“A melancholy, long, withdrawing roar”

Railways in the Economy of Southern Africa

Report for The Brenthurst Foundation

David Williams

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The Brenthurst Foundation

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REPORT FOR BRENTHURST FOUNDATION

"A melancholy, long, withdrawing roar":[1]

Railways in the Economy of Southern Africa

"The railway is my right hand, and the telegraph is my voice."

- Cecil John Rhodes[2]

"The railway line is a great Imperial link. The more direct and intimate the connections, physical and personal between these countries in Africa, and the greater their mutual interests, the sounder and more friendly will become their general relationship."

- Lord Buxton, Governor General of South Africa 1914-1920.[3]

"No single organisation is truly leading African railways transformation."

- African Development Bank, 2015[4]

"South Africa has more than 150 years of experience with the railways. We should be leading and integrating the continent. We've not stepped up."

- Mesela Nhlapo, CEO African Rail Industry Association, 2021[5]

[1] From "Dover Beach" – Matthew Arnold
[2] "Sun, Steel & Spray - A History of the Victoria Falls Bridge" (2011) - Peter Roberts.
[3] Story of Cape-to-Cairo, Vol. 1, 1916 - Foreword.
[4] African Development Bank Rail Infrastructure in Africa: Financing Policy Options (2015)
[5] ARIA Webinar, August 2021

A WASTED CENTURY: HOW POLITICS AND WAR TRUMPED ECONOMICS

On the 26th August 1975, a conference took place aboard a South African Railways (SAR) train halfway across the Victoria Falls Bridge over the Zambezi River. The river was the border between the unrecognised state of Rhodesia (today Zimbabwe) and Zambia. The brokers of the meeting were the South African Prime Minister, BJ Vorster, and his Zambian counterpart Kenneth Kaunda – an unlikely combination, given the hostility among southern African “Frontline” states countries towards the apartheid policies of South Africa. Joining Vorster and Kaunda in the lounge car of the SAR’s presidential “White Train” was the Prime Minister of Rhodesia, Ian Smith.

In broad terms, the meeting on the neutral “territory” of the railway bridge was an expression of Vorster’s foreign policy of “détente”, which aimed to improve South Africa’s relations with the Frontline states by facilitating a political settlement in Rhodesia, and ultimately in Namibia (then South-West Africa).

However, there were immediate pressing issues to be discussed. In January 1973, Smith announced the closure of border posts with Zambia, including Victoria Falls, demanding assurances that Zambia would no longer allow insurgents to launch attacks against Rhodesia. In response, Zambia closed its side of the border on 1st February. Despite this, economic realities prevailed. Freight was still being transported over the Victoria Falls Bridge: “A Rhodesian engine would reverse a string of coal or grain trucks out on to the middle of the bridge, and a Zambian engine would back up onto the bridge and pull them into Zambia, and vice-versa, several times a day.”[6]

International interest in the conference was keen, heightened by the vivid images of the coaches parked high above the famous river. Charles Mohr reported from the Victoria Falls for the New York Times: “Mr Kaunda and Mr Vorster came here yesterday to oversee the Rhodesian talks, meeting face to face for the first time in an unexpectedly dramatic manifestation of southern African détente that each man has sought for the last year.

“The meetings here were considered the biggest breakthrough yet, in Mr Vorster's long campaign to try to end South Africa's diplomatic isolation and her position as a pariah on the African continent. He looked understandably pleased, and called the conversations, which began before 8am and went on until a blood-red moon had risen over the Zambezi, ‘very interesting and pleasant.’ ”[7]

The event was rich in nuanced symbolism. The White Train coach in which the leaders conferred had been part of the special train built for the Royal visit to South Africa in 1947. It was a visible relic of a colonial link with Britain, shared by South Africa, Zambia and Rhodesia. The name of the venue, Victoria Falls, reflected a Eurocentric view, best reflected in the common phrase that David Livingstone had “discovered” the falls, as if no human before him

6 Zambezi Book Company https://www.tothevictoriafalls.com/vfpages/tourism/political.html
7 New York Times, August 26, 1975

had seen them. However, Vorster’s deliberate and dramatic meeting on equal terms with Kaunda signalled a large crack in white solidarity and a conscious departure from a colonial past.

Although no formal agreement was reached and the conference broke up after one day, its significance was huge. For the first time, Vorster was indicating that South Africa’s support for a white-run Rhodesia would be limited and conditional. Despite Kaunda’s rhetoric, his presence was an admission that his country’s economic survival depended on trade with the white South. The meeting on the bridge was literally an act of railway diplomacy; it was also a reminder of a vital economic link that had existed for decades, and that the railway was perhaps the most important element in the diplomacy of the region.

Vorster’s delegation to the Victoria Falls included the suave Dr Hilgard Muller, Foreign Minister since 1964, and the Secretary for Foreign Affairs, Brand Fourie, a 40-year career diplomat. If these two represented the soft glove of apartheid, the presence of Hendrik van den Bergh of the sinister Bureau for State Security (BOSS) was the iron fist underneath. However, another senior member of the delegation went largely unnoticed by the media. He was Dr Kobus Loubser, General Manager of the SAR.

In September 1979, Dr Loubser delivered a lecture entitled “Transport Diplomacy – With Special Reference to Southern Africa” at the Institute for Strategic Studies at the University of Pretoria. He recalled what was discussed in 1975 at what he called the Bridge Deliberations. Vorster “said to President Kaunda of Zambia that the road to prosperity went through the South, but that the road to the North might bring bankruptcy. He called in Premier Ian Smith of Rhodesia, and the latter undertook to keep the railway line open at all times. Premier Vorster even undertook to guarantee that it would be so.”[8]

The railway goods service linking Zambia with South Africa continued unofficially, but was formally restored in 1978, when Kaunda said: "This decision has been taken as a result of unprecedented limitations of the other routes which we have been using so far".

Dr Loubser noted that “when agreement between us and Zambia Railways was signed in 1978, the unloading of the first cargo of fertiliser was already under way at East London. Two trains per day - one each from Komatipoort and East London, via Beit Bridge and Mafeking, respectively - were arranged to convey fertiliser to Zambia. On the return trip, Zambian copper was carried for export through East London.

“To enable them to cope with the traffic, diesel locomotives were hired to both Rhodesian and Zambia Railways. We also undertook the repairs to the main components of Zambia's diesel locomotives. Approximately 1,500 to 2,000 trucks were made available to convey freight daily north of Victoria Falls to and from Zambia and Zaire.

“Apart from the 240,000-305,000 tons of Zambian copper that are exported annually, some 35 trucks of maize, wheat, fertiliser and general goods are railed daily to Zambia. To this must

[8] Kobus Loubser - paper “Transport Diplomacy”, 1980, Southern African Editorial Services

be added a further 35 trucks to Zaire, of which 25 per day are loaded in Zimbabwe-Rhodesia and ten in South Africa."

South Africa had maintained a similar railway relationship with Mozambique under the Portuguese and then the hostile Frelimo government, despite the absence of formal diplomatic relations. Railways became a tool of diplomacy by other means.

Vorster had a strong-man image and he was certainly in a powerful position politically when he met Kaunda and started putting pressure on Smith – but indefinite white rule was no longer a given.

Things looked very different in early 1974, when Vorster's National Party (NP) won the whites-only general election with 123 seats out of a possible 171. The economy was booming, with GDP growth later calculated at 6.11%, higher than in every year but one (1980: 6,62%) over the next 50 years to 2023.[9] Unemployment among black South Africans in 1974 (possibly excluding the "homelands") was at 13.5%, and among whites, coloureds and Asians (to use the nomenclature of the time) unemployment was at around 1%.[10]

The self-confidence of the apartheid state was probably at its zenith. The Soweto uprising, the draining decade of war in Namibia and Angola, and of civil unrest and states of emergency in South Africa – all that still lay ahead. Apartheid seemed impregnable, and the release of Nelson Mandela and the advent of democracy just 15 years later was entirely unthinkable.

However, in one of history's neat coincidences, Vorster's great 1974 electoral triumph was announced on 25th April 1974 - the same day that Marcelo Caetano, Prime Minister of Portugal, was ousted by a military coup in what became known as the Carnation Revolution. At a stroke, the geopolitics of southern Africa would see the most radical changes since the Anglo-Boer War.

The new government in Lisbon was strongly opposed to the unpopular colonial wars in Mozambique and Angola and resolved to swiftly end Portugal's 500-year colonial presence in Africa. Within two and seven months respectively, Mozambique and Angola were independent countries.

Vorster's response, for those who had watched him in the 1960s as a dour and ruthless Minister of Police and then Justice, was more nuanced. "We must view the developments in Moçambique in the light of our own policy, which is based on self-determination," said Vorster. "Several neighbouring countries are under Black governments and we ourselves are in the process of creating some more by leading our own Black homelands to independence. The emergence of a Black government in Moçambique therefore does not upset us in the least."

Vorster wanted to prove the "African" credentials of the Afrikaner state, writes Jamie Miller, and "he wanted to "find areas of common ground with African leaders to do so … This meant

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[9] Macrotrends - "South Africa GDP Growth Rate 1961-2023" - data source World Bank

[10] Development Southern Africa Vol 1, November 1984 – "Unemployment in South Africa: Trends, Causes and Cures" - Trevor Bell and Vishnu Padayachee

redefining the white polity’s interests and identity in purely national terms, which cut across traditional transnational racial affinities with white Rhodesians and South-West Africans. The consequences of this thinking would turn out to be dramatic in both places.”[11]

THE GREAT IRONY

Most of the main railways in southern Africa had been built before South Africa became a country in 1910 and long before the other countries in the region ceased to be British colonies and gained independence. However, to this day the network has never approached the economic potential that was obvious more than a century ago.

The excitement provoked by the potential of railways was reflected in the speed at which connections were built. The original line into Rhodesia from the Cape Province was via the Bechuanaland Protectorate (now Botswana). The obvious route would have been through the Transvaal Republic, which was so hostile to Britain at the time that such a project was unthinkable.

Cecil John Rhodes, after whom a country was named and whose reputation has seen a steep decline in recent decades, was one of the drivers of continental railway expansion, through his British South African Company. He dreamed of a Cape-to-Cairo railway that would open up the continent (on behalf of the British Empire, naturally). Others saw economic benefits beyond that, and long after Rhodes’ death the idea remained alive.

Rhodes was a man in a hurry. The great railway contractor George Pauling undertook to Rhodes to build 400 miles of track in 400 days, and did so: the line from the Cape Province to Bulawayo was completed in November 1897. The British Secretary of State for Colonies, Joseph Chamberlain, predicted that the railway “will afford aid and stimulus to every form of enterprise, and will join north and south together.”[12]

Further development was halted by the Anglo-Boer War, and it was not until December 1902 that Salisbury and Bulawayo were linked.

The foundations for the Victoria Falls Bridge were in place by August 1904, and the bridge itself took another 14 months to complete. When the first test train of 610 tons, travelling at 15 miles an hour, crossed the bridge, there was a deflection of no more than 2cm. As if to endorse the mathematical precision of the achievement, the bridge was officially opened by the Professor of Astronomer in the University of Cambridge, Sir George Darwin, son of Charles Darwin. (Rhodes himself never lived to see the bridge, though it had been his

[11] “Apartheid South Africa and the Collapse of the Portuguese Empire”- Paper by Jamie Miller (November 2016). Published by Cold War International History Project, Wilson Centre

[12] OS Nock - Railways of Southern Africa (1970)

explicit instruction to build it “across the Zambezi where the trains, as they pass, will catch the spray of the Falls".)[13]

After the Anglo-Boer War, South Africa had to focus on economic recovery rather than expansion. Political union in 1910 was followed by World War 1; depressed economies in the 1920s and 1930s; and World War II. The regional railway network was in place, but was never developed beyond the busy links between South Africa and Mozambique, and with Northern and Southern Rhodesia.

For South Africa itself, however, railways were a key economic driver and enabler for more than a century after the first train ran at Durban in 1860. By the time of Union in 1910, all the major cities were linked by main lines and there were many important branch lines serving agriculture and sustaining rural communities.

The South African rail network continued to expand until it reached its peak in route kilometres in the late 1920s. Nearly all goods traffic went by rail. At any given moment, night and day, dozens of trains were moving on the network. At their height in the 1970s, the railways were the country’s biggest employer, with 230,000 black and white workers, and by far the biggest and most efficient network in Africa.[14]

When Vorster, Kaunda and Smith met in 1975, the South African Railways & Harbours Administration was probably at the height of its reach and capacity. It is ironic that this was precisely when apartheid prevented the region from openly reaping the benefits of this economic power. By the advent of democracy two decades later, Transnet (as the SAR & H became) was still seen as the regional leader, but was in steady decline. To adapt a phrase that was used to describe Turkey’s position in Europe in the 19th century, South Africa in the 21st century became “the sick man” of Southern African rail.[15]

TRANSNET’S PROBLEMS - STATE OF PLAY 2023

LOCOMOTIVE SHORTAGE

Transnet admitted in its annual report for 2022/2023 that “the performance of the entire logistics system was affected by key constraints, which include the lack of locomotives, the poor state of infrastructure and the high number of incidents of crime, vandalism and sabotage.” It recorded a R5 billion loss, as revenue dropped to R72.9bn from R98.6bn, while operating expenses surged to R45.9bn and borrowing increased to R130bn in the past five

[13] Railways of the World (London 1933) – Chapter 11, Rail Enterprise of Africa
[14] OS Nock, Railways of Southern Africa (1970)
[15] David Williams – “Why are there so many trucks on the road – and so few trains on the tracks?” – 2021, Brenthurst Foundation

years. The massive maintenance backlog, valued at R50bn, added to poor asset health and weak operational performance.[16]

The shortage of locomotives is due mainly to the disastrous contracts, concluded in 2014, to buy 1,064 locomotives from four different foreign companies. At least two Chinese companies were found by the Zondo Commission to be corrupt in their dealings with Transnet, and National Treasury made it clear that the agreements should be overturned.[17]

In March 2021 Transnet and the police Special Investigating Unit (SIU) launched an application in the High Court to set aside the four contracts with the original equipment manufacturers (OEMs). “The application by Transnet and the SIU is lengthy. The founding affidavit is over 800 pages long and the annexures stretch into many lever-arch files. The application is based on the extraction and analysis of over 29 million documents.”[18]

In the same month Transnet announced that the Chinese company CRRC, the main contracted supplier of locomotives, was “unwilling to engage with the relevant authorities in South Africa to normalise its operations in the country”. This was bureaucratic language for saying that the Chinese company was refusing to supply the remaining locomotives, or to send spare parts for those already delivered.

“As a matter of urgency,” Transnet continued, “in the next few weeks we will therefore be issuing an open, competitive tender inviting any eligible original equipment manufacturer (OEM) to step in to rehabilitate the non-operational Chinese locomotives. This is a critical intervention not only for Transnet’s sustainability, but for the South African economy.”[19]

Nearly three years later, the gaps are still not filled. The three major rail corridors affected by the missing locomotives accounted for roughly 50% of Transnet Freight Rail’s revenue, and support three primary mining sector segments: export coal, chrome, and manganese. The number of locomotives still not delivered is 99, and another 161 are non-operational and requiring spares and repairs. One of the consequences is the drastic drop in efficiency on the Richards Bay coal line and the failure of the Durban-Johannesburg mainline (the Container Corridor) to recover its traffic. That in turn has led to massive road and port congestion, with severe economic knock-on effects for importers and exporters, and eventually for the South African economy as a whole.

CRIME AND SAFETY

The country’s Rail Safety Regulator State of Safety report for 2022-2023 revealed what it called “a disturbing truth: a staggering 97% of security-related incidents are attributed to theft and vandalism. This statistic paints a distressing picture of a situation spinning out of control”.

[16] Transnet Annual Report 2022/2023
[17] Zondo Commission of Enquiry, Section II, Transnet
[18] Transnet media statement, January 23 2021
[19] Transnet media statement, January 23 2021

During the reporting period (April 2022 to March 2023), railway operations were “severely curtailed” by under-maintenance of railway assets, procurement corruption, rampant theft and vandalism of railway assets, the electricity crisis and the sluggish economy following the Covid pandemic.

There was a 14% rise in the number of security-related incidents, despite the 30% decrease in Transnet train kilometres travelled since the 2018/19 reporting period, and an 11% Increase on the previous year in total train derailments per million train km – and a 28% Increase in derailments per million train kilometres since the 2018/19 reporting period, despite a 42% decrease in kilometres logged.[20]

Cable theft – mainly of overhead electrical equipment and signalling wire – has been a crippling problem for Transnet for at last a decade.

In February 2021, Transnet announced that it “continues to intensify efforts to halt cable theft and infrastructure vandalism, an issue which has escalated to a national problem in recent years. Transnet’s interventions include the redeployment of personnel and other resources to the most affected lines, increased use of technology, collaboration with law enforcement agencies, customers and other state-owned companies affected by the theft and vandalism”.[21]

These interventions clearly did not work. In June 2021, Transnet estimated that it was losing about 120km of cable to thieves every month. In August 2021, it published several “24-hour cable theft reports”. They revealed that in just four days, between the 5th and 12th August, a total of 16,266 metres (16.2km) of cable was stolen. ”[22]

More than two years later, Acting CEO Michelle Phillips told Parliament’s portfolio committee on transport that “Transnet has to get to grips with vandalism, cable theft and the destruction of infrastructure, over and above its financial and operational woes”. She said that while hundreds of suspects had been arrested, conviction rates were as low as 4%. “We are faced with several criminal elements who are hell-bent on destroying the good work we have been doing and unfortunately it prevents us from doing what we need to do.”[23]

CAN THE SICK MAN RECOVER?

Government has been responsive, in principle at least. In October 2020, the Presidency established Operation Vulindela in the National Treasury to “urgently implement” structural reforms and remove obstacles to economic progress. One of the aims was to establish “a competitive logistics network” and create “a transport economic regulator that will oversee third-party access to the rail network”. Alongside this would be the creation of an “infrastructure manager” (IM) within Transnet who would be “responsible for the allocation

[20] Rail Safety Regulator, Annual Report 2022-2023
[21] Transnet media release, February 5 2021
[22] Transnet media release, June 16 2021
[23] Address to Portfolio Committee, quoted in Business Day, November 8 2023

of train paths and management of the freight rail network, including third-party access by private rail operators”. It was not clear why the functions described could not be carried out immediately by existing Transnet structures and personnel.[24]

Sean Phillips, head of Operation Vulindlela, said the target date for enabling third-party operators in the freight sector was August 2022, “with ongoing efforts to accelerate the time frame put on the table by Transnet.”

Melesa Nhlapo, CEO of the Africa Rail Industry Association, said with more than a hint of impatience that “the table is set for the practical implementation of third-party access. No new regulation or legislation is required for implementation, South Africa’s unutilised track network capacity is vast, and there is a body of around 58 million tonnes per annum of freight that will move to rail when rail capacity grows, benefiting sectors like agricultural commodities, metals and minerals, cars, containers, hazardous chemicals and liquid bulk”.[25]

However, by the end of 2023, there were still no agreements in place to engage private rail operators. Transnet had said in 2022 that it “had commenced with the sale of slots” on two key rail corridors, the Container Corridor (Gauteng to Durban) and the South Corridor (Gauteng to East London), and was “inviting interested and qualifying operators to respond”. There were 19 interested bidders, which indicated the potential appetite for private-sector involvement in rail. However, the catch was apparently the provision “for a 24-month period between 2022 and 2024”.[26]

In the end, only two companies submitted proposals and just one received a slot. As the Financial Times commented, “Many investors were put off by slots being available only on short-term contracts, despite requiring rolling stock investments that might take decades to pay off. Transnet’s recent experience suggests marrying private capital to South Africa’s failing state monopolies was easier said than done”.[27]

Still, at least a start seemed to have made after two decades of talk. It was announced that the successful bidder, Sheltam Traxtion, would start in March 2023 to operate the railway line between Kroonstad in the Free State province and the port of East London. This did not happen and the agreement was cancelled without publicity or explanation by Transnet later in 2023.

This development was described by Daily Maverick as “bewildering and dismaying. It was an initiative that held great promise … Several preposterously unrealistic conditions, ranging from a two-year timeframe for capital investment projects that often require 10 years for meaningful change, to Traxtion needing to make use of 75% of Transnet Freight Rail’s rail slots while this infrastructure is inherently dysfunctional, when taken together, make one wonder whether the entire exercise was sabotaged from the start.

[24] Presidency, Operation Vulindela Progress Update 2023/24
[25] Webinar hosted by the African Rail Industry Association (ARIA), 2021
[26] Transnet media release, April 1 2022
[27] https://www.ft.com/content/db3889e3-738f-401b-ba68-107d4e448576

"Without having access to the internal desires or intentions of those who drew up the tender specs, it's impossible to definitively conclude it was deliberately designed to fail. Whether this was a result of oversight, bureaucratic inefficiency or other motives remains a matter of speculation.

"What is clear, however, is that the tender's design was riddled with flaws so significant as to create an environment that is actively hostile to any business prospects.[28]

Slow and clumsy as it has seemed, Transnet has shown itself willing to align itself with the national rail policy of restoring branch lines. In 2021 it announced the reopening of the Cookhouse-Blaney line in the Eastern Cape after a R26 million rehabilitation programme. The 200km line, with a volume projection of 30 000 tons per year, was expected to provide "an important in-bound rail transit between the East London Industrial Development Zone (IDZ) and the Coega IDZ".[29]

After many years of neglecting the transport of grain, a natural cargo for rail, Transnet said in 2023 it had developed a "grain strategy in collaboration with the private sector. All South African Co-op silos were visited to jointly develop solutions for shifting grain from road-to-rail".

However, such good intentions have been regularly expressed over the past two decades, to no effect.

In October 2023, it was reported that South Africa had exported 3.65 million tons of maize in the 2022-23 season due to unexpectedly high demand. Maize industry production was growing at 7% per year. Konrad Keyser, chair of the SA Cereals and Oilseeds Trade Association (Sacota), told the association's annual meeting that the lack of rail transport is one of the major problems hindering exports, and that Sacota was holding monthly meetings with Transnet to try to improve the situation. "Although incidents like cable theft have an impact, the emphasis is more on efficient scheduling and loading of cargoes than capacity issues. Where Transnet could transport 55,000 to 70,000 tons of grain monthly two years ago, it now averages only 13,000 tons. This is while exports average 268,000 tons".[30]

Such reports reflect the loss of rail's market share of a product that for much of the 20th century was transported almost entirely by train. They should also be seen in the light of previous promises and plans.

Ten years ago, Transnet announced a seven-year business plan which would grow grain delivery "from 201 million to 350 million tons".[31]

Yet in 2019, six years later, a Transnet report admitted that "we have not made any significant progress to capture market share, despite significant capex". Since 2013 R165.6bn had been invested overall on freight capacity, but rail volumes increased by only 1.7%.

[28] Daily Maverick November 1 2023
[29] Transnet media release, October 7 2021
[30] African Farming, October 16 2023
[31] Grain SA report, 2013

The Transnet report refers to the South African agricultural sector’s “biggest changes in the last 30 years,” including higher yielding crops, higher output on smaller land size, development of grain storage on farms (about 40% of crops no longer use legacy rail-linked silo’s), and 90% of crop movements on road. Despite the strong growth in the sector, Transnet admitted it had remained uncompetitive, retaining “inefficiencies from before the deregulation of transport,” with no upgrade in silo logistics capacity in 40 years.[32]

In 2023 Transnet also announced (again) that it had renewed its concept of offering more branch line concessions to the market. It referred to the Paarl-Franschhoek concession, “which operates the Wine Tram and continues its growth in tourist ridership in the Western Cape”. The Wolseley–Prince Alfred Hamlet concession “has increased its shift of refrigerated container freight from road to rail and its seasonal tourist passenger services with great success.” Such initiatives are clearly worthy, but they are too few and lack the scale necessary to make a national economic impact. Such initiatives have been launched made periodically since the turn of the 21st century, to little lasting effect.[33]

Another apparently bold and positive step was the conclusion of a 20-year concession agreement with Sbhekuza Women Investments (“Sbhekuza Rail”) for the development and operation of the 281km Mthatha-Amabele branch line in the Eastern Cape.

Such announcements provoke a sad sense of de ja vu. It is quite possible that in 2023 there is no personal or institutional memory among Transnet managers of a very similar attempt that succeeded (and then failed) 15 years ago. The Eastern Cape government launched the ambitious Kei Rail Project, which in 2008 reopened the very same Mthatha-Amabele line at a cost of R133m (2023 value: R270 million). Trains ran for two years, with passenger tickets heavily subsidised. In October 2010, the service was abruptly suspended because the Eastern Cape government ran out of money. Hundreds of millions of rand had been wasted.[34]

REGIONAL RAIL - STATE OF PLAY

In 1974, the African Union of Railways (AUR) was established to achieve optimum use of the railway systems of African countries. It aimed to develop an integrated rail policy for the continent; bring about uniform standards; interconnect rail systems of the various countries; establish large railway training centres; and cooperate in purchasing railway material to achieve economies.[35]

The irony was that, at the time, the two leading national railway systems on the continent, South African Railways and Rhodesia Railways, were the only two whose countries were not members of the Organisation of African Unity, and therefore also not of the AUR. Little has

[32] “Grain on the Move – a Transnet Perspective to Increase Freight on Rail” – Transnet, August 14 2019
[33] Transnet Freight Rail Report 2023
[34] “Trucks and Trains” - Brenthurst Foundation Report, April 2021.
[35] J Loubser, “Transport Diplomacy”

come of the AUR's intentions of half a century ago, beyond a plethora of grand visions that continue to have little relationship to what has happened operationally.

Early railway development in Sub-Saharan Africa followed a similar pattern across countries. Typically, isolated lines were built by colonial powers from ports, connecting with trading centres or mines, and gradually expanding with the addition of branch lines over time. While many of these railways were initially state-owned, others were constructed as concessions or by mining companies as integral components of their operations. Despite grand master-plans proposed for over a century, the majority of African rail lines remain disconnected.

"Except for the railways immediately adjacent to South Africa," noted the World Bank in 2020, "those that have not been either partly or wholly concessioned have continued to deteriorate over the past two decades. In a number of cases these declines will prove to be terminal, as many railways have been left to deteriorate for too long and it will require major investment to permanently reverse the situation."[36]

The Southern Africa Development Community (SADC) pointed out the obvious in 2012: "The SADC regional railways, which are extensive and contiguous, operate on a common gauge (Cape), should be operating as seamless, relatively fast cross-border services, but are instead operated as a collection of national systems. Common technical, operating and safety standards need to be established and enforced in order for railways to operate across borders under the oversight of a regional regulator. The SADC railways generally operate well below their original design capacity, yet they cannot increase their volumes because of poor track condition, lack of locomotive and wagon availability and low operating capital.[37]

In 2017 the Nepad Business Foundation noted that movement of traffic by rail in the SADC region "has been on a decline over the last decade due to a significant under-investment in infrastructure and rolling stock". Less than 10% of surface transport freight volumes were on rail, resulting in significant road rehabilitation costs.

The proposed solution was a single coordinated corridor development plan "to address the modal imbalance between road and rail on the North-South Rail Corridor, which is one of the major transport spines that moves people and freight in the SADC region".

In theory this North-South Rail Corridor runs through the Democratic Republic of Congo, Zambia, Zimbabwe, Botswana, South Africa and Swaziland. It will comprise a rail network of over 4,000km including two deep-sea ports and multiple inland terminals, and will involve seven different rail operators "to deliver a seamless, safe, predictable, reliable and competitive railway service".[38]

What has South Africa's contribution been to developing the North-South Corridor?

[36] "Modern Railway Services in Africa" – World Bank Report, 2020

[37] Regional Infrastructure Development Master Plan, Executive Summary, August 2012 - Southern Africa Development Community

[38] Nepad Business Foundation, 29 May 2017

Transnet’s collective mind has understandably been focused on solving its own problems. A scan of the 350 media releases issued by Transnet between January 2013 and October 2023 reveals just four related to regional railway matters and cooperation with other countries.

However, it has at least appeared to go through the motions. In February 2020, shortly after her appointment as CEO of Transnet (she resigned in 2023), Portia Derby referred to the establishment in 2018 of Transnet International Holdings (TIH), a subsidiary of the group and intended as a contributor to the North-South Corridor concept. This, she said, was “a critical part of investing in the revival of the South African economy and the further industrialisation of countries on the rest of the continent”.[39]

However, there is no mention of TIH or its projects in Transnet’s recent annual reports, and TIH is not listed as a subsidiary or even mentioned. There were early reports of a joint initiative with Ghana Railways, intended to rehabilitate 82km of that country’s Western Line which stretched 340km from the port of Takoradi to Kumasi, but this seems to have come to nothing.[40]

There are other instances of Transnet’s talk not being followed by action.

In October 2017, Transnet issued a detailed media release on “one of its most ambitious projects, the inter-railway initiative between Transnet Freight Rail and Swaziland Railways (now Eswatini Railways). The two-country partnership will see the construction of a 150km railway line from Lothair (Mpumalanga) to Sidvokodvo (Swaziland, now Eswatini). The feasibility phase has been completed. Preparation works are currently underway, and this involves graves relocation, acquisition of servitudes and planning the resettlement of communities.”

This project had been mentioned long before 2017. In October 2011, the French construction company RCA referred to “a proposed rail link” between the two countries. In May 2014, Engineering News wrote that a feasibility study “assessing the best way forward” for the new line was expected by the end of that year.[41]

According to Transnet’s 2017 statement, “the project has been packaged as public-private partnership and the process of finding suitable partners is underway.” The new line would carry trains of 200 wagons and 2.5km long, with capacity for 12 trains per day. Construction would commence “as soon as the funding is finalised,” said Transnet, “and engagements are being conducted on a continuous basis with the existing customers and potential customers to ensure maximum viability and sustainability.”[42]

Nearly six years later, in April 2023, Eswatini Railways noted that the project, now with an estimated value of R32.3 billion, still “requires an investor with rail-road knowledge”. No mention of construction was made, though previous reports had said this “should start” in early 2023.

[39] African Railway Industry Association webinar, February 2020
[40] 13th February 2020 Ghana Ministry of Railways, February 13 2020
[41] Engineering News, May 28 2014
[42] Transnet media release, October 12 2017

In November 2023, the Times of Swaziland reported that the Transnet/Eswatini project was still “currently in its early stages, focusing on resettlement efforts for communities affected by the rail construction” The government of Eswatini, said the Times, “has demonstrated a strong commitment to the project” in allocating R550 million (1.5% of the total project cost) to relocating affected communities.[43]

RAILWAY GAUGE – A SEDUCTIVE RED HERRING

Most of the railways in Southern Africa have the same track gauge (the distance between the rails) – 1,067mm, or 3’ 6”. This is often referred to as “narrow” or “Cape” gauge when compared to the “standard” gauge of 4 ‘ 8 1/2 “ in Western Europe and the United States, with the implication that the narrower gauge is less efficient. This is not so. As the World Bank has pointed out, “modern and effective railways can be operated on many different gauges”. Examples of modern Cape gauge operations include the railways in Japan, operating over 22,000km at speeds of up 160km/h for more than 20 billion passengers per year.[44]

For much of the 21st century there has been talk at the highest level that the solution to South Africa’s railway problem lies in building a broad-gauge, high-speed (HST) network. Such comments reflect ignorance even within the rail industry of economic realities, and a failure of policymakers to interrogate such proposals. A HST link from Gauteng to Durban was one of Siyabong Gama’s pet projects when he was CEO of Transnet before his dismissal. This kind of “projectism” gives the illusion that work is being done, but merely distracts attention from getting the present network, which is functioning far below capacity, to work properly.[45]

The World Bank advises that when a country has an existing railway, it should consider rehabilitation at the current gauge, which is by far the least expensive option. “In general, freight markets in Africa require reliable services (a commercial speed of 40 km/hr is generally quite sufficient) rather than high-speed services,” comments the Bank.

Re-gauging to a broader track would require expanding the rail permanent way, reconfiguring yards and station platforms, redesigning bridges and tunnels, and would typically cost about three times as much as rehabilitating at the existing gauge. Building a new standard gauge line would cost about six times as much. More to the point, the estimated 34,000km of railway, in various states of repair, in the Southern African Development Community countries would have to be re-gauged in its entirety to maintain a regional network.[46]

Most current rail infrastructure can be made functional with minimal upgrades and is simply not operating at capacity.[47]

[43] Times of Swaziland, November 28 2023
[44] World Bank railway report, 2020
[45] Interview with author, May 19 2009
[46] World Bank railways report, 2020
[47] SADC Regional Infrastructure Development Master Plan, Executive Summary, August 2012

BUSINESS MODELS – THE SOUTHERN AFRICAN EXPERIENCE

ZAMBIA AND TANZANIA

The idea of building a railway through what was then Northern Rhodesia was not new. It was part of Rhodes’ Cape-to-Cairo plan, but was executed only in the 1970s by Tanzania and Zambia, as part of Kenneth Kaunda’s ambition to free his country of dependence on Rhodesia and South Africa. The 1,800km Tanzam project, as it was known initially, is now officially called the Tazara Railway. It is jointly owned by the two governments.

The line was profitable for about a decade, when equipment was new and costs were mostly operational. For much of its history, however, management has struggled to meet both operational and capital investment costs. In recent years it has fallen into disrepair and hauls a fraction of its design capacity. Experts have said Tazara’s poor performance is due to the two governments’ lack of investment in the infrastructure, with no private partner to provide or attract capital.

Nevertheless the Tazara remains strategically attractive. It is the shortest route to the coast from Zambia. Mining companies in Zambia are said to prefer the port of Dar-es-Salaam because it is now less congested than Durban in South Africa. Transit time on the rails is now shorter than on the southern African route.[48]

In November 2023 it was reported that the Tazara Authority had asked a Chinese company to submit a proposal to operate the line on a concession basis. And according to the American Journal of Transportation, “the railway may compete with a new one that the United States is helping Zambia to build, that will connect the Copper Belt with the existing line running to the Angolan port of Lobito”.[49]

ZIMBABWE

The National Railways of Zimbabwe (NRZ) is wholly owned by the Government of Zimbabwe and is in effect a state department – perhaps the most old-fashioned governance model in the region. It operates “in accordance with public sector rules and regulations”.[50]

However, Zimbabwe is also home to an interesting public-private partnership (PPP), in the entity that runs the Beit Bridge-Bulawayo (BBB) railway line. This became operational in 1999, providing bulk transport between Beit Bridge (on the border between South Africa and Zimbabwe) and the south-western city of Bulawayo, thence north to Zambia and beyond. The NRZ owns just 15% - the other shareholders include South African financial institutions Nedbank and Old Mutual, NLB of Mauritius and South African shipping company Grindrod, under the umbrella of NLPI Limited, which holds 85%.

[48] “The Dilemma of Capital Investment in a Bi-national Organisation: A Case Study of Tanzania-Zambia Railway Authority” by Mwansa Kamukwamba, in China-USA Business Review, March 2020, Vol 19
[49] Matthew Hill and Taonga Mitimingi, American Journal of Transportation, November 2 2023
[50] https://nrz.co.zw/corporate-information/

The instructive element of this project is that that the Zimbabwe government has long accepted the principle of PPPs. It is thereby "relieved from funding infrastructure projects, thereby making such funds available for other needy sectors" such as health and education. It also "reflects the progressive execution of the SADC protocol on transport communication, aimed at increasing private-sector involvement in railways investment".[51]

NAMIBIA

TransNamib, which runs Namibia's railways, had suffered from chronic underfunding from government, its only shareholder, ever since independence from South Africa in 1990. Like Transnet, TransNamib had steadily lost traffic to the roads. Between 2004 and 2007, in an attempt to boost the locomotive fleet, TransNamib ordered 21 new diesel locomotives from China's CSR Ziyang. Some of the new locomotives were wrecked in derailments, others suffered catastrophic fires. Most of the rest failed for lack of spare parts. (One wonders if Transnet consulted the Namibian authorities on dealing with Chinese locomotive companies.)

By the middle of 2014, the locomotive situation had deteriorated to the point that "the country's fuel security was under threat – the railway handles most of the country's bulk fuel requirements – and the government was finally goaded into action."[52]

In November 2022, TransNamib announced plans to shift coal exports from Botswana onto rail by early 2023, potentially doubling exports via Walvis Bay as an alternative to Richards Bay. The intention was to load 50,000 tonnes of coal onto trains at Gobabis, 110km from the Botswana border and about 600km from Walvis Bay. Financing for 20 new locomotives and 300 wagons would come from the Development Bank of Southern Africa (DBSA) and the Namibian Development Bank. The DBSA said the loan would be finalised "by the end of March 2023". However, in August 2023 TransNamib said it was still "in the process" of acquiring R2.1 billion loan from the DBSA.[53]

TransNamib is also considering extending the Windhoek-Grootfontein line to Katima Mulilo (at the eastern end of the Caprivi Strip) to connect with Zambia and Zimbabwe. Described as "a very important artery," this would provide an alternative route from the Copper Belt in Zambia, Katanga province in the Democratic Republic of Congo and northern Zimbabwe.[54]

Nambia has long embraced the concept of public-private partnerships (PPPs), as seen in the Walvis Bay Corridor Group, a Section 21 company. It has government representatives from four different ministries, as well as the municipality of Walvis Bay; the SOEs are the Namibian Ports Authority, the Roads Fund Administration, and the Roads Authority; and from the private sector, there are the Container Liners Operations Forum, the Chamber of Commerce

[51] https://bbr.co.zw/
[52] Paul Ash – International Railway Journal, June 8, 2015
[53] Namibia Press Agency, August 29 2023
[54] Southern Africa Freight News, June 8 Jun 2023

and Industry, the Namibia Logistics Association, the Namibia Transporters Association, and the Walvis Bay Port Users' Association.[55]

ANGOLA AND DRC

The Angolan government operates three separate state-owned lines – Luanda, Benguela, and Moçamedes - each with its own Administrator reporting to the Ministry of Transportation. The Angola National Institute of Railroad (INFCA) establishes the regulations and standards for railroad operations and holds enforcement authority.[56]

In 2018 the International Railway Journal reported that "after a 34-year hiatus, rail traffic between the Democratic Republic of Congo and Angola's Benguela Railway resumed on March 5, when a train carrying 1,000 tonnes of manganese crossed the border between Dilolo and Luau bound for the Angolan port of Lobito".

The 1,344km Benguela Railway was closed during Angola's 26-year civil war. Rehabilitation of the line began in 2006 and the final section was completed in 2013. The railway now provides a route to the Atlantic coast for export minerals from the DRC and northern Zambia. Alongside the restoration of the railway, Lobito Port has been modernised and expanded to increase capacity to 3.7 million tonnes of freight per year, rising to 4.1 million tonnes when the Benguela Railway is operating to its maximum potential. [57]

To improve operations on the Benguela line, the Angolan Ministry of Transport in 2021 issued a PPP tender "to operate, maintain and improve" the Benguela Railway. It was "looking to attract operators specialised in logistics and freight transport, as well as with the expertise to manage, maintain and introduce technical improvements to the infrastructure.[58]

For its part, the DRC government announced a joint venture with Alva Holdings, a subsidiary of a US-based company. It "seeks to acquire financial support for the construction, management, operation of the Railroad from Kinshasa to Lubumbashi". The DRC has significant amounts of minerals such as copper and cobalt that are critical to the growing battery industry, as well as gold deposits.[59]

Such developments in state-private sector cooperation threaten what was once assumed to be South Africa's natural dominance in providing the infrastructure to export the region's minerals.

The DRC's minerals have typically been transported through Zambia to South African ports. "However," says Dr Ralph Heath, MD of the company WSP Africa Earth & Environment, "deteriorating road conditions, coupled with long waiting periods at borders, result in exports taking longer to get to ports. Further delays, owing to the challenges of South African port authorities and general bureaucracy, often arise at the ports. Additionally, transporting

[55] http://www.wbcg.com.na/about-us/members/
[56] https://www.trade.gov/country-commercial-guides/angola-transportation-aviation-and-rail
[57] https://www.railjournal.com/africa/angola-drc-rail-link-restored-after-34-years/
[58] https://www.railjournal.com/financial/angola-to-launch-concession-for-benguela-railway/
[59] https://platform.africainvestmentforum.com/projects/details/185199

commodities through South Africa takes place mainly on road – as opposed to using rail – owing to the degradation of South African railway lines."[60]

South Africa's potential role in regional rail could be further undermined by the development of a new railway line between Zambia and Angola, also serving the DRC. The European Union and the United States are joint supporters of this project, which was announced on the margins of the Partnership for Global Infrastructure and Investment (PGII) event at the G20 conference in India in September 2023. The new line will link up with the port of Lobito, providing "the shortest route linking key mining regions in these two countries to the sea".[61]

MOZAMBIQUE

Mozambique Ports and Railways (CFM) is a state-owned Company "with the responsibility to operate in the transport industry, the Ports and Railways Sector."[62]

However, the private sector has been involved since the early 1990s in managing certain terminals in the ports business. Since 1998, private partners have taken up various concessions in the operation and development of railways and ports. "In this way, CFM has investments in 22 companies, including 15 in the railway and port sector and the remaining subdivided by tourism, hiring of railway equipment, road infrastructure and building materials businesses."[63]

In April 2023 Transnet signed an agreement with CFM to enable the "seamless operation" of trains between the two countries, carrying magnetite, chrome and ferrochrome trains at three trains per day from September. Within months it was able to report that trains to Terminal de Carvão da Matola in Maputo (run by Grindrod in a PPP) had yielded a 23% increase in magnetite volumes.[64]

THE FUTURE OF REGIONAL RAIL

Transnet was once seen as the only potential leader of regional railway revitalisation and growth. However, after Transnet's two decades of decline as a result of bad policy, incompetent management and corruption, it is a shadow of its former self. To make matters worse, as a result of outdated ideology that still plagues South Africa's ruling ANC, Transnet remains behind its neighbours in seizing opportunities to engage in PPPs.

However, there is no shortage of sensible plans, and under new Transnet management and a changing national policy it seems possible that South Africa's railways can recover their competence.

[60] 360mozambique,com, February 20 2023
[61] Railtech.com, September 11 2023
[62] ttps://www.cfm.co.mz/index.php/en/sobre-o-cfm/os-cfm/message-from-the-chairman
[63] https://www.cfm.co.mz/index.php/en/concessions
[64] Southern Africa Freight News 29th August 2023

Clearly, PPPs are the way to go. Urgent action is needed, but caution is also needed. The British railway author Christian Wolmar has argued that “in Europe, a basic failure to understand the workings of railways has led the European Union to enforce rules separating the infrastructure from the operations, in order to allow open access to the tracks. This was designed to free up the market for rail transport and to break up the state-owned monopolies, but these laudable aims have instead created a huge bureaucracy; a bonanza for expensive consultants, lawyers and regulators; complex working arrangements; and greatly added costs to operations.”[65]

The lesson of partnerships in the rest of Africa is that governments have to understand what investors require: a long time horizon, and the prospect of profits. Investors are not interested in full privatisation – they require substantial spending by government on infrastructure, at least initially.

Railways and partnerships or concessions cannot be seen in isolation. It is common cause that one of the main reasons for the shift of goods traffic from rail to road has been significant investment by government in road-building and maintenance, along with a failure to properly regulate increased gross vehicle mass and a general absence of policing of standards.[66]

It follows that governments who want effective railways will need to support railway infrastructure maintenance and investment, just as they do with roads. As the World Bank’s Richard Bullock has pointed out, “the lower that road tariffs are (and the greater the degree of overloading permitted), the lower the freight rates for both road and rail will be and the less funds will be available from a concessionaire to maintain and upgrade the railway whilst at the same time the greater the damage to the road system”.[67]

Bullock also notes that “the performance of a number of concessions has been negatively affected by uncoordinated actions from various government ministries. Examples range from administratively imposed salary increases to restrictions on access to container facilities and unfunded public service requirements imposed on rail operators. Most of these actions could have been avoided if a properly staffed, funded, and authoritative oversight body had existed.” [68]

What is abundantly clear is that there is no shortage of capital for investment in rail PPPs in sub-Saharan Africa. Nor is there a shortage of detailed policies and plans, devised by governments, regional bodies like SADC, and industry associations like ARIA.

If Transnet’s railways and ports are to play a key role in the growth of the region, the South African government needs to demonstrate that it has the necessary political will and ideological flexibility to pursue appropriate PPPs with purpose and enthusiasm. For its part, Transnet itself needs to dispel the impression that its operational executives are mere

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[65] Christian Wolmar, “Blood Iron and Gold – How the Railroads Transformed the World” (2015)
[66] “Grain on the Move – a Transnet perspective to increase freight on rail” - August 14 2019
[67] Richard Bullock, “Africa's Infrastructure: A Time for Transformation” - World Bank
[68] Richard Bullock, “Africa's Infrastructure: A Time for Transformation” - World Bank

reluctant bureaucrats, and to ensure that it has the legal and administrative skills to make things happen quickly.

A statement of clear intent along these lines would get the attention of other railway authorities and investors, along with a purposeful involvement of other government departments, notably International Relations and Cooperation. If railway diplomacy could achieve what it did in economic terms before 1994, despite the toxic burden of apartheid, the opportunities now are huge and should be grasped.