corridors (Natcor: 396 826 TEUs; Capecor: 52 924 TEUs; and Southcor: 70 718 TEUs) compared to 566 229 TEUs transported in the prior year (excluding containerised Eskom coal).
 - Freight Rail's Steel and Cement business declined by 22,68% to 11,98 mt (2019: 15,50 mt) and performed 24,92% below the target of 15,96 mt.
 - Subdued local economic growth and fewer major infrastructure projects (especially by government) weakened demand for steel and cement.
 - Domestic iron ore was negatively impacted by the closure of the Saldanha Steel plant.
 - Domestic steel output declined, contributing to reduced volumes of product available for transport, however, exports supplemented the weak domestic market.
 - Poor local demand for cement volumes coupled with an increasing level of cement imports created a difficult environment for South African cement producers. Furthermore, regulations were implemented, for example, carbon tax which increased production costs by 2%, weakening domestic cement competitiveness with imports.

<ul style="list-style-type: none"> - The reduction of fly ash content in the production of cement resulted in a loss of volumes. - Increased security incidents and reduced rolling stock reliability and availability compounded volumes transported. <p>• Domestic coal performance was slightly weak as most sectors (especially manufacturing) struggled to recover in 2019 following the economic recession and load shedding events in the first quarter of 2019.</p>	<p>speed restrictions placed on the northern part of the iron ore line.</p> <p>The wagon cycle time for export manganese for the year under review was 153,75 hours (2019: 151,34 hours). The lack of improvement in wagon cycle time can be attributed to train delays resulting from a number of infrastructure maintenance occupations and speed restrictions placed on parts of the corridor. However, performance did surpass the target of 120 hours and manganese tonnages increased.</p>
<h2>Operational excellence</h2> <p>Freight Rail continuously strives for operational excellence, however, most operational efficiency key performance indicator targets were negatively impacted by reduced volumes and were not achieved when compared to targets and to the performance in the prior year.</p>	<p>General freight wagon turnaround time marginally declined from 9,68 to 9,75 days when compared to the prior year, and was below the target of 7,9 days. The combined negative impact of reduced volumes, locomotive reliability issues and network conditions on key corridors significantly influenced general freight wagon efficiency.</p>
<h3>Locomotive utilisation</h3> <p>General freight locomotive utilisation performance was below target and prior year achievements. Performance was negatively impacted by various factors. Legacy locomotives were kept in service to compensate for non-delivery of new locomotives expected from the 1 064 Locomotives Programme. Freight Rail budgeted 135 locomotives and 46 locomotives were accepted. In addition, performance was negatively impacted by lower domestic coal volumes railed for Eskom, and also the deterioration in market conditions which affected the automotive, fuel, chemicals, steel and cement sectors.</p>	<h3>Density</h3> <p>Density is a function of volumes transported over the rail route network. General freight volumes over the network reduced to 81 mt (2019: 84,7 mt), therefore density was impacted by this decline in tonnages. Coupled with lower tonnages transported, the increased security incidents of theft, vandalism and sabotage have led to general freight, Natcor, Capecor and Southcor density ratio performance being less favourable when compared to the prior year performance and against targets.</p>
<p>Export coal locomotive utilisation performance exceeded the target for the financial year and performance also improved when compared to the prior year. This was as a result of retiring 11E locomotives. Although volumes were cancelled by some mining customers, Freight Rail was able to respond quickly and redeployed resources to areas of greater demand.</p>	<h3>On-time departures (OTD) and arrivals (OTA)</h3> <p>OTD and OTA performances were impacted by en-route execution challenges such as crew management, infrastructure conditions, locomotive reliability, port capacity constraints, security incidents and community unrest which resulted in train delays. Temporary speed restrictions placed on general freight, export coal and export iron ore lines also contributed to a decline in performance.</p>
<p>Export iron ore locomotive utilisation was below the target mainly due to the undersupply of 43D locomotives, however, performance was better than the prior year.</p>	<h3>Looking ahead</h3>
<h3>Cycle times and wagon turnaround times</h3> <p>Export coal wagon cycle times performed 2% better at 62,39 hours against the target of 63,80 hours and compared to the prior year of 64,22 hours. Performance improvement was due to the successful implementation of continuous improvement initiatives at Ermelo Yard and a reduction of wagons in the active fleet.</p>	<p>The Covid-19 pandemic is a threat to Freight Rail's business, South Africa and the world as a whole. The pandemic broke in South Africa in March 2020, once the Corporate Plan had been finalised for the 2020/21 financial year. The business was further challenged in that the 2020/21 financial year began within a few days after the commencement of the declared National Level 5 Lockdown on 27 March. The production processes of the majority of Freight Rail customers were impacted by the lockdown, and resulted in volumes offered for transport being significantly lower than the projected targets in the Corporate Plan, which had severe negative impacts on revenue, costs and capital expenditure.</p>
<p>Export iron ore line cycle time rose to 94,96 hours (2019: 91,73 hours), falling short of the target of 87,70 hours. The longer cycle time is attributed to tippler challenges and an increase in the number of</p>	

<p>Freight Rail developed, modelled and identified the risks associated with three scenarios for the business for the 2020/21 financial year. Every effort will be made to seek opportunities to capture volumes in order to best utilise the rail network and locomotive and wagon assets. Analysis indicates that some assets may be surplus to requirements under the crisis conditions, resulting in the retention of costs of idle assets – a situation that must be mitigated.</p> <p>The following initiatives will be implemented for the 2020/21 financial year to improve volume performance and operational excellence:</p> <ul style="list-style-type: none"> • Continue with the implementation of the Road-to-Rail and Intermodal Strategy for general freight; • Ensure implementation of core programmes that contribute to improving customer satisfaction in identified areas indicated by customers; 	<ul style="list-style-type: none"> • Network Renewal Programme to improve the condition of the network and unlock capacity on corridors for key commodities; • New operating corridor model to grow rail market share; improve the quality of service rendered to customers; stabilise operational performance in the short term; and provide incremental capacity creation through optimisation; • Optimise integrated rail service planning, operational execution and monitoring, and deviation management; and • Optimise locomotive and wagon fleet size and performance to improve asset utilisation and service reliability to customers. 	
---	--	--

Sustainable developmental outcomes

Table 8: Sustainable development outcomes against key performance indicators

Key performance area and indicator	Unit of measure	2019 Actual	2020 Budget	2020 Actual	2021 Target
Sustainable developmental outcomes					
Human capital					
Employment equity	% % of personnel	88,74	90,00	89,8	90,00
Training spend	cost cost	2,97	2,01	2,81	2,50
Employee turnover	% %	3,73	5,00	3,85	5,00
Employee headcount	permanent	26 312	28 673	26 053	27 529
Risk, safety and health					
Cost of risk	% of revenue	6,20	6,20	6,80	6,20
DIFR	rate	0,90	0,88	0,88	0,88
Number of safety incidents	number	379	228	379	201
Number of derailments – mainline	number	65	40	88	35
Number of derailments – shunting	number	153	122	147	107

Human capital (employment and transformation)

- Freight Rail ended the 2019/20 financial year with a permanent headcount of 26 053 employees.
- Freight Rail sustained employment equity performance, with black employees representing 89,8% (target: 90%) of the total employee base thus improving on the previous year's performance (2019: 88,74%). Female employees represented 30% of the workforce and people with disabilities represented 2,51% of the total employee base.
- Training spend of personnel cost was 2,81% (2019: 2,97%), which was higher than the target of 2,01%.

Employee turnover rose to 3,85%, reflecting a 1,30% increase when compared to the prior year's turnover of 3,73%, due to an increase in the number of exits, mostly retirements and resignations.

Skills development

Freight Rail continued to make excellent strides in skills development with engineers and technicians participating in engineering empowerment programmes (EEP), and with youth employed and developed in the division. The progress of these programmes is summarised in the tables below and reflects Freight Rail's contribution to key organisational and national objectives.

Table 9: Number of engineers and technicians on the EEP

Training area	Actual 2019	Target 2020	Actual 2020
Technician bursars	200	200	200
Engineering bursars	60	60	60
Young professionals in training	174	170	150
Technicians in training	257	N/A	229
Engineers in training	118	N/A	136

Table 10: Youth employment and development strategy

Employment/development	Actual 2019	Target 2020	Actual 2020
Youth employed as % of total employees	37,4	-	37,9
Youth developed as % of all employees trained	46,6*	-	44,8

* Number readjusted.

In addition, Freight Rail has been offering the Railway Operations Management Programme for the past seven years to sharpen the railway management skills of managers and employees in the organisation. This programme has been developed in collaboration with Glasgow Caledonian University, University of Johannesburg, the Institution of Rail Operators and Freight Rail. It is offered at five different levels: Certificate, Diploma, B Degree, Honours and Masters; the Doctoral level is currently being explored. The table below depicts the throughputs per level to date.

Table 11: Railway Operations Management Programme

Level	Total graduates for the past seven years
Certificate	298
Diploma	345
Degree	174
Honours	10
Masters	5
Total	832

Risk, health and safety

Cost of risk

The 2020 cost of risk was 6,8% compared to 6,2% achieved in the prior year. The target of 6,2% was not achieved due to adverse weather conditions which resulted in Durban floods; the fatal train collision at the Matlabas crossing; and reduced revenue as a result of lower than planned volumes railed.

Disabling injury frequency rate (DIFR)

Freight Rail achieved a DIFR of 0,88 which is lower than the global industry benchmark of 1,00. The performance was within the tolerance limit of 0,88 and a major improvement from 0,90 in 2019. This improvement was achieved through the implementation of safety initiatives such as activity-based risk assessments, pre-shift safety briefings and an improved awareness drive on causes and controls to mitigate incidents.

Number of safety incidents

The overall number of rail incidents remained steady at 379 when compared to the prior year (2019: 379). The category of incidents experienced were mainline derailments (88), shunting derailments (147), Signal Passed at Danger incidents (41) and train-on-train collisions (2). The annual safety improvement plan was aimed at improving the safety culture in general as well as the operational discipline in maintenance programmes. The key challenges related to increased vandalism, inadequate maintenance and ongoing unsafe conduct. Inadequate maintenance was as a result of a lack of maintenance contracts and shortages of replacement components or materials.

Number of mainline derailments

The number of mainline derailments increased from 65 in 2019 to 88 in 2020. The increase was mainly due to inadequate rail conditions (17) (e.g. broken rails, defective points and wide gauges), inadequate rolling stock (17) (e.g. broken axles and defective bogies) and unsafe behaviour (11) (e.g. train handling and points not set correctly). Further to unsafe acts and conditions, other incidents were caused by vandalism and crime (7).

Number of shunting derailments

The number of shunting derailments decreased slightly by six occurrences from 153 in 2019 to 147 for 2020. The number of derailments exceeded the tolerance limit of 122 that was set for the financial year. The incidents were mainly due to unsafe acts accounting for 94 occurrences (e.g. points not set correctly, points run through while train handling accounted for 56 occurrences; inadequate rolling stock accounted for 12 occurrences (e.g. loose brake gears, buffer pull outs and defective train brakes); inadequate infrastructure conditions accounted for 28 occurrences (e.g. broken rail, track gauge and slack rail); crime and vandalism accounted for six occurrences; and other causes accounted for seven occurrences.

Table 12: Railway Safety Regulator prohibition directives

Classification	Nature of contravention	Issuing authority	Financial implication	Remedial actions
RSR Prohibition Directive	Level Crossing Inspection: Nyalazi River, 7 May 2019. The inspection revealed an informal structure had been erected next to the level crossing on the road approach 2. The structure posed a threat to safe railway operations as it obstructed the line of sight.	Railway Safety Regulator	None	All actions implemented. Notice of Compliance issues by the RSR on 29 July 2019.
RSR Prohibition Directive	Ad hoc Inspection: Umgeni to Effingham, 10 July 2019. Formation failure resulted in vertical misalignment and mud holes between Km170/10 and Km170/16 of the Number 1 line between Umgeni and Effingham stations.	Railway Safety Regulator	None	All actions implemented. Notice of Compliance issues by the RSR on 29 July 2019.
RSR Prohibition Directive	North Coast Line (Fraser to Stanger station): Signals Inspection, 2 – 3 October 2019. The B110V DC contractor for the points at Shakaskraal Station had been forced closed with a wooden foreign object 2. Some of the NFG interlocking equipment at the relay rooms had not been mounted properly on the interlocking racks as well as cracked or missing covers for relays.	Railway Safety Regulator	None	All actions implemented. Notice of Compliance issues by the RSR on 30 January 2020.
RSR Prohibition Directive	Signals Inspection: Newcastle to Clontarf, 27 February 2020. Broken rail and missing bolts on the frog of turnout 213W located on loop line number 2 between mast poles 57/12 and 57/13 at Signal Hill Station.	Railway Safety Regulator	None	All actions implemented. Notice of Compliance issues by the RSR on 13 March 2020.

Outreach programme

Transnet's Phelophepa Healthcare Trains Programme is the organisation's corporate social investment flagship project. In its 26th year of operation, the project operates on a primary healthcare mode and has a footprint in impoverished communities in eight of South Africa's nine provinces. Phelophepa Healthcare Trains I and II are operated by Freight Rail and run for 35 weeks annually across 20 stations nationally. The award-winning Phelophepa programme is recognised worldwide as a global flagship model of primary healthcare.

Phelophepa Healthcare Trains I and II provide quality primary healthcare and health education services to patients under one roof:

- The Health Clinic offers treatment for common illnesses and ailments, diabetes and cancer screening.
- The Dental Clinic is equipped to perform teeth cleaning, extractions and restorations, and has a digital x-ray unit for intra-oral radiography of the mouth.
- The Eye Clinic conducts examinations and treats patients' eyes and sight, produces prescription spectacles in the laboratory on the train and makes available a range of ready-made readers.
- The Edu-Clinics have trained 6 339 volunteers on preventative healthcare.
- The Psychology Clinic continues to provide a valuable link to local community psychologists, social workers and other professionals for follow-up assistance.

Table 13 on the following page details the number of beneficiaries assisted and health services provided through the Phelophepa programme.

Table 13: Number of beneficiaries assisted, and health services provided through the Phelophepha healthcare trains

Category	Number of beneficiaries impacted
Total patients treated on board the trains	105 565
Total patients - Outreach	357 323
Prescriptions/scripts	39 531
Eye Clinic - total patients	37 477
Eye Clinic - spectacles dispensed	45 143
Dental Clinic - total patients	21 095
Health Clinic - total patients	49 985
Edu-Clinic - number of trained community members	6 339
Students for experiential learning	2 500
Local labour	4 830

Key risks and mitigating activities

Enterprise risk management practices ensure that Freight Rail identifies both strategic and operational risks, and that measures to manage these risks and their impacts are implemented while simultaneously identifying and harnessing inherent opportunities.

The top risks listed below were identified during the year under review with appropriate mitigating plans:

Risk description	Key mitigation activities
1. Financial sustainability risk Freight Rail's inability to generate sufficient cash to fund the Capital Programme and meet financial obligations	<ul style="list-style-type: none"> Freight Rail continued to focus on embedding the financial control environment, for example, implementing critical financial reporting controls for all processes. Budgets continue to be monitored monthly, and action plans are developed to close cost/revenue gaps.
2. Operational efficiency and productivity risk Inability to move available volume targets due to operational inefficiencies and productivity challenges, i.e. improving the reliability and predictability of rail services through continuous improvements in service design, turnaround times, OTD and OTA, improved rail network availability, adequately maintained and available rolling stock, and less safety and security incidents	<ul style="list-style-type: none"> Freight Rail continued to address systemic operational challenges for the year under review. A stringent monitoring protocol for the planned Routine Maintenance Programme for infrastructure was developed to manage the risk of non-availability of rail network, and a focused effort was placed on reducing speed restrictions as well as stabilising the network to improve efficiencies. There was a continued focus on the Roadmap to Safety (R2S). Maintenance Intervention Plan that is focused on fault management, planning, compliance and supervision to mitigate against operational incidents. Rail Operations was reconfigured to operations corridors to grow freight; improve asset utilisation and optimisation; improve efficiencies; and reduce the cost of operations for a positive impact on customer services.
3. Regulatory risk Commercial pricing risk (Competition Act, No 89 of 1998) with R6 billion potential exposure (maximum penalty: 10% of Transnet's previous year turnover)	<ul style="list-style-type: none"> Freight Rail continues to cooperate with the Competition Commission regarding complaints. All requested information has been provided, and Freight Rail continues to engage the Competition Commissioner.
4. Safety risk Inability to provide and to sustain a safe operational working environment for Freight Rail employees	<ul style="list-style-type: none"> Implementation of safety initiatives such as activity-based risk assessments, pre-shift safety briefings and an improved awareness drive on causes and controls to mitigate incidents. Efforts continue to be placed on an effective rail maintenance regime.
5. Energy supply risk Uncertainty regarding the supply of energy by municipality or Eskom (Reinstated risk - 2016)	<ul style="list-style-type: none"> In order to mitigate the risk of an unstable supply of electricity, Freight Rail has procured standby generators for all Central Train Controls to ensure the continuation of train authorisations in the event of load shedding. In addition, Freight Rail will continue rolling out energy-efficiency initiatives as part of the ISO 50001 implementation.
6. Security risk Impact of security-related incidents on Freight Rail	<ul style="list-style-type: none"> Initiatives such as the deployment of drones and physical guarding to specific hotspot areas have increased the City Deep security interventions and yielded some benefits. A more focused approach to security technology initiatives is being explored.

Risk description	Key mitigation activities
7. People risk Inability to mobilise and engage employees towards attaining Freight Rail's objectives	In 2019, the people management initiatives focused on implementing strategies to improve: <ul style="list-style-type: none"> • Employee engagement and morale; • Talent management; • Rewards and recognition programmes; and • Wellness and health management protocols.
8. Contract management risk Ineffective contract management in Freight Rail	In order to mitigate the risk of irregular expenditure as per the Public Finance Management Act, No 1 of 1999, emphasis has been placed on: <ul style="list-style-type: none"> • Ensuring that all contracts have been captured on SAP CLM (an onsite application that provides an end-to-end solution for the procurement process); and • Improving controls in the procurement space, including the development of a "Tool Kit" comprising templates, processes and procedures to assist contract owners, managers and administrators with contract management plans for all high-risk or high-value contracts.
9. Environmental risk The effects of climate change on rail operations and the impact of railway operations on the environment	<ul style="list-style-type: none"> • Freight Rail continues to be a responsible environmental citizen and exercise its duty of care obligations as required by the National Environmental Management Act, No 107 of 1998. This includes the execution of the Pollution Elimination Programme to reduce the effects of pollution on the environment. • Due to its vast geographical footprint, Freight Rail continues to be exposed to the effects of climate change especially in respect of flooding, lightning strikes as well as the effects of extreme temperatures on the network. Climate change adaptation and mitigation plans have been developed.
10. ICT risk Inadequate information and communications technology (ICT) infrastructure to achieve its business objectives	<ul style="list-style-type: none"> • In order to address this risk, the Freight Rail ICT Roadmap is being implemented to provide the business with the requisite enablers to execute the business objectives. • In addition, Freight Rail deployed a number of digital solutions to improve service to customers and to curb costs. These include the launch of its first customer interactive online ordering platform as part of the revamped Transnet online app that will feature new functionalities to improve customer services and internal controls.
11. Market growth risk Inability to sustain and attract volumes	<ul style="list-style-type: none"> • Increased efforts have been placed on ensuring a focused customer engagement strategy. Initiatives regarding the citrus industry, emerging miners and road to rail have yielded positive outcomes.
12. Community unrest risk Community unrest impacts on Freight Rail's business operations	<ul style="list-style-type: none"> • Stakeholder engagement plans have been implemented to establish community engagement forums in cooperation with local government and associations to mitigate the impact of community unrest close to the rail reserve.
13. Prasa interface risk Inability to utilise Prasa's rail network to execute the Integrated Train Plan within the affected areas of operations	<ul style="list-style-type: none"> • Freight Rail has identified alternative routes within the affected areas, including alternative destinations and staging sites for affected trains, as part of the business continuity programme should the Prasa network be unavailable.

Opportunities

- Develop new customer value propositions to exploit potential opportunities ranging from agri-processing to manufacturing and fast-moving consumer goods:
 - Seek opportunities for growth in bulk inputs and new opportunities for finished cement products;
 - Consider new operating models – including hub or multi-user facilities for new entrants who do not have rail sidings or facilities and to capture potential imports;
 - Pursue private sector participation models for specialised wagons to utilise return legs and bimodal to enable road-rail options and reduce double handling and high costs;
 - Explore opportunities to create mega depots to attract more loaders to load larger consignment sizes to lower logistics costs with the possibility of using an empty leg; and
 - Explore opportunities in the secondary sector of the timber value chain.
- Pursue regional growth areas on fuel volumes, e.g. Maputo to inland and Botswana as well as diesel for mining.
- Leverage private sector participation through the completion of branch line concessions.
- Implement cost-control initiatives to sustain the business.

Abbreviations and acronyms

Capecor	Railway line between Johannesburg and Cape Town
CSI	Corporate social investment
CWIP	Capital work in progress
DIFR	Disabling injury frequency rate
EBITDA	Earnings before interest, tax, depreciation and amortisation
Gtkm	Gross tonne kilometre
ICT	Information and communications technology
ITP	Integrated train plan
mt	Million tonnes
Natcor	Natal corridor line from Rietvlei in Gauteng to the Durban Harbour in KwaZulu-Natal
Ntkm	Net tonne kilometre
OTA	On-time arrivals
OTD	On-time departures
Prasa	Passenger Rail Agency of South Africa
SOC	State-owned company
Southcor	South corridor line linking Port Elizabeth and East London
TEU	Twenty-foot equivalent unit



