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THE SISHEN-SALDANHA RAILWAY PROJECT IN SOUTH AFRICA: ARGUMENTS FOR AND AGAINST CONSTRUCTION, 1970 – 1976

ABSTRACT

The Sishen-Saldanha railway project was an undertaking of gigantic proportions in South Africa's history, which currently serves as the longest freight train trajectory for iron ore in the world. It became imperative to provide reliable and efficient access to the coast for export purposes in a country with vast mineral resources. After the discovery of iron ore deposits at Sishen in the north-western Cape Province, South Africa's largest mining corporation, the South African Iron and Steel Corporation (ISCOR), took the leading initiative for the proposed planning of a railway line connecting Sishen to Saldanha Bay on the West Coast. As a result of pressing international sanctions, the apartheid government sought to forge ahead with infrastructural developments in order to stabilise economic growth. With the dwindling market exports becoming an ever-serious concern, ISCOR's project was to be a bulwark for ensuring optimum exports and economic development. In political circles, an intense parliamentary debate ensued in 1973 revolving around the acceptance and promulgation of the Sishen-Saldanha Railway Construction Bill. It reflected the controversial discussions between the ruling National Party and the United Party as liberal opposition party on pivotal issues concerning the construction of the railway line. Simultaneously, an underlying contention existed as to the choice of location of an appropriate export port at Saldanha or St. Croix. The author seeks to assess the primary sources pertaining to the proposed Sishen-Saldanha railway during its formative years from 1970 to 1976.

Keywords: *Sishen-Saldanha railway project; Sishen-Saldanha Railway Construction Bill; South African Iron*

and Steel Corporation; Parliamentary Debates; Saldanha Bay; St. Croix; iron ore export; apartheid South Africa.

1. INTRODUCTION

Railways form the backbone of the transportation of mineral goods in most national economies. Its effective development and management is vital to ensure reliable conveying of raw materials demanding a heavy carrying capacity for import and export purposes. Perceived from a politico-economic perspective, the challenges that appeared prior to the 1970s for the tremendous mining riches of South Africa were essentially twofold: namely, the cost of mining and the cost of developing transportation linking the mining area with a coastal port.

With the recovery of the world economy during the post-war period after 1945, the demand for more raw materials and semi-processed goods for manufacturing, construction, and heavy industry, especially in developed nations, increased unabated. Oceanic transport utilising cargo vessels was considered the most cost-effective to convey bulk raw minerals. South Africa was unfortunate that it did not possess navigable waters for inland shipping in the northern mining territories. Unlike the waterways leading to Rotterdam's harbour in the Netherlands, or the Ruhr industries along the Rhine River in Germany, South Africa struggled to transport its raw materials, often over great distances and barren terrain, towards a port capable of providing services for handling its exports. Road truck transport and pipeline use were considered too slurry in form, with the only option falling on the utilisation of railway infrastructure.

In 1975 this stance on the necessity for efficient transportation was reiterated in the *South African Mining Engineering Journal* that commented on the outrageous freight costs compared to other countries as, "South Africa will find it very hard to increase its many mineral exports if transport and harbour facilities are not raised to the standards found in competing countries".[1] It was bluntly stated that "this situation could lead to the very depressing situation that business opportunities may be killed".[2] As a practical solution, the transport line towards a port facility had to be reliable and able to handle large quantities of raw materials, ideally including facilities for refinement, stockpiling and immediate loading onto ships as a basic necessity for the exporting country. This demand prompted the former apartheid government

1 Anon, "Cutting ore export costs", *South African Mining and Engineering Journal*, 1975, p. 28.
2 Anon, "Cutting ore export costs", p. 28.

of South Africa and its principal mining corporation, ISCOR, to consider the construction of a railway line that would fulfil the export markets' needs.

It was a need met with increased urgency. Politically it would stimulate parliamentary debate revolving around the incentives for and against the construction of a railway line from the mining area of Sishen in the north-western Cape Province to Saldanha Bay on the West Coast. Therefore, it is significant to reflect on the political history behind the initial construction of the Sishen-Saldanha railway, officially known as the Sishen-Saldanha iron ore export project, which was to become one of the biggest infrastructural projects in the history of apartheid South Africa.

2. HISTORICAL BACKGROUND

2.1 Railway and infrastructural developments in colonial and post-colonial Southern Africa

The historiography of railway and infrastructural development in Southern Africa has shed light on its evolvement and impact during the colonial and post-colonial eras. Edouard Percy Cranvill Girouard, as Director of Railways of the South African Field Force, elaborated in his *History of the Railways during the War in South Africa, 1899-1902*, on the construction of Imperial Military Railways during the South African War of 1899 to 1902, which led to a network of railway lines extending from the ports of the Cape Colony to the war theatres in the interior.[3] According to *Capital and Labour on the Rhodesian Railway System, 1888 – 1947* by Jon Lunn it was emphasised that "…railways were often what made empire, whether formal or informal, possible".[4] Lunn made it clear that, as part of the Cape to Cairo Railway envisioned by Cecil John Rhodes, railways also led to expanded markets. The recent study by Charles van Onselen's *Night Trains* also pointed out that, despite the advent of the railway in Africa and its "opening up" of the New World, it left behind a legacy of "human degradation and the oppression of the vulnerable".[5] Whereas these studies provides informative analysis of railway histories and developments on a broader geographical scale, this article is intended to primarily concentrate on the political history of the Sishen-Saldanha railway project during apartheid South Africa.

3 EPC Girouard, *History of the Railways during the War in South Africa* (London: Harrison and Sons, 1903), p. 9.

4 J Lunn, *Capital and Labour on the Rhodesian Railway System, 1888-1947* (Oxford: MacMillan, 1997), pp. 1-2.

5 C Van Onselen, *Night Trains* (New York, Oxford University Press, 2019), pp. 8-9.

Since the colonial period, motherlands sought to extract the potential riches of mining resources or empower countries by means of generating hydroelectric power and much emphasis was placed on the development of railway and trunk lines. The aim was to improve trade but also to strengthen the politico-economic status of the Colonial Empires themselves. The geographer Gordon H. Pirie elaborated on the need for railways "as lifelines for landlocked states, for securing territorial dominance and capturing markets and productive sources".[6]

During colonial times, the coming of the railways had adverse effects. It led to the demise of wagoning and transport riding, which many Europeans and Africans had made a stable livelihood. With urbanisation and people migrating to the industrial areas, Pirie pointed out that the railways invariably "helped in the formation of a working class and forged industrial capitalism".[7]

With mineral deposits often located deep in the African interior's vastness, the demand for railway lines appeared to be constantly demanding propositions. The construction of the Rhodesia-Katanga railway line by the British South Africa Company (BSAC) in 1908 was intended to transport copper from the copper-belt in Katanga in the former Northern Rhodesia (today Zambia). Moreover, Pirie explained that the above mentioned railway line was built essentially as a competitive response to the Portuguese (Benguela) line in Angola and the Congolese Matali line under the then Belgian colonial rule.[8]

After Zambia gained independence, the Tanzania-Zambia (or Tazara) railway became a gigantic project, largely supported by Chinese foreign capital. Given Zambia's problematic situation being landlocked and the declaration of unilateral independence in Southern Rhodesia (today Zimbabwe), a stranglehold was placed on Zambia's exports to the sea. The liberation war in Rhodesia also caused the Benguela line to be cut. A study by Holger Bernt Hansen, Greg Mills and Gerhard Wahlers revealed that the effect on Zambia was severe, as it had led to a declining economy and hyperinflation.[9] With the lack of railway transport, Zambia had to rely on foreign financial aid, stressing the importance of available railway lines to enable an effective trade/export system. Thus, these restrictive circumstances

6 GH Pirie, *Aspects of the political-economy of railways in Southern Africa in Environmental Studies*, Occasional Paper, 24 (Johannesburg: University of the Witwatersrand, 1982), p. 27.

7 Pirie, *Aspects of the political-economy of railways in Southern Africa in Environmental Studies*, p. 34.

8 Pirie, *Aspects of the political-economy of railways in Southern Africa in Environmental Studies*, p.19.

9 HB Hansen *et al*., *Africa beyond aid* (Johannesburg: Acumen Publishing Solutions, 2008), pp. 328-9.

prompted Zambia to negotiate with Tanzania to gain a new trade route to the Indian Ocean.

Another key infrastructural project that proved to be one of Africa's most historic in terms of size and operational function was the Kariba Dam scheme.[10] Frank Clements indicated that during the 1950s, a "great argument" had come to the fore in the Federation of Rhodesia and Nyasaland (or Central African Federation) parliament in Salisbury.[11] Clements noted that the project was almost "talked out of existence" since Northern Rhodesian politicians were concerned that the north would lose out whilst Southern Rhodesia would benefit as the leading member state of the Federation.[12]

The successful building of the dam, supported by Italian labourers, was a masterpiece of engineering prowess. According to Julia Tischler, it was a project that promised to bring "light and power for a nation".[13] From a political point of view, Tischler argued that the scheme portrayed an uneven development that created discontent and an underlying reason for the Federation's eventual dissolution.[14] She used the analogy of a horse and rider relationship between Southern Rhodesia and Northern Rhodesia, with Southern Rhodesia being the rider and Northern Rhodesia the horse.[15] With the copper belt located in Northern Rhodesia and the political power vested in Southern Rhodesia, the latter perceived the financial income from copper, and energy generated from the Kariba Dam in Northern Rhodesia, to be principal sources of the Federation's economic revenue.[16]

Considering the geo-politics of South-South infrastructural development in the post-colonial era, Giles Mohan and May Tan-Mullins indicated that the Atuaba gas processing plant and hydroelectric dam at Bui in Ghana projects became "spatially and politically complex" projects.[17] Accordingly, it had the consequence that African governments became more entrepreneurial.

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10 For further reading pertaining to the Kariba Dam scheme, see, J Tischler's *Light and Power for a Multiracial Nation. The Kariba Dam Scheme in the Central African Federation* (New York: Palgrave MacMillan, 2013); MJ Tumbane, *The Management of the Zambezi River Basin and Kariba Dam* (Lusaka: Bookworld, 2010).

11 F Clements, *Kariba. The Struggle with the River God* (London: Methuen & Co, 1959), p. 40.

12 Clements, *Kariba. The Struggle with the River God*, p. 40.

13 J Tischler, "Cementing Uneven Development: The Central African Federation and the Kariba Dam Scheme", *Journal of Southern African Studies* 40 (5), 2014.

14 Tischler, "Cementing Uneven Development: The Central African Federation and the Kariba Dam Scheme", pp. 1051-1054.

15 Tischler, "Cementing Uneven Development: The Central African Federation and the Kariba Dam Scheme", pp. 1051-1054.

16 Tischler, "Cementing Uneven Development: The Central African Federation and the Kariba Dam Scheme", pp. 1051-1054.

17 G Mohan and M Tan-Mullins, "The geopolitics of South-South infrastructure development: Chinese-financed energy projects in the global South", *Urban Studies Journal* 56 (7), 2019.

Railway and infrastructural developments continued after the demise of colonial railway companies in Africa. Pirie stated that with the new African states originated "state-owned railways with successive, differently-focussed regional rail planning efforts".[18] Though development had improved, a study by Cesar Calderon, Catalina and Punam Chuhan-Pole in 2018 has shown that problems of sufficient quality and quantity of expert/trained knowledge persisted, causing Africa's growth to be rated comparatively lower than other world regions.[19]

The post-colonial historiography of infrastructural development projects in Southern Africa focused on the impact of these projects on local African populations. Scholars in the field have openly challenged the motives behind these projects and their often detrimental effects on both the environment and people's lives. In 1985 Peter J. Derman and Clive Poultney made their research findings on the Pongolapoort dam and river floodplain project on the Kwazulu-Natal and Mozambiquan border public.[20] Their study indicated that the controlled flooding from the dam was "not in the best interest of the people living below the dam wall".[21] The impact of this project led to disastrous extensive crop damage. Coupled with a severe drought and the Domoina cyclone, the local communities became impoverished.

As early as 1968, serious concerns arose about the resettlement of people as a direct result of infrastructural development projects. The interdisciplinary study by David Brokensha and Thayer Schudder highlighted the "resettlement stress" caused by dam constructions and man-made lakes in Africa. As a precaution against this stress, they pointed out that project planners need to ensure timely planning. They also raised concerns about the Southern Rhodesian, Egyptian and Sudanese governments, especially concerning the Kariba and Aswan High Dam schemes: "we believe more attention should have been paid to the needs and expectations of those undergoing relocation".[22] Brokensha and Schudder concluded that "resettlement is a formidable task, even under the most favourable conditions".[23]

18 Pirie, *Aspects of the political-economy of railways in Southern Africa in Environmental Studies*, p. 34.

19 C Calderon *et al., Infrastructure Development in Sub-Saharan Africa: A Scorecard* (Policy Research Working Paper, The World Bank, Washington DC, 2018), p.40.

20 PJ Derman and C Poultney, *Management of the Pongolapoort Dam waters: Development potential or underdevelopment perpetuated* (Pretoria: Human Sciences Research Council, 1985), p. 13.

21 Derman and Poultney, *Management of the Pongolapoort Dam waters: Development potential or underdevelopment perpetuated*, p. 13.

22 N Rubin *et al.*, *Dams in Africa. An interdisciplinary study of man-made lakes in Africa* (New York: Frank Cass and Co, 1968), p. 60.

23 Rubin *et al.*, *Dams in Africa. An interdisciplinary study of man-made lakes in Africa*, p. 60.

The study done by Allen F. Isaacman and Barbara S Isaacman on the Cahora Bassa dam project in Mozambique emphasised the issue of seemingly glorified development projects and their social impacts, including forced migration.[24] Isaacman argued that the voices of the oppressed were often obscured or suppressed to deny the effects of the altered river and dam construction, most notably the devastation caused to the riverbanks, wildlife and food security, which the decline in fish populations is evident. Forced labour and the displacement of peasants and labourers were perceived as violent acts by the Portuguese colonial authorities to strengthen their colonial rule of Mozambique.[25] Worldwide, scholars studied the marginalisation of African communities and the suffering of already poor, disenfranchised people or those compelled to leave their historic homelands to make room for a construction project. Dams provided sources of cheap energy that would stimulate production, but the question was at what cost. A study by Elizabeth Colson, for example, elaborated on the 77 000 Gwembe Tonga that lost their homelands after the construction of the Kariba Dam.[26]

The geographer William Adams also analysed the disruptive consequences of river development schemes on farming, fishing and the geographical floodplain.[27] Dzodzi Tsikitas's study on the displaced peoples on the riverside as a result of the Volta River Project in Ghana attests to the arguments formulated by scholars to address formerly untold or unquestioned socio-economic impacts.[28]

Concerning the Sishen-Saldanha railway project, this paper aims to analyse the political discussions during its planning phase, an aspect of its infrastructural developmental history that historians have largely overlooked. Taking into consideration the historiographic literature noted above, the existing railway service, in contrast, remains in active operation and serves to create jobs.

2.2 Context of a bold plan

Within the context of apartheid South Africa and the rule by a white minority government, railway developments took place under the National Party's auspices after its rise to power in 1948. As a result of favourable economic conditions after the Second World War, its industrial development recovered

24 AF and BS Isaacman, *Dams, Displacement, and the Delusion of Development. Cahora Bassa and its legacies in Mozambique* (Athens: Ohio University Press, 2013), p. 4.
25 Isaacman and Isaacman, *Dams, Displacement, and the Delusion of Development.*
26 Isaacman and Isaacman, *Dams, Displacement, and the Delusion of Development*, p. 9.
27 WM Adams, *Wasting the Rain: Rivers, People and Planning in Africa* (Minneapolis: University of Minnesota Press, 1993).
28 Isaacman and Isaacman, *Dams, Displacement, and the Delusion of Development*, p. 12.

and prospered. With its vast mineral wealth, South Africa stepped off the gold standard and declared a Republic in 1961, thereby ending British colonialism. Trade and economic cooperation with European markets, particularly Western Europa, and the United States and Japan forged ahead. It enabled South Africa to achieve remarkable growth during the 1960s and 1970s.[29] However, these economic ties proved increasingly fragile as political anti-apartheid pressure from international organisations, such as the Organisation for African Unity and the United Nations, became more pertinent. Because of fear of being implicated, most countries gradually abstained from trading with South Africa.

International sanctions and the intensifying military conflict with African liberation movements on the border with South West Africa caused severe constraints. As a bulwark, South Africa sought long-term alliances with pro-Western middle-order powers, including Paraguay, Israel, and Taiwan, to ensure adequate oil supplies.[30] Therefore, measures were devised to uphold and maintain the stability and economic growth within South Africa on a national level. Kobus du Pisani studied the era of separate development and declared that President Balthazar Johannes Vorster's rule served to promote and develop the country economically.[31] Under Vorster's government, the emphasis was placed on infrastructural development. Low inflation and unemployment enabled continuous economic growth. Du Pisani maintained that "one of the greatest achievements of the Vorster government in this phase of economic growth was the large-scale infrastructure".[32] As prime examples of these developments, the Verwoerd Dam (today the Gariep Dam), the aluminium and coal export terminal at Richards Bay, the Koeberg nuclear power station, South African Synthetic Oil Limited refineries and an underwater telephonic cable laid to Europe, attested to this infrastructure which was to be not merely of economic, but also strategic importance.

Sasol also played a leading role in devoting human and financial resources to the production of petrochemical products. In his comprehensive study of Sasol, John Collings mentioned that it was mainly after the so-called "price freeze" in 1977, as a measure by the government to limit financial loss, that Sasol embarked on extending its gas pipeline networks to Olifantsfontein and Springs.[33] Moreover, the later pipelines were extended to enable the transfer of natural gas via the Secunda-Mozambican pipeline, which also

29 K du Pisani, "B.J. Vorster en afsonderlike ontwikkeling". In: F Pretorius (ed.), *Geskiedenis van Suid-Afrika. Van voortye tot vandag* (Cape Town: Tafelberg, 2012), p. 363.
30 Du Pisani, "B.J. Vorster en afsonderlike ontwikkeling", p. 363.
31 Du Pisani, "B.J. Vorster en afsonderlike ontwikkeling", p. 363.
32 Du Pisani, "B.J. Vorster en afsonderlike ontwikkeling", p. 363.
33 J Collings, *Mind over matter. The Sasol Story: A half-century of technological innovation* (Johannesburg: Sasol, 2002), p. 82.

demonstrated the continued innovations after 1994.[34] Vorster succeeded as a political leader in strengthening his support base by convincing both conservative and moderate whites of the value of infrastructural development in particular and as a bulwark against international embargoes.[35]

Outside the borders of South Africa, initiatives were taken by the South African government to invest or to provide a supportive role. In Namibia, railway projects continued to be subsidised by the South African government; despite the ideological divide, Northern Mozambique was granted low interest loan to build the Nacala-Malawi railway to aid economic recovery in the aftermath of a destructive civil war.[36]

The idea for the construction of the Sishen-Saldanha project originated from the Vorster rule and it received continued support from National Party politicians. In a communique from the O'Kiep Copper Company, the enthusiastic belief was expressed that "the Sishen-Saldanha project is a bold and far-sighted plan", that would open up mineral resources and initiate the "exploitation of South Africa's iron ore resources".[37] This testified to the acclaim and support ISCOR had received, even from smaller competing mining companies.

However, it was common that railways initially lagged behind harbours and their development. Harbours attracted more attention from the government as a result of the Middle Eastern conflict since 1967 and the situation concerning the Suez Canal.[38] So-called "Suez-diverted ships" would be bound for the Cape, thereby requiring more harbour services. The Table Bay Harbour extension scheme and modifications at Durban harbour to

34 Collings, *Mind over matter. The Sasol Story: A half-century of technological innovation*, p. 82.

35 Du Pisani, "B.J. Vorster en afsonderlike ontwikkeling", pp. 350 – 351.

36 Pirie, *Aspects of the political-economy of railways in Southern Africa in Environmental Studies*, p. 21.

37 National Archives of South Africa (TAB; Pretoria), TES 10374, A2/18/38 A: Deel 2. Departementele Kommissies, Komitees, Satutêre Rade en ander liggame: (A) Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: AD HOC Komitee vir Sishen-Saldanha. Memorandum to the Commission of Enquiry into the Sishen/ Saldanha Project respectfully submitted by the O'Kiep Copper Company Limited, August 1973.

38 During the 1960s there was a remarkable improvement of railway lines and their importance for connecting towns and harbours for economic purpose in South Africa. However, with the Suez Crisis in 1956 and the ensuing Arab-Israeli conflict in the Middle East, the hegemony of the railways was rapidly replaced by harbours in order to serve the docking of ships bound for the East via the southern tip of Africa, and especially South African ports. With the priority of the South African government shifting to financial support and improvements of harbours, this inevitably caused discontent in the railway sector. This quasi conflict eventually ended after the Yom Kippur War in 1973 and the reopening of the Suez Canal to international shipping. For more, please see; House of Assembly Debates, *Hansard*, Second Session – Fourth Parliament, Republic of South Africa, 29 January to 16 June 1971, column 2362.

provide additional facilities were already underway, and satisfactory progress had been made by 1971.[39]

According to the debates of the South African Parliament in 1971 about the Railways and Harbours Appropriation Bill, parliamentarian Stephanus Jacobus Marais Steyn stated that the budget allocated to the railways was not excessive.[40] Wyatt Vause Raw also commented that the amount allotted for railways was not large.[41] The then Minister of Transport, Ben Schoeman, pointed to the problems arising from the petroleum traffic and the slowdown of imports and the weakening export markets in major industrial countries.[42] Schoeman stressed that "various plans are afoot for the expansion of base metal and mineral exports, but some are dependent upon the provision of additional rail facilities".[43] He raised his concern that, despite efficient railway lines such as the Vryheid-Empangeni and Richards Bay railway line to Ermelo for the export of coal through Richards Bay, "many railway lines and facilities are, however, reaching maximum physical capacity".[44] Schoeman revealed that railways were deprived because they only received a budget benefit and revenue derived from exports, amounting to a mere 1.5 per cent during the April-November 1970 period.[45]

Critical comments against the infrastructural development of Sishen and Saldanha were passed on political and environmental grounds. In the study by David Hallowes, he elaborated on the haste and disregard of these infrastructural projects and their pollution of the immediate countryside simply in order to achieve political-economic status, to the detriment of the environment.[46] Hallowes also objected politically by stating, "its construction was a profoundly masculine, as well as racist enterprise".[47] Liberals and other opposition politicians, particularly from the United Party, would henceforth directly oppose and question the proposed infrastructural developments and its possible unforeseen consequences on the environment.

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39 House of Assembly Debates , *Hansard*, Second Session – Fourth Parliament, Republic of South Africa, 29 January to 16 June 1971, column 2362.

40 House of Assembly Debates , *Hansard*, Second Session – Fourth Parliament, Republic of South Africa, 29 January to 16 June 1971, column 2362.

41 House of Assembly Debates, *Hansard*, Second Session – Fourth Parliament, Republic of South Africa, 29 January to 16 June 1971, column 2362.

42 House of Assembly Debates , *Hansard,* Second Session – Fourth Parliament, Republic of South Africa, 29 January to 16 June 1971, column 2362.

43 House of Assembly Debates, *Hansard*, 10 March 1971*,* column 2362.

44 House of Assembly Debates, *Hansard,* 10 March 1971, column 2363.

45 House of Assembly Debates, *Hansard*, 10 March 1971, column 2362.

46 D Hallowes, *Toxic Futures: South Africa in the crisis of energy, environment and capital* (Scottsville: University of KwaZulu-Natal Press, 2011), pp. 50-51.

47 Hallowes, *Toxic Futures: South Africa in the crisis of energy, environment and capital*, pp. 50-51.

2.3 ISCOR's initiative

Functioning as a state-backed corporation, ISCOR was set on obtaining foreign income by means of initiating and establishing mining and heavy industry and, of course, appropriate transportation. Since the first opening of the ISCOR steelworks in Pretoria in 1934, the corporation has developed into an industrial giant. Vast metallurgical plants were constructed at Vanderbijlpark and Newcastle that concentrated mainly on the mass production of steel. With South Africa in possession of huge iron ore deposits, the corporation managed to expand its capacity from 2.5 million tons of ore mined in the 1960s to an increased 4 million tons of raw steel by 1974.[48] As a corporation that stood the test of time during the Great Depression of the early thirties and serving as a creator of employment and industrial opportunities in the mining of iron ore, it gained a respectable status. The discovery of the richest high-grade iron ore deposits at Sishen, originally located on a farm in the north-western Cape established that a 1 340 million ton ore body, with reserves of 4 000 million tons, was lying underneath the sparsely populated Sishen-Postmasburg areas. It was reported that South Africa was third in the world, after Brazil and Australia, in terms of high-quality iron ore, though having billions of tons of lower-grade ore.[49] Henceforth, due to ISCOR's reputation and politico-financial support from the government, the corporation attempted to explore and exploit these iron ore deposits. It was also planned to later tap into the mining of additional ore deposits from Sishen northwards to Kathu.

Without any adequate railway or transportation link to the coast, it was deemed pointless to develop Sishen and secondary mining industries directly dependent on mining activities. After several investigations and feasibility studies by ISCOR, it was later decided that Saldanha Bay would be converted into an ore export harbour for the principal reason of its geographical size, being larger than Cape Town, Port Elizabeth and Durban harbours combined.[50] It was also envisaged that semi-processed steel in the form of slab – industry for processing or smelting ore be erected at Saldanha. A railway line with a distance of 861 km was considered the only solution for transporting the immense iron ore wagons from Sishen to Saldanha. It was to be an enormous project, consisting of three main developmental constructions, most notably

48 M Weston and D White, *ISCOR=YSKOR* (Johannesburg: Thomson, 1975), p. 49.

49 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Die beskikbare ysterertsreserwes in Suid-Afrika en in die besonder YSKOR se reserwes, p. 2.

50 Weston and White, *ISCOR=YSKOR*, pp. 46-47.

the open mine at Sishen, the railway line and Saldanha Bay harbour facilities to accommodate the export of iron ore.[51]

On a socio-economic level, it was the initiative of ISCOR to develop Saldanha as primarily a settlement for Coloured labour. ISCOR members shared different opinions as to whether this was achievable and if it should remain within the calculations and trends of White-Coloured-Black wage scales.[52] Finally, its long-term planning was that Saldanha Bay be developed as a metropolitan area for mainly the Coloured population group, with auxiliary services and metallurgical industries providing "unheard of employment opportunities".[53] At Sishen, the mining labour force was to consist of and attract mainly black Africans from Bophuthatswana's homeland, serving under the supervision of white instructors.

The project was an initiative that ISCOR had taken with great risk, as it would rely heavily on foreign investment partners and state-backed funding. Nevertheless, by 1973 there was no clear-cut decision amongst government authorities over the precise location of the ore export harbour, but persistence from the side of ISCOR continued unstoppably. A further cause behind the sheer hastiness to commence with construction appeared more psychological than economic, resulting from ISCOR's obsession with raising its standards to the level of Australia and Brazil in terms of its export facilities in the southern hemisphere. In a report on the location of a semi's industry, a highly mechanised industrial enterprise, it was urged that whichever country would be first in the most negotiated contracts, would have a competitive advantage in the markets.[54]

Notwithstanding ISCOR operating as a private, semi-state corporation with seemingly unlimited powers, it was considered necessary to regulate or at least observe and advise on its workings. On 20 February 1973, *Die Burger* officially announced that an overarching committee that would coordinate the orderly planning and development at Sishen and Saldanha had been established.[55] Under Petrus Johannes Visser Pretorius's directorship, the

51 Weston and White, *ISCOR=YSKOR*, pp. 46-47.

52 TAB, TES 10374, A2/18/38 A: Deel 1. Departementele Kommissies, Komitees, Satutêre Rade en ander liggame: (A) Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: AD HOC Komitee vir Sishen-Saldanha. Verslag aan sy Edele die Minister van Beplanning en die Omgewing oor die vestigingsplek van die beoogde aanleg vir halfverwerkte ysterprodukte, p. 2.

53 Weston and White, *ISCOR=YSKOR*, p. 49.

54 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Vertoë deur Yskor en Koördinerende Komitee se Verslag i.v.m. die ligging van 'n semi's fabriek: Tydsberekening, p. 35.

55 TAB, TES 10374, A2/18/38 A: Deel 1. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: AD HOC Komitee vir Sishen-Saldanha. *Die*

committee would compile its reports and respond to the Minister of Planning and Development, Jan Jurie Loots. As an instruction, Vorster stated that any representations had to be made to the Secretary of Planning and Environment in Pretoria for recommendations to the planning of the project.[56]

2.4 Railways in comparison

In the advent of the planning phase, an investigative study was undertaken to determine the basic feasibility of the proposed railway line between Sishen and Saldanha. According to the report of the Sishen-Saldanha Project Information Conference of 5-6 July 1973, the aim was that the railway line be "profitable" and allow for "growth".[57] It was confirmed that the project had been objectively analysed and not only from a technical, but also from an operational and economical viewpoint. In discussing the outline of the project, aspects such as the track gradient for rolling stock and the choice of the type of ore wagons (the open-box conventional gondola was decided on), a better conception of its preparation planning was achieved. The conference report stated that study tours by officials from ISCOR, the South African Railways and consulting engineers who had investigated the findings of the West German Railway study group on axle load and the European Economic Community study group of Heavy Mine Railways were undertaken.[58]

In gaining a broader understanding of the long-distance railway lines designated solely for the purpose of hauling massive tonnages, cognisance was taken of similar railways in a global context. Long-distance railways were by no means a new phenomenon, but their operational distances and ownership varied considerably and were tabled comparatively. From a list of ten countries, it became apparent that it was particularly the railways in developing countries, such as Angola with its Confraria Mineira de Cobita line of 609 km owned by the Portuguese government, Mauritania's Miferma of 650 km and India's 760 km line of the National Development Corporation, that were state-owned or semi-state affiliates.[59]

Burger, 20 Februarie 1973, 'Beplanningsraad vir Saldanha'.

56 TAB, TES 10374, A2/18/38 A: Deel 1. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: AD HOC Komitee vir Sishen-Saldanha. *Die Burger*, 20 Februarie 1973, 'Beplanningsraad vir Saldanha'.

57 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Sishen-Saldanha Project Information Conference: 5 and 6 July 1973, p. 3.

58 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Sishen-Saldanha Project Information Conference: 5 and 6 July 1973, p. 3.

59 TAB, TES 10374, A2/18/38 A: Deel 1. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae B. Spoorlyne vir die vervoer van ystererts,

In comparison, the developed countries' railway lines, such as the Australia line of 424 km of the Mt. Newman Mining Company and Canada's 568 km line operated by the Iron Ore Company of Canada, were all under private ownership.[60] In light of the above, the projected distance for the Sishen-Saldanha railway line of 861 km was to surpass – a record-breaking undertaking of extraordinary proportions – all of its foreign counterparts.

For ISCOR's specialisation in mining development and railway-specific construction, the idea of the South African Railways (SAR) for taking up the initiative as mainly a freight and passenger transport server was rejected. A take-over by the SAR was not considered feasible by the ISCOR Council for several reasons, as it would mean an alienation of its assets that was regarded as "absolutely unjustifiable".[61] Furthermore, if under the SAR ownership, it argued, it would probably not be able to guarantee its foreign associates or clients, of which the Austrian company Voëst had already expressed doubts, with affordable iron ore prices over the long-term.[62] In other words, ISCOR demanded full operational ownership of the railway line and to manage its contracts confidentially, but with indirect state observance.

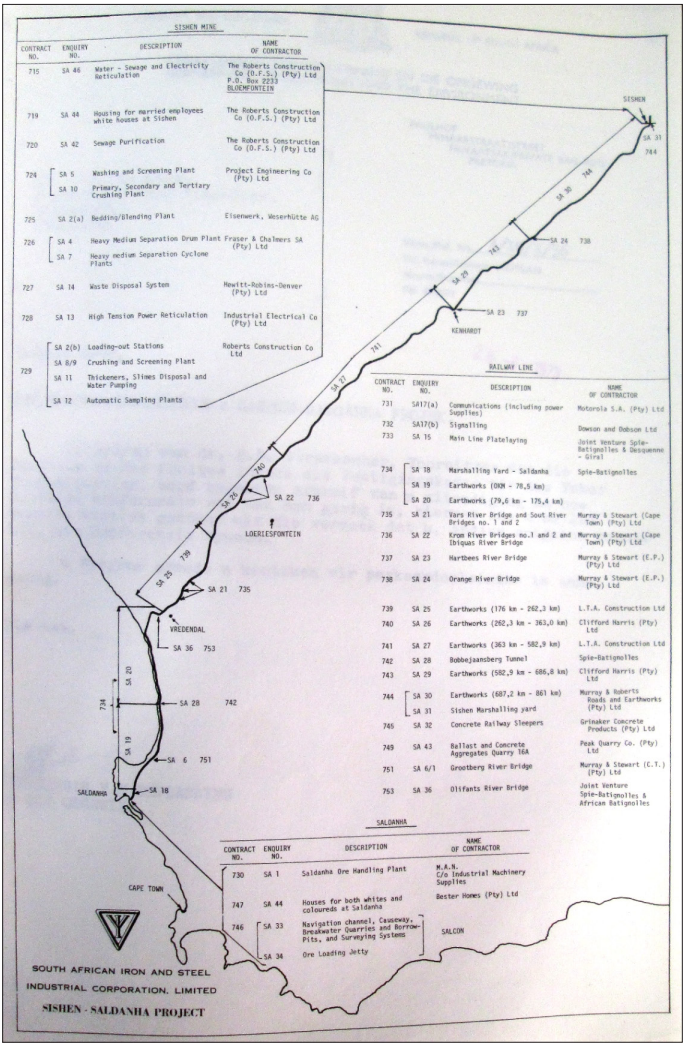
1971.

60 TAB, TES 10374, A2/18/38 A: Deel 1. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae B. Spoorlyne vir die vervoer van ystererts, 1971.

61 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Suid-Afrikaanse Yster en Staal Industriële Korporasie, Beperk, 18 Januarie 1973. Die koste, fondsbehoeftes, finansiering en ekonomiese doenlikheid van die Sishen-Saldanha-Projek, p. 12.

62 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Suid-Afrikaanse Yster en Staal Industriële Korporasie, Beperk, 18 Januarie 1973. Die koste, fondsbehoeftes, finansiering en ekonomiese doenlikheid van die Sishen-Saldanha-Projek, p. 12.

Map: ISCOR map indicating the Sishen-Saldanha railway route



Source: TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A.

According to an analysis of the geographical terrain, the railway's route layout over a relatively open surface made it seem all too uncomplicated for builders to achieve. In 1973 the Nationalist Party politician, Pieter Gabriel Marais, even in the parliament he stated that, "it is really an easy railway line".[63] In the ISCOR document file of Dr Johannes Henricus de Loor, the preliminary route details indicated that the railway was to be built over a "favourable topography".[64] The only possible hindrance appeared to be the escarpment closer to the western seaboard. The railway was to run in a linear line in a south-westerly direction via the Krom River Valley, crossing the Olifants River towards the West Coast. As obstructions, the mountains at Eland's Bay and dunes existed, but overall the route traversed an even terrain descending towards Saldanha. The document information indicated that practical calculations and surveying of the area were conducted using 1 to 50 000 maps with contours made available by the trigonometrical office[65]. For initial photographic purposes, helicopter flights were undertaken. The Colcamp plotter crossing points could be determined, and train running times by means of computer simulation be calculated.[66] Adjustments to the route plan could then be made in terms of the gradient and addition of so-called "loops" enabling bypassing trains to pass to and from Saldanha.[67]

3. CONTROVERSY OF A RAILWAY

3.2 The Parliamentary debate over the Sishen-Saldanha Railway Construction Bill

While the Sishen-Saldanha railway project was perceived as grandiose, it was to be in political and parliamentary quarters that the fiercest confrontational discussions would occur. From the onset, it was evident that the ruling party

63 House of Assembly Debates, *Hansard*, 29 March 1973, column 3670.

64 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Sishen-Saldanha-Projek dekkende memorandum by YSKOR se antwoorde op brief van 25 Junie 1973 van voorsiter van Komitee. Dokument A: Die spoorlyn Sishen-Saldanha.

65 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Dokument A: Die spoorlyn Sishen-Saldanha, p. 3.

66 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Sishen-Saldanha Project Information Conference: 5 and 6 July 1973, p. 3.

67 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Dokument A: Die spoorlyn Sishen-Saldanha, p. 3.

members of the National Party majority were favouring, or for the most part, leaning towards supporting the planned prospects and initiatives by ISCOR. As a platform for political discussion, the opposition parties, of which the United Party would lead the main arguments, the parliament became the primary place where issues of common interest or problematic concerns could be raised. Essentially, the debate commenced on 29 March 1973 when the then Minister of Economic Affairs, Louwrens Muller, addressed the parliament stating that the government had decided to accept a proposed Bill that would allow ISCOR to proceed with its project.[68] Muller confirmed that the Bill, formally known as the Sishen-Saldanha Bay Railway Construction Bill, "does not require much elucidation. It has been drawn up strictly in accordance with the directions of the Cabinet decision in question. It is based mainly on the applicable provisions in existing South African Railway legislation".[69]

The main points of the Bill immediately spoke to the characteristic authoritative power or leverage power of ISCOR. The Bill's principal points were threefold. It was published in the official *Government Gazette* during the following month in April 1973. The first principle, namely that ISCOR was being authorised to build a railway line for the conveyance of its export ore and building materials.[70] This, in fact, implied that all rights were reserved to ISCOR. Secondly, that ISCOR be authorised to expropriate land for the railway line and a strip of land not exceeding 40 meters wide. Proper negotiation and cooperation with affected land or farm owners, as the railway would also run through state-owned land, had to take place in advance.[71] In so doing, both ISCOR and the state would be bound by the Act. Notifications were published in newspapers that would communicate and elaborate on the proposed expropriation. Thirdly, the Bill highlighted that ISCOR should constantly negotiate and refrain from infringing on the South African Railways' rights.[72] For the most part, these negotiations were described as "proceeding very smoothly".[73] Any infringement of the Bill's stipulated principles would be punishable with charges of six month's imprisonment or a fine of no more

68 House of Assembly Debates, *Hansard,* 29 March 1973, columns 3659-3660.
69 House of Assembly Debates, *Hansard*, 29 March 1973, columns 3659-3660.
70 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). *Government Gazette* 94 (3846), 5 April 1973 , p. 17.
71 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). *Government Gazette* 94 (3846), 5 April 1973 , p. 17.
72 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). *Government Gazette* 94 (3846), 5 April 1973, p. 17.
73 House of Assembly Debates, *Hansard*, 29 March 1973, columns 3659-3660.

than R500 for anybody trespassing. However, it also meant that the state was inevitably bound thereby.[74]

After the proposed Bill's points were read, Muller stated his motivations, or incentives, for allowing ISCOR to proceed unhindered. His argument was strengthened by his citation of the Iron and Steel Industry Act, 1928, which maintained that ISCOR had already, during the late twenties, gained the power to construct railways other than conveying public traffic and by means of a Parliamentary declaration in the Expropriation Act of 1951.[75] Muller indicated that "it has been found necessary to expand ISCOR's existing powers", and that by "nature of the case and virtue of past experiences, it should be permitted to authorise ISCOR".[76] The Minister continued in earnest with his motivation that attested to the urgency to press for a swift recognition and acceptance of the Bill. Muller stated that "members will understand that since ISCOR has to deal with private contractors who are going to undertake the construction of the line at agreed tender prices and within fixed-time limits, the risk of delay as a result of possible time-consuming negotiations with landowners, coupled with resulting disruptions and major financial losses, cannot be taken".[77]

The statement was made that ISCOR officials had already visited every landowner concerning the proposed expropriation and that there was no blatant objection. From interpreting Muller's parliamentary speech, it appeared obvious that the Bill had to be accepted at all costs because its principles were "self-explanatory". He even apologised that it was "not justifiable to take up the time of the House unnecessarily by elaborating on them".[78]

The debate was then sparked when the opposition member from the United Party, Solomon Emdin, protested not against the construction of the railway as such, but merely the manner in which the Bill was presented. Emdin argued that "we did not have the time to study this Bill" entirely and that it had been introduced within the Budget week.[79] He harked back to the National Party saying that, "they may believe that their Bill is perfect, but the opposition still must carefully scrutinise every Bill that comes before the House".[80] A rowdy noise and applause for Emdin demonstrated their concern. An abrupt dispute then ensued between Jacobus Ernst Potgieter

74 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). *Government Gazette* 94 (3846), 5 April 1973, p. 17.
75 House of Assembly Debates, *Hansard*, 29 March 1973, column 3659.
76 House of Assembly Debates, *Hansard*, 29 March 1973, column 3659.
77 House of Assembly Debates, *Hansard*, columns 3659-3660.
78 House of Assembly Debates, *Hansard*, column 3660.
79 House of Assembly Debates, *Hansard*, column 3662.
80 House of Assembly Debates, *Hansard*, column 3662.

and Warwick Trollip Webber, who rudely confronted him over the time issue to study the Bill.[81] Thereafter the speaker requested Emdin to continue with his speech in which he made the statement that, "we all know that ISCOR is an autonomous body… but when the ISCOR Bill was passed originally, it was never intended that ISCOR should build a railway line of this magnitude". Emdin also expressed his dismay that despite a brief overview of the project, "we know nothing about this line whatsoever".[82]

Emdin's protest then intensified as he objected in a rather scolding manner that parliament is "not a rubber-stamp for ISCOR. These autonomous authorities are taking too much power onto themselves, and it is time Parliament exerts its authority".[83] The debate continued and extrapolated on the railway line's feasibility as a single-track line owned exclusively by ISCOR. In support of Emdin, the United Party members, Walter Graham Kingwill, and an anonymous member uttered, "nobody can use it".[84] Emdin raised his concern that the project was "going to have no impact whatsoever upon the industrial or economic development of the areas abutting on either side of that railway line".[85]

The National Party members then presented their counter-arguments, again defending the Bill outright and its significance in implementing the railway project. Marais then answered Emdin that his "arguments had no substance whatsoever".[86] Marais projected his speech in an idealist, nationalist style, for he had "exhilaration in my heart when I looked at the Sishen-Saldanha Bay Railway Construction Bill".[87] For Marais, it was the catalyst that had "given life to the project, and all the hard work, congresses and preparation to press for the project", and said that on a personal level, he was proud to be known by the nicknames of "Piet Saldanha", "Piet West Coast" and "Piet Railway Line".[88] On an inspirational note, Marais attempted to persuade Parliament of the possibility of building the railway line by citing the words of the renowned South African industrialist, Dr Anton Rupert, "He who does not believe in miracles, is no realist".[89]

Marais continued to express his confidence in ISCOR by pointing to their determination, imagination and creative power. He praised them for their "daring perseverance" in which it furthered its projects. He threw back at the

81 House of Assembly Debates, *Hansard*, column 3663.
82 House of Assembly Debates, *Hansard*, column 3663.
83 House of Assembly Debates, *Hansard*, column 3663.
84 House of Assembly Debates, *Hansard*, column 3663.
85 House of Assembly Debates, Hansard, column 3663.
86 House of Assembly Debates, *Hansard*, column 3666.
87 House of Assembly Debates, Hansard, column 3666.
88 House of Assembly Debates, *Hansard*, column 3666.
89 House of Assembly Debates, *Hansard*, column 3666.

opposition that "ISCOR had its origins at a time when the United Party was still fighting against it".[90]

Marais also pointed to the project's developmental advantages for Coloured people as far as socio-economic implications were concerned. He elaborated on his stance that whereas "the Boland had no gold, we do not have diamonds, nor do we have coal".[91] Hence, he argued that it should be imperative to create employment opportunities artificially to maintain good White and Brown relations. Marais stated that it was to be a linchpin and "in this the real value of the project was hidden (sic)".[92]

The political intolerance that emanated from the debate was further indicated by the speech of National Party member Johannes Marthinus Henning. He described the United Party's attitude as "blowing hot and cold" and that the opposition was not considering the privacy of ISCOR as a corporation.[93] He advised the Party to refrain from allowing ISCOR's matters, contracts and projects to be publically disclosed. On the issue of exports, Henning lashed out against the opposition by persuading them that ISCOR's attempts were a means to achieve more exports. He said sarcastically, "those people have a lot of buts, yes, - but this and yes, but that; what will it look like if it reaches the other side?"[94] Henning requested that they give this Bill their full support – but they opposed everything tackled by ISCOR, and constantly placed "a spoke in their wheel".[95] After considering Henning's and Marais's counterpoints, Muller gave his approval for the Bill. The parliamentary debate was to continue and be characterised by its seesaw dispute between nationalist and liberal politicians.

3.2 Considering the environmental impact

A hitherto neglected issue that suddenly came to the fore during the parliamentary session was the speculation about the impact of the construction of the Sishen-Saldanha railway on the environment. ISCOR gave its assurance that it had conducted intensive preliminary research through its ISCOR industrial hygiene section, together with safety campaigns and committees meeting on a monthly basis to "ensure harmonious union between industry and the natural environment", whilst taking a "leading role in the safety in industry movement in South Africa".[96] Despite their claim, scant

90 House of Assembly Debates, *Hansard*, column 3667.
91 House of Assembly Debates, *Hansard,* column 3670.
92 House of Assembly Debates, *Hansard,* column 3670.
93 House of Assembly Debates, *Hansard,* column 3676-3677.
94 House of Assembly Debates, *Hansard,* column 3676-3677.
95 House of Assembly Debates, *Hansard,* column 3676-3677.
96 Weston and White, *ISCOR=YSKOR*, p. 193.

mention was made in Parliament about the possible degradation and pollution of the areas immediately surrounding the railway line between Sishen and Saldanha Bay.

In considering the environment, it appeared from the parliamentary debate that it was not only members of the opposition but also the problematic issues of the short and long-term effects of constructing the railway from National Party members and the Minister himself that attracted attention. When Marais addressed Parliament he raised his concern about the railway line cutting through what he called "the beautiful, picturesque little town on the West Coast called Elands' Bay … I think this town will be very detrimentally affected by this particular railway line".[97] With its rich lobster and natural environment, Marais mentioned with displeasure that "it would be a pity if the proposed railway line is to run through the Bobbejaansberg [Baboon Point] which will cut the town exactly in two (sic)".[98] He suggested an adjustment to the railway line route, despite the fact that ISCOR's plans for construction were already fixed in stone, so to speak, following its foreign contracts and investigations.

The issue of the exportation of iron ore as principal objective of the railway project was then considered. In his speech, the United Party member, Hugh Mountfort Timoney, argued against the depletion of South Africa's raw materials by simply exporting them without proper refinement for higher returns. Timoney made the statement that, "we should not export all our raw materials. I think this is wrong".[99] Timoney raised a valid point in motivating for the preservation of South Africa's mineral resources, not to give in to the scenario where our exports to Japan, as one of the leading export destinations, would mean that we have to in turn purchase the finished products back from them.[100] Timoney criticised the industrialists, saying that "we should not only look at obtaining foreign currency" and suggested that we should establish our vast steel industry. Thereby, South Africa would be rightfully known as the "workshop of Africa".[101]

The mineral resources and agriculture and farmland were to be affected by the provisions and expropriation as stipulated in the Bill. Again, Timoney expressed his concern for the railway line passing through rich, arable farmland and that he did not believe that affected farmers had been consulted appropriately. In a following parliamentary sitting on 30 March 1973, Jacobus Wynand Louw Horn specifically mentioned the effects of building the railway

97 House of Assembly Debates, *Hansard*, column 3669.
98 House of Assembly Debates, *Hansard*, column 3669.
99 House of Assembly Debates, *Hansard,* column 3681.
100 House of Assembly Debates, *Hansard*, column 3682.
101 House of Assembly Debates, *Hansard*, column 3682.

would have on the environment. Horn explained this by giving an example of the railway line between Prieska and Copperton that saw a severe land degradation adjacent to the railway line. Dissatisfaction amongst farmers sprouted from their need to implement costly soil conservation practices. He mentioned that tremendous damage was done to farmers' soil. If a strip of land of approximately 150 yards wide was cut off, that land became practically worthless and unusable for agriculture.[102] For farmers, this expropriation would mean that their farmland, in the proximity of the railway line, would become uneconomical. Horn expressed his wish that affected farmers would be compensated accordingly.

The then Minister of Economic Affairs then responded by saying that, "ISCOR will not have the right to use that land without having obtained the necessary rights from the owner concerned".[103] The Minister steadfastly maintained that "ISCOR gave me the assurance in my negotiations with them that they want to cause the least possible inconvenience to farmers in the vicinity over whose land the line is going to pass".[104]

3.3 Single or multi-purpose?

Discussed in conjunction with the environmental issue during the parliamentary debate, the practical utilisation of the railway line was addressed. As the issue whether the railway would be a single-purpose line exclusively for ISCOR's use, it inevitably sparked lengthy and protracted debate in parliament. Following on Thomas Gray Hughes's questioning on the railway Bill's clause 14 of the Railways and Harbours Council and Management Act, the Minister responded by reiterating the necessity for ISCOR to be the sole owner of the railway line as the "scheme is based on efficiency and bulk conveyance".[105] The Minister optimistically stated that "to achieve that high efficiency – it is by far the best that this should be a single-purpose railway line".[106]

By ensuring optimum synchronisation of the entire railway system, preference had to be given to allow the fully-laden ore trains to be transported without stopping, except for the midway interchange of drivers. The lighter empty wagons would then always return to Sishen earlier for loading, thereby increasing the rate of productivity. Thus, the advantages of a single-purpose line were made apparent by the government.

102 House of Assembly Debates , *Hansard,* 30 March 1973, column 3750
103 House of Assembly Debates, *Hansard*, column 3751.
104 House of Assembly Debates, *Hansard*, column 3751.
105 House of Assembly Debates, *Hansard*, 29 March 1973, column 3688.
106 House of Assembly Debates, *Hansard*, 29 March 1973, column 3688.

From inception, a multi-purpose line was favoured by the opposition as it was to be in the national interest. Emdin pointed to the unfairness when he expressed his concern that "the line of railway shall not be used for the conveyance of public traffic", thus "not for anything except ore".[107] The government took note of this with apprehension, as it could defeat the very purpose of ISCOR's objectives and their practicalities by allowing other companies or public enterprises to make use of the railway line. It was viewed with reluctance as it would emphatically disrupt or overburden the rolling stock of iron ore to Saldanha. Even attempts by mining companies wishing to join in by attempting to negotiate to add a connectivity railway line were disapproved. In August 1973, the O'Kiep Copper Company approached ISCOR with the desire to propose a connecting railway line. Their standpoint was that without the availability of such a line, the entire copper district in the Northern Cape Province would become completely isolated. Nevertheless, ISCOR declined their proposal as it would be uneconomical to build an additional line for only small quantities of copper, constituting only two train loads per year.[108] For the most part of the debate, the idea of a multi-purpose railway line was brushed aside.

The Minister then suggested that other forms of fundamental stimuli should be found, such as the aforementioned copper, as well as asbestos mines in a range of 80 km from the railway line to contribute to a regional development. He stated almost in direct contradiction to his initial praise and acceptance of the Sishen-Saldanha Railway Construction Bill that in reality, "a railway line in itself does not bring any development".[109]

3.4 A battle of ports and projects

Discussions were held simultaneously with the parliamentary debate for months prior to 1973 concerning the selection of a port for export purposes that would be most suitable for accommodating the railway. Two main projects vied with each other for supremacy; ISCOR's Sishen-Saldanha and the St. Croix scheme located northeast of Port Elizabeth and west of Algoa Bay. According to the official Cabinet memorandum of February 1973 on large-scale exports of iron ore, a comparison was made between the two projects.[110]

107 House of Assembly Debates, *Hansard*, column 3664.

108 Weston and White, *ISCOR=YSKOR;* p. 47; TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Memorandum to the Commission of Enquiry into the Sishen/Saldanha Project respectfully submitted by the O'Kiep Copper Company Limited. August 1973.

109 House of Assembly Debates, *Hansard*, 29 March 1973, column 3689.

110 TAB, TES 10374, A2/18/38 A: Deel 1. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Kabinetsmemorandum: Grootskaalse uitvoer van

Financially speaking, it was determined that Saldanha would cost R460 million against St. Croix's R422 million, and with the notion that a railway line could be built to Algoa Bay at a fraction of the cost to Saldanha.[111] For the most part, the St. Croix scheme would make use of private capital, except for its railway extensions.On the other hand, according to ISCOR, Saldanha was to rely heavily on the state to cover railway expenses. There appeared no clear-cut decision on the projects, and although Saldanha seemed the favourite, the memorandum stated that there was no unanimity on the issue.[112] There was even the dire motivation that it was doubtful if ISCOR would be able to complete the project within three years, with the recommendation that the project be postponed.

In the long-drawn-out struggle between the ports, factors such as environmental concern and geographic location were taken into consideration. With regard to Saldanha Bay, the Department of Health conducted intense studies of air pollution in particular. As it is a largely windless area, the matter involving the build-up of smog along the West Coast had raised much concern. Furthermore, the iron ore dust and low rainfall that could contribute to severe dust storms were considered. Nonetheless, Dr Eric Clifford Halliday, Head of Air Pollution Research Group, warned about the formation of fog and its mingling with potentially toxic fumes or fallouts as a result of the intended semi's plant at Saldanha.[113] Halliday expressed his discontent that his gathered data were all guesstimates due to the limited time to fully assess the future environmental impact at Saldanha.[114] Apart from these uncertainties, the larger area of Saldanha Bay for handling vast cargo vessels, and serving as a new growth point north of Cape Town, appeared geographically advantageous. In addition, the decentralisation of the economy and establishment of a Coloured metropolitan area in due course worked in its favour.

In contrast to Saldanha, St. Croix was likewise initially also favoured. According to a memorandum of the Cape Midlands Development Association

ystererts, 5 Februarie 1973.

111 TAB, TES 10374, A2/18/38 A: Deel 1. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Kabinetsmemorandum: Grootskaalse uitvoer van ystererts, 5 Februarie 1973.

112 TAB, TES 10374, A2/18/38 A: Deel 1. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Kabinetsmemorandum: Grootskaalse uitvoer van ystererts, 5 Februarie 1973.

113 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek. Departement van Gesondheid. Kommentaar oor lugbesoedelingsaspekte.

114 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek. Departement van Gesondheid. Kommentaar oor lugbesoedelingsaspekte.

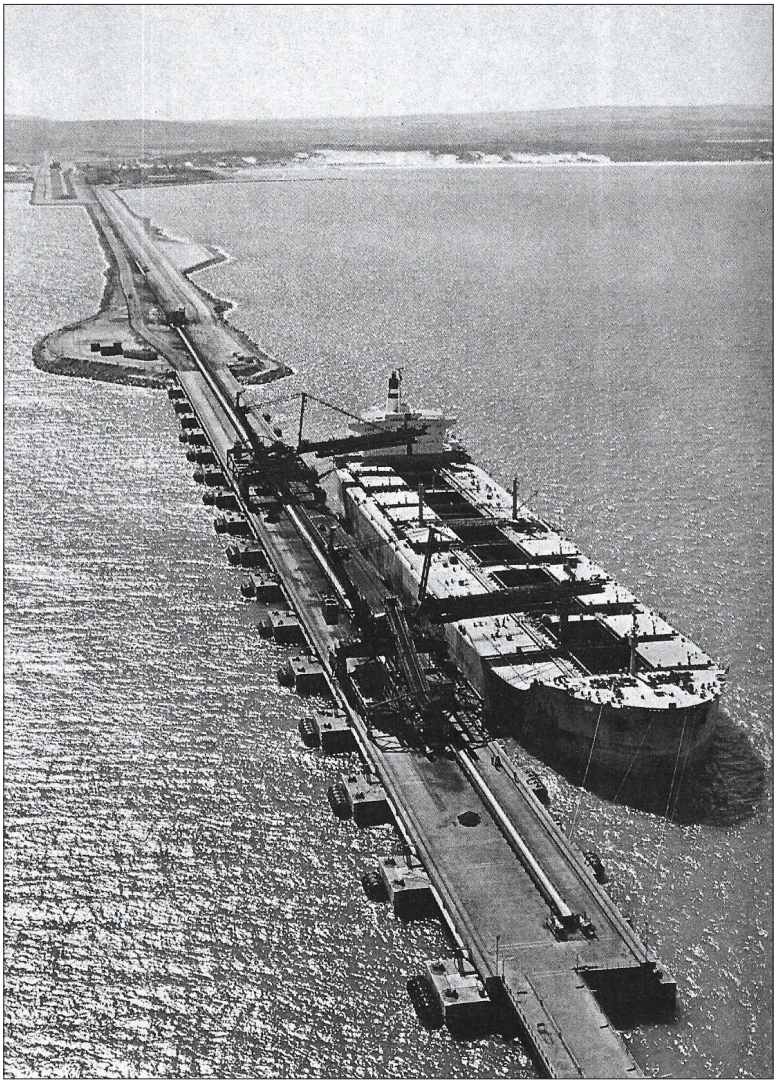
of March 1972, it was confirmed that with all its basic studies of wind and wave, the Railway Administration was prepared to accept the final design and that the St. Croix scheme would be completed in two and a half years.[115] Although Saldanha was regarded as a great coastal port, it had no immediate berthing facilities for shipping vessels. In July 1972, the Minister of Finance pointed out the cost difference for berthing between Saldanha, being between R600 and R650 million, against a disproportionally lower R47 million for St. Croix.[116] As indicated earlier, the reasons are unclear why the above-mentioned cost for St. Croix had increased to the amount appearing in the Cabinet memorandum.

However, the primary motivation for building St. Croix was for geo-economic reasons, namely for the diversification of industry in a stagnant Port Elizabeth/Uitenhage area and because its motor and textile industries were already established. The area needed to receive some form of new impetus for its industrial development. Henceforth, the scheme would serve as a catalyst that would eventually strengthen the whole economy of the Eastern Cape Province. Both the South African Chamber of Industry and the Cape Midlands Association were in its favour, but it was clear that Saldanha had already become an "act of faith" for the government.

115 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae).Cape Midlands Development Association. Memorandum: Export of iron ore and steel products through Algoa Bay.

116 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae).Cape Midlands Development Association. Memorandum: Export of iron ore and steel products through Algoa Bay.

Image 1: The far end of the Saldanha Bay terminal



Source: *ISCOR News*, May 1978.

Thus the so-called "Battle of the Ports", had become a dragging debate over the choice of a port, which ultimately proved an unnecessary and costly exercise.[117] The memorandum delivered strong critique against the Sishen-Saldanha project for it being "hastily conceived…, construction on a crash basis, involving a tremendous drain on human and material resources", and suggested its reconsideration.[118] However, as time elapsed, the St. Croix scheme fell into disfavour. In June 1973, the Midland Chamber of Industries reported on the proposed iron ore loading berth as a supplementary operation to Saldanha Bay and that facilities at Port Elizabeth were "being used to virtually full capacity".[119] As a result of the structural limitations of the harbour in handling larger vessels, its harbour implements obsolete. The density of the industries detrimental to the environment, it was stated that "St. Croix represented a serious environmental problem, for the ore… which is badly polluted by ore dust, which may necessitate the closing of the installation".[120]

In August 1973 the option for St. Croix was dismissed. As the then Minister of Economic Affairs, Muller confirmed that "there is absolutely no hope for St. Croix". He stated that it would be "far wiser to accommodate private industry at Saldanha" and advised that "we should try to accommodate it in the Saldanha scheme if Port Elizabeth is ultimately used to capacity".[121] Hence, when the battle of the ports was concluded, Muller recommended that, St. Croix privateers should take the opportunity to negotiate or work together for incorporation in the Sishen-Saldanha railway project.

In reality, that appeared to be a smokescreen, as the project was to be driven mainly by ISCOR as a state-supported venture. This was demonstrated by the promulgation of the Sishen-Saldanha Railway Construction Bill in April 1973, in which it was stipulated that it would be a single-purpose railway only. It was emphasised that "the railway will belong to ISCOR and will be financed

117 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Cape Midlands Development Association. Memorandum: Export of iron ore and steel products through Algoa Bay, p. 26.

118 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Cape Midlands Development Association. Memorandum: Export of iron ore and steel products through Algoa Bay, p. 26.

119 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Midland Chamber of Industries, Proposed off-shore ore loading berth at St. Croix, 29 June 1973, p. 1.

120 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Midland Chamber of Industries, Proposed off-shore ore loading berth at St. Croix, 29 June 1973, p. 5.

121 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). *Financial Mail*, 10 August 1973, p. 535.

and managed by ISCOR, without adjoining to the South African Railways".[122] In Parliament, Marais mentioned with the exaltation that "the corner-stone of a great new industry is being laid".[123]

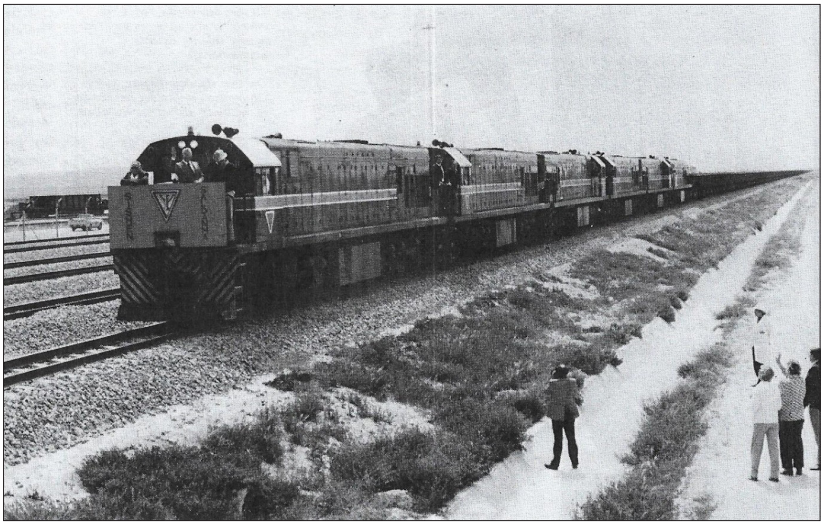
4. THE ENORMITY OF A RAILWAY CONSTRUCTION

One month after the project's approval, the construction that was to change the face of the West Coast commenced in May 1973. It was a giant undertaking involving more than 50 individual contracts for the building of the Sishen mine, the construction of the railway line and harbour facility developments at Saldanha Bay for stockpiling, and the building of an iron-ore terminal and jetty stretching 2.3 km into the sea. ISCOR's foreign contractors were largely responsible for providing the ground-laying and building works. Harbour works were carried out by the Dutch consortium, Salcon, while chrome-manganese railway rails were to be imported from West Germany. The rails were to be welded in lengths of 300 metres at Saldanha Bay and railed to the plate-laying site. The French companies, Spie-Batignolles and Desquenne & Giral, joined forces and agreed to lay the railway line at a rate of 2.5 km per day. Upon completion of the railway, it would consist of 1.6 million concrete sleepers produced at a factory in Saldanha Bay.[124]

The railway dimensions were to be a standard gauge of the South African railway network, to allow for adaptation to local conditions. A huge gantry crane was to lay the sleepers. Crushed stone from the Klipplaat quarry at the Krom River Valley would be used as ballast for the railway.[125] The most prominent constructions on the line were the Orange River bridge of 1 035 metres consisting of 22 piers/columns and the Baboon Point tunnel of 800 meters near the coastline at Elands' Bay.[126] As an undertaking of enormous proportions, ISCOR's General Project Manager, Gert Botha, stated with amasement that "it is a project where everything is planned in the superlative and the word super became commonplace".[127] Botha further elaborated that the iron export project could earn South Africa R600 million of foreign income with the expectation that an entire metallurgical province would be opened.

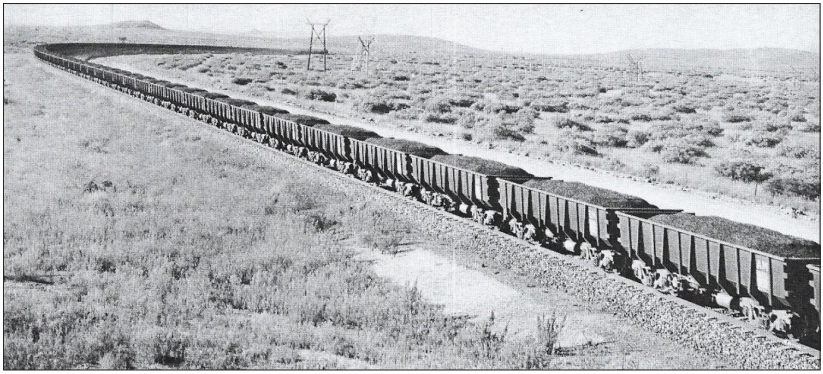
122 TAB, TES 10374, A2/18/38 A: Deel 2. Koördinerende Komitee vir oorhoofse beplanning vir die Sishen-Saldanha ontwikkelingsprojek: Bylae A (Aanhangsel Verslae). Kabinetsbesluit: 14 Februarie 1973: Sishen-Saldanha projek.
123 House of Assembly Debates, *Hansard*, 2 April 1973, column 3826.
124 *Construction in Southern Africa*, March 1974.
125 *South African Panorama*, August 1975.
126 *ISCOR News*, February 1974.
127 *Die Huisgenoot*, 16 January 1976.

Image 2: First arrival in Saldanha



Source: *ISCOR News*, October 1976

Image 3: Conveying a load of iron ore to Saldanha Bay



Source: *The Civil Engineer in South Africa*, November 1977

In an interview with ISCOR's managing director, Hans Coetzee, in February 1976, he declared his satisfaction with the construction on the railway line that would be completed by mid-1976 and that no delaying problems were being experienced.[128] Coetzee pointed to the excellent progress and gave his assurance that ISCOR did not stand in the way of private company initiatives. He further said that more than a thousand skilled labourers had been recruited from Western Europe and the United Kingdom, with hundreds being trained at local training centres to work on the project.[129]

Since Black labour had to comply with apartheid regulations, both the sites for the erection of accommodation facilities and their living conditions had to be approved. Five sites were selected and placed under discussion by the Northern Cape Bantu Affairs Administration Board: Saalskop, situated on the Boegoeberg settlement; Kleinbegin on the property of G.S.T. Kotze; an erf of the Kenhardt Municipality; Driekop Boomen River, a property of W.J. van Rooyen; and Dagab, a property of A.B. van Niekerk had to be evaluated and approved by the project leader of the Sishen-Saldanha project.[130]

It was stipulated that no unauthorised persons were to be allowed inside the Black living quarters. Records revealed that the prerequisites were that four persons were permitted to reside in the ski-cabin rooms made from timber-hardwood.[131] Stoves were to be installed in the sleeping rooms. Only single male Black workers were to be accommodated in the living quarters.[132] Sanitation and washing amenities were to be communal. Since ISCOR's renting of the above mentioned sites implied full rights reserved, it could access water sources by means of water-boring and wells in order to enable a constant water supply to Black workers. As a surveillance measure, the local managerial authority was to inspect conditions and to ensure regulatory compliance.[133]

In cutting through the countryside, the issue of expropriations and compensation was done in a tactful and coordinated manner. Official objections from affected farmers were, in many respects, minimal, except for instances, such as the dissatisfaction of a Mr. Olivier concerning the diverting

128 *Volkshandel*, February 1976.
129 *Volkshandel*, February 1976.
130 Western Cape Archives and Records Service (WCARS; Cape Town) WCARS, CDN 103; ref. (10) N3/12/2 (2). Bantu Labour. Bantu Quarters, Kleinbegin, Kenhardt. Sishen-Saldanha Project, 1973-1976.
131 WCARS, CDN 103; ref. (10) N3/12/2 (11). Bantu Labour. Bantu Quarters, R.V.S. Construction, Kenhardt. Sishen-Saldanha Project, 1973-1976.
132 WCARS, CDN 103; ref. (10) N3/12/2 (11). Bantu Labour. Bantu Quarters, R.V.S. Construction, Kenhardt. Sishen-Saldanha Project, 1973-1976.
133 WCARS, CDN 103; ref. (10) N3/12/2 (11). Bantu Labour. Bantu Quarters, R.V.S. Construction, Kenhardt. Sishen-Saldanha Project, 1973-1976.

of a minor road, no. 134, adjacent to the railway line, and the expropriation of a piece of land on his farm, Ja-Broer, to the border of the B.F Martiz's farm, Langlaagte.[134] After official correspondence between ISCOR's Gert Botha, promising appropriate compensation payments, and the Divisional Council of Kuruman, a consensus was reached. Permission was granted to improve a minor road to the Postmasburg-Sishen road.[135] Furthermore, Frans Smit, whose farm at Modderfontein was crossed, with ISCOR building a tunnel for his cattle to pass underneath, later mentioned that it was inadequate and prevented his cattle from moving through it. Despite Smit's disillusionment, he nonetheless displayed appreciation for continuing the railway project, saying that "one cannot fight against thunder" and accept the offer of compensation at a reasonable price.[136]

The construction often faced severe physical problems. The considerable rain and consequent mudslides and sand drifting over the railway line passing through dune areas were the most common hazards. Then, in September 1976, the celebratory moment came when the project was finally completed. The first fully laden train of 202 wagons hauled by six locomotives arrived at Saldanha Bay, with ISCOR staff enthusiastically applauding.[137] Together with Dr J.G Botha and Johannes Petrus Coetzee, the chairman of ISCOR, Dr Thomas Frederik Muller pressed the button to commence the reclamation of ore from the stockpile. Simultaneously, with the train's arrival, the first gigantic vessel to dock at Saldanha Bay, Fernsea, sailing on its maiden voyage from Norway, received its first iron ore load from belt conveyors at the far end of the Saldanha terminal. *ISCOR News* described the historic event as "…the culmination of an ambitious project".[138] As a token of praise, ISCOR was awarded the prestigious "Most Outstanding Civil Engineering Achievement" of 1976 from the South African Institute for Civil Engineers.[139]

5. CONCLUSION

The completion of the Sishen-Saldanha railway project proved a remarkable success for ISCOR in sanctioned apartheid South Africa. Its preparation and consequent intense political discussions in parliament, especially regarding

134 WCARS, 4/KMN 4/1/122. Sishen-Saldanha project, 1973 – 1974: 7 October 1974, Voorgestelde verlegging van 'n gedeelte van 'n ondergeskikte pad no. 134 oor Ja-Broer.
135 WCARS, 4/KMN 4/1/122: ISCOR letter from G.J. Botha to Divisional Council of Kuruma, 20 September 1974.
136 *Die Huisgenoot*, 16 January 1976.
137 *ISCOR News*, October 1976.
138 *ISCOR News*, October 1976, p. 3.
139 *The Civil Engineer in South Africa* November 1977, p. 262.

the Bill, and the decision on the port's geographical location, Saldanha or St. Croix, were lingering issues in politico-economic circles during the early 1970s. Despite opposition from the United Party, and post-apartheid assumptions that it was intended to create a growth point for Coloured labour, hence branding it a racist-orientated project, together with its impact on the environment alongside the railway line, it is safe to argue that ISCOR still managed to meet its objectives.

In comparison with other Southern African states recovering from the shackles of colonialism, civil war or a developmental backlog due to the departing of the colonial powers, South Africa still had the bulk of its industrial and knowledge-based expertise unchanged.[140] To this end, Pirie's statement is in agreement when he emphasised that "… whereas in the rest of southern Africa the fleshing out of rudimentary colonial networks and construction of alternative trunk routes had to rely on foreign aid and transit traffic revenue, South Africa was more fortunate".[141] Pirie ascribed it to South Africa's "ports and access to the sea [that] provided a measure of immunity outside the political turbulence".[142]

Given the historical context and the necessity to promote the exportation of raw materials, with iron ore as a principal mining resource from the Sishen mine in the north western Cape, it served the purpose of stabilising and at least up to the 1980s allow for an improved economy. In May 1978, barely two years after the inception of the railway export service, ISCOR announced that the exports of iron ore had increased by a staggering 431 per cent since the opening of Saldanha as a port. ISCOR even made the claim that its project could play a role in replacing gold as South Africa's mainstay foreign exchange earner.[143] The railway line opened up the heartland of South Africa for convenient access to Sishen and ore-rich areas, enabling the transportation of thousands of millions of tons of iron ore. By 1977 statistics showed that 17 million tons of ore had already been shipped from Saldanha in 144 ship carriers.[144]

140 After the collapse of Portuguese colonial rule in Angola and Mozambique the two countries were particularly devastated by civil war. In Mozambique the infrastructure and transport systems had been disrupted by Renamo with raids on the port of Beira as significant export port for linking Southern Rhodesia and Malawi, which severely impacted on the country's infrastructure.

141 Pirie, *Aspects of the political-economy of railways in Southern Africa in Environmental Studies,* p. 19.

142 Pirie, *Aspects of the political-economy of railways in Southern Africa in Environmental Studies*, p. 19.

143 *ISCOR News*, May 1978.

144 *ISCOR News*, May 1978.

Yet, the project was not flawless, as, in the same year, a derailment on the railway line at Lospers' farm 500 km north of Saldanha involving 36 wagons led to 14 wagons seriously damaged and eight having to be scrapped.[145] Thereafter, a specialised workshop for the replacement and maintenance of wagons was set up by the Mechanical Department at Saldanha.

Together with the Vorster government's other infrastructural projects, the Sishen-Saldanha railway project was hailed as an astonishing achievement. Following the takeover of the railway line by Transnet after 1977, then renamed the Ore Export Line (OREX), it broke the world record in October 2018 for the longest freight train in the world with 375 wagons.[146] Thus it remains evident that the motivations for its construction by the nationalists outweighed the opposition's concerns that the line would be unfeasible or impractical. In 1978 ISCOR concluded that its project "is a practical symbol of this country's determination and dynamism … a bold venture to provide the catalyst to open up a huge area richly endowed with minerals".[147]

145 WCARS, REU 191; 7154. Sishen-Saldanha Project and Wagons, 1977: Part of examination of SS10 Type wagons. Sishen-Saldanha Project, 4 April 1977.
146 *The Citizen*, 12 October 2018.
147 *ISCOR News*, May 1978.