AMSA Bidvest Saldanha Bay Logistics Hub (Phase 2)

Economic Impact Assessment 2023

Celebrate Development Diversity.

Specialist Report Requirements

NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT REGULATIONS, 2014 (AS AMENDED)

Regulation GNR 326 of 4 December 2014, as amended 7 April 2017, Appendix 6	**Section of Report**
1. (1) A specialist report prepared in terms of these Regulations must contain- a) details of- i. the specialist who prepared the report; and ii. the expertise of that specialist to compile a specialist report including a curriculum vitae;	Appendix A Appendix B
b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	Appendix C
c) an indication of the scope of, and the purpose for which, the report was prepared;	Section 1
(cA) an indication of the quality and age of base data used for the specialist report;	Section 1
(cB) a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	Section 2
d) the date and season of the site investigation and the relevance of the season to the outcome of the assessment;	Section 1
e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Section 1
f) details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternative;	Section 2
g) an identification of any areas to be avoided, including buffers;	N/A
h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Section 2
i) a description of any assumptions made and any uncertainties or gaps in knowledge;	Section 1

j) a description of the findings and potential implications of such findings on the impact of the proposed activity, (including identified alternatives on the environment) or activities;	Section 2, 6, and 7
k) any mitigation measures for inclusion in the EMPr;	Section 7
l) any conditions for inclusion in the environmental authorisation;	Section 7
m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Section 7
n) a reasoned opinion- i. (as to) whether the proposed activity, activities or portions thereof should be authorised. (iA) regarding the acceptability of the proposed activity or activities; and ii. if the opinion is that the proposed activity, activities, or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	Section 7, 8 and 9
o) a description of any consultation process that was undertaken during the course of preparing the specialist report;	N/A
p) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and	N/A
q) any other information requested by the competent authority.	N/A
2) Where a government notice *gazetted* by the Minister provides for any protocol or minimum information requirement to be applied to a specialist report, the requirements as indicated in such notice will apply.	N/A

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Section One: Introduction

1.1. Introduction

Urban-Econ Development Economists has been appointed by **WSP in Africa**, on behalf of **the Applicant** to undertake an Economic Impact Assessment for the proposed construction of a logistics hub at the AMSA Saldanha Works facility. The proposed logistics hub (Phase 2) is to be located on the remainder of farm 1132 on the border of the port of Saldanha in the Saldanha Bay Local Municipality within the Western Cape. In terms of the EIA Regulations various aspects of the proposed logistics hub may have an impact on the environment and are considered to be listed activities. These activities require authorisation from the Competent Authority, namely the Department of Environmental Affairs and Development Planning (DEADP), prior to the commencement thereof. Specialist studies (i.e., Socio-Economic Assessment) have been commissioned to verify the sensitivity and assess the economic impacts of the project under the Gazetted specialist protocols (GN R 320 and GN R 1150 of 2020).

1.2. Scope of Project

The purpose of the Economic Impact Assessment is to determine and assess the potential economic impacts of the proposed logistics hub (Phase 2). The Economic Impact Assessment report addresses the regulations as set out in the Environmental Impact Assessment Regulations of 2014, as amended (Chapter 4, Part 2: Basic Assessment; Appendix 6, Specialist Reports). The requirement for the assessment of the economic impacts associated with these developments are reduced to a basic assessment level, objectives of which are as follows:

- Engage with the environmental practitioner, other specialists on the team and the client to gain necessary background on the project.
- Delineate the zones of influence in consultation with other specialists on the team.
- Collect primary economic data (through personal or telephonic interviews) of the parties that may be affected directly or indirectly (positively or negatively) by the proposed project to address data gaps.
- Provide a baseline description of the study area, specifically focusing on the economic environment of the locality where the proposed development is to be implemented.
- Identify and describe positive and negative impacts associated with the proposed development during the development and operational phases.
- Propose mitigation measures to address possible negative effects and enhancement measures to increase the benefits derived from the project.
- Identify and analyse cumulative impacts.
- Provide an impact statement.

1.3. Methodology

The following highlighted methodology was utilised to complete the report.

Figure 1: Methodology

In addition to the above methodology the following key aspects should be noted as indicated in **Table 1**.

Table 1: Key Aspects

Aspect	Description
Information Source	Sources of information utilised for this report, include: - Review of planning documents - Literature review - Quantec Easy Data - WSP in Africa - AMSA - Specialist reports
Quality and Age of Data	The data utilised for the completion of this report is based on up-to-date information obtained through WSP in Africa. Sources of information are of high quality.
Duration, Date and Season of Site Investigation and Relevance of Season to Outcome of Assessment	An onsite site investigation was not required at this stage due to a sufficient understanding of the site being provided through WSP in Africa, AMSA and Bidvest. Thus, duration, date, and season of the site investigation are not relevant. Site understanding was obtained through provided literature and engagement with WSP in Africa, AMSA and Bidvest.
Identification of Areas to be Avoided	From an economic perspective, no areas should be avoided.
Assumptions, Limitations and Gaps in Knowledge	Key assumptions that form the basis of the assessment and discussions of the study: - Project-related information supplied by the team involved in the project was assumed to be reasonably accurate. Thus, all potential

Aspect	Description
	impacts are predicted based on this information. - The secondary data sources used to compile the economic baseline can be viewed as being indicative of broad trends within the study area; and - Impacts cannot be predicted with complete accuracy and these predictions are based on research and years of experience, taking the specific set of circumstance into account.
Required Permits	From an economic perspective, no permits are required.
Specialist Declaration	See Appendix A
Specialist CV	See Appendix B

1.4. Report Outline

The structure utilised to finalise the report is as follows:

- **Section Two:** Situational Analysis
- **Section Three:** Policy and Planning Environment
- **Section Four:** Commodities (Warehousing for Phase 2)
- **Section Five:** Status Quo
- **Section Six:** Economic Modelling
- **Section Seven:** Specialist Impact Assessment
- **Section Eight:** Assessment of Project Alternatives
- **Section Nine:** Conclusion and Recommendations

Section Two: Situational Analysis

2.1. Introduction

This section provides an overview of the proposed development concept, location, as well as future developments in the area.

2.2. Project Description

ArcelorMittal South Africa (Pty) Ltd (hereafter referred to as AMSA) in partnership with Bidvest Freight (Pty) Ltd (hereafter referred to as Bidvest), plans to develop a Logistics Hub at the AMSA Saldanha Works facility, located on the remainder of farm 1132 on the border of the port of Saldanha in the Saldanha Bay Local Municipality within the Western Cape.

According to WSP in Africa, the Port of Saldanha is the natural gateway for ore and mineral exports (including manganese and iron ore) from the Northern Cape. The goal of the Hub is to utilise its strategic position as a "back-of-port" operator to support increased volume flow of both export and import cargoes through the Port of Saldanha.

The site's location and installed infrastructure lends itself to receiving bulk cargo for stockpiling and export, given its proximity to the Port of Saldanha. A new warehouse will be constructed to house environmentally and weather sensitive cargos, which will be linked to the existing handling and conveyancing systems.

The size of the warehouse will be approximately 14,000 m^2 excluding associated infrastructure, i.e., tipplers, rail siding, conveyance systems and transfer stations. The proposed operation at the Logistic Hub entails the receiving, handling, storage, and dispatch of various bulk commodities for local and export purposes.

Importantly, an alternative exists to the above-mentioned option, whereby, the only difference is the location of the warehouse. Regardless of warehouse locations, the same rail routes, truck access routes, commodities transfer station and tipplers will be utilised. Importantly, reasons over choosing the preferred alternative (Option 1) over the other alternative (Option 2) are indicated below.

- The warehouse Option 1 is positioned along the northwestern perimeter of the site and is more accessible for rail, conveyers, mobile plant, and trucks both coming in and leaving the logistics hub.
- The extended rectangular shape of the Option 1 warehouse provides a longer eastern façade which is the leeward side of the warehouse facilitating more entrances along this façade. This allows for more efficient movement of vehicles into and exiting the building without loss of internal surface area for equipment movement.
- The Option 1 warehouse allows for easier expansion of the warehouse or logistics hub as it is positioned parallel/longitudinal to the disturbed footprint on site. The horizontal expansion of Option 2

will result in disturbance to existing facilities eastwards of the proposed alternative site or disturbance to undisturbed areas west of the site.

- The Option 2 warehouse layout crosses an existing access route that would be used by the haul trucks as entry and exit points from the logistics hub, requiring realignment of access roads to facilitate movement of haul trucks.
- Option 1 warehouse allows for easier design of the overhead tripper conveyor that would convey tippler product southwards inside the warehouse, discharging into the stockpile by gravity. The gantry-in-roof concept would eliminate the need for any trestles in the warehouse, thereby improving traffic operations and wheel loader activities at ground level. Should the warehouse be extended in future, the conveyer drive and head pulley could be moved forward and the conveyor with gallery extended accordingly.
- Option 2 was considered as an alternative for the logistics hub warehouse location to determine whether a cost-saving (cost-benefit) could be achieved by using an existing stacker/reclaimer at this location on the site. However, on further analysis there was no cost-benefit to using the existing stacker/reclaimer for the Option 2 for following reasons:
    - The existing stacker/reclaimer is used for the receipt, storage and dispatch of outside commodities and there may be conflict and significant delay in operations in using the same stacker/reclaimer inside the warehouse for the logistics hub complex and for the receipt, storage, and dispatch of cargo outside the warehouse at the same time.
    - This would interfere with future steel making operations as the steel making operations will utilise the existing stacker/reclaimer on site.
    - Should any maintenance be required on the existing stacker/reclaimer this will influence both the operations at the logistics hub complex and steel making processes.
    - From an operational viewpoint there is no improvement in efficiency by selecting option 2.
    - Option 1 was therefore selected as the preferred option for the location of the logistics hub warehouse.

A visual illustration of the of two alternatives (Option 1 and Option 2) is indicated in the map below.

Map 1: Alternative Locations (Warehousing)

(WSP in Africa via Google Earth, 2023)

The proposed logistics hub (Phase 2) regardless of alternatives aims to handle a maximum of 5 million tonnes of bulk commodities per annum. Commodities to be handled at the Logistics Hub includes Manganese Ore, Phosphate Concentrate, Lead Concentrate, Copper concentrate, Zinc Concentrate, Garnet sand, Anthracite, Ilmenite and Zircon sand. A list of the commodities is indicated in the table below.

Table 2: Commodity List and Annual Tonnage

Commodity	Maximum Annual Tonnage
Manganese Ore	4 million tons
Phosphate concentrates	2 million tons
Garnet Sands	0.5 million tons
Zircon Sands	0.5 million tons
Lead concentrate	0.25 million tons
Copper concentrate	0.25 million tons
Zinc concentrate	0.25 million tons
Total Maximum Bulk Commodities Handled	5 million tons

Note: Prior to the construction and operation of the proposed Logistics Hub (Phase 2), there was zero tonnes storage as new commodities listed in Table 2 would not be allowed by the West Coast District Municipality to be stored onsite without the warehouse. Iron ore commodities were previously authorised by the West Coast District Municipality and DEADP, and stored by AMSA for the steel making process.

2.3. Project Location

The proposed logistics hub (Phase 2) regardless of alternative is to be located on remainder of farm 1132 on the border of the port of Saldanha in the Saldanha Bay Local Municipality within the Western Cape. The map below provides a visual illustration of the proposed logistic hub (Phase 2).

Map 2: Locality Saldanha Bay Logistic Hub

(Urban-Econ via Google Earth, 2023)

Accessibility to the site can be gained off TR8501 which can be accessed via the R301 and/ or the R27 which link up with the R45. A visual illustration of the accessibility to the site is provided in the map below.

Map 3: Accessibility

(Urban-Econ via MapAble, 2023)

Within the immediate area of the proposed logistics hub (Phase 2), sensitive receptors have not been identified, with the area predominantly comprising of open areas, light industry to the west, a Transnet Port Iron Ore Terminal to the south-southwest, two steel processing plants to the east and a third to the northeast, as well as a petroleum storage facility to the southeast of Saldanha Steel.

Importantly, the site for Phase 2 falls in the back of port area to the Saldanha Bay Industrial Development Zone (SBIDZ) which is a 356ha space that caters specifically to the oil and gas, maritime fabrication, marine repair, logistics and related support services. The SBIDZ is a special economic zone that aims to ensure compliance with the constitution of the Western Cape which is done by activating growth and development through an enabling and inclusive environment. The purpose of the SBIDZ is as follows (Saldanha Bay IDZ Licencing Company SOC Ltd, 2021/2022):

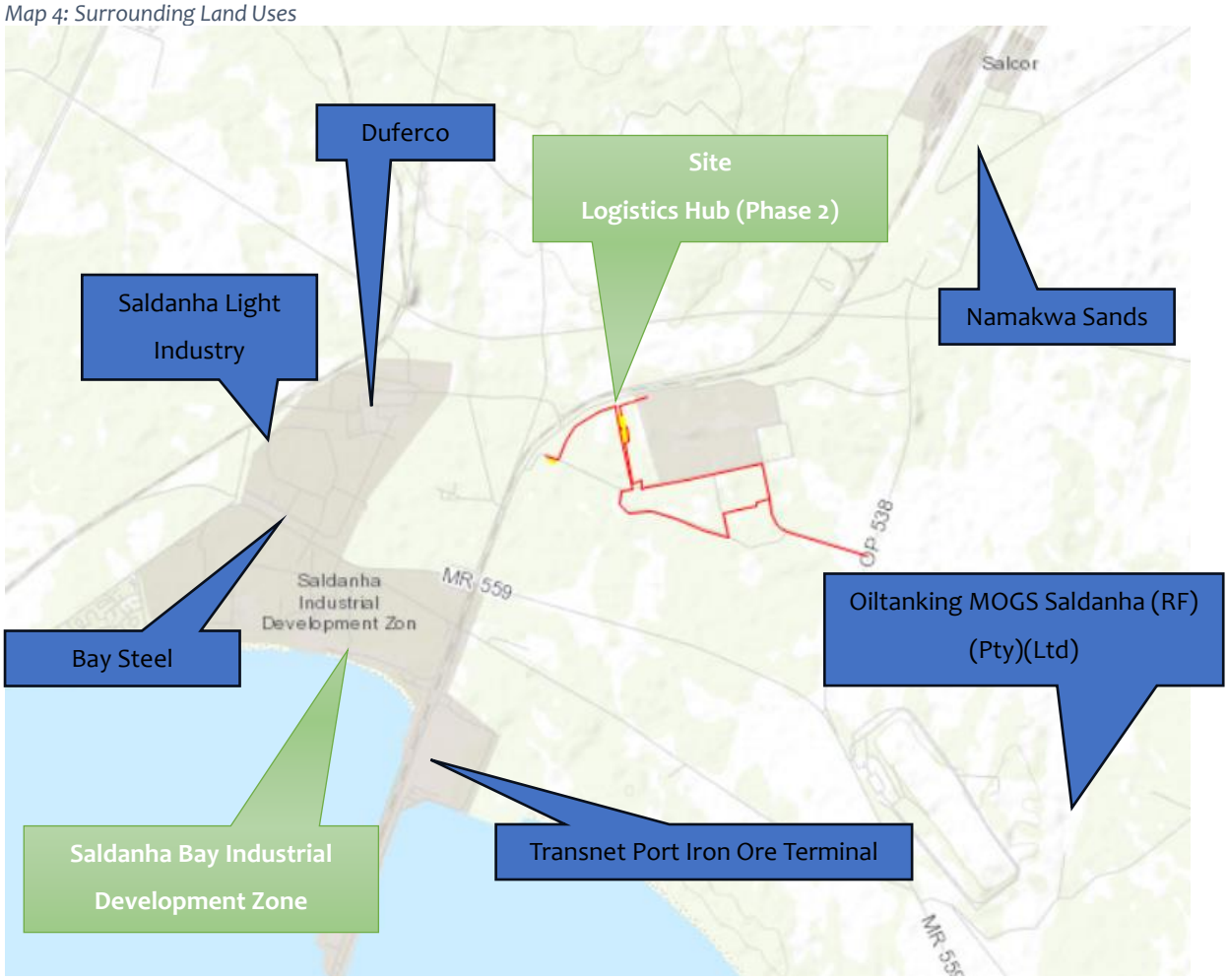
- To attracting foreign and domestic direct investment.
- To provide a location for the establishment of targeted investments.
- To take advantage of existing industrial and technological capacity, promoting integration with local industry and increasing value-added production.
- To promote regional development.
- To creating decent work and other economic and social benefits in the region, including the broadening of economic participation by promoting small, micro, and medium enterprises and co-operatives, and promoting skills and technology transfer; and

- To generate new and innovative economic activities.

As of 2021, the SBIDZ has attracted more than R21 billion worth of private investment and created over 2900 jobs over the last 5 years. However, in March 2020, Saldanha Steel which is owned by ArcelorMittal South Africa (AMSA) was placed under care and maintenance. The closure of Saldanha Steel resulted in the loss of around 900 jobs of which 550 were directly employed by AMSA. Ripple effects were felt by many companies, one of which was Kumba Iron Ore which reduced its sales guidance for 2019 by up to 1.5 million tonnes to between 41.5 to 42.5Mt owing to the planned closure.

A visual illustration of the identified surrounding land uses is indicated in the map below.

Map 4: Surrounding Land Uses



(Urban-Econ via MapAble, 2023)

2.4. Future Developments

According to the West Coast District Municipality Integrated Development Plan, a range of developments are planned for the Port of Saldanha which are listed below:

Short Term Layout

- New liquid bulk storage areas are allocated within the current and proposed new port limits.
- LNG Gas to power the FSRU structure connected to the new LNG facilities.
- Operationalising the eastern side of the oil jetty (liquid bulk terminal).
- Expansion of the commercial logistics area (Port Logistics Park).
- Maritime manufacturing and engineering area increase towards the east as part of IDZ/ SEZ development.
- General maintenance quay converts to an offshore supply base and is included in the customs cleared area.

Medium Term Layout

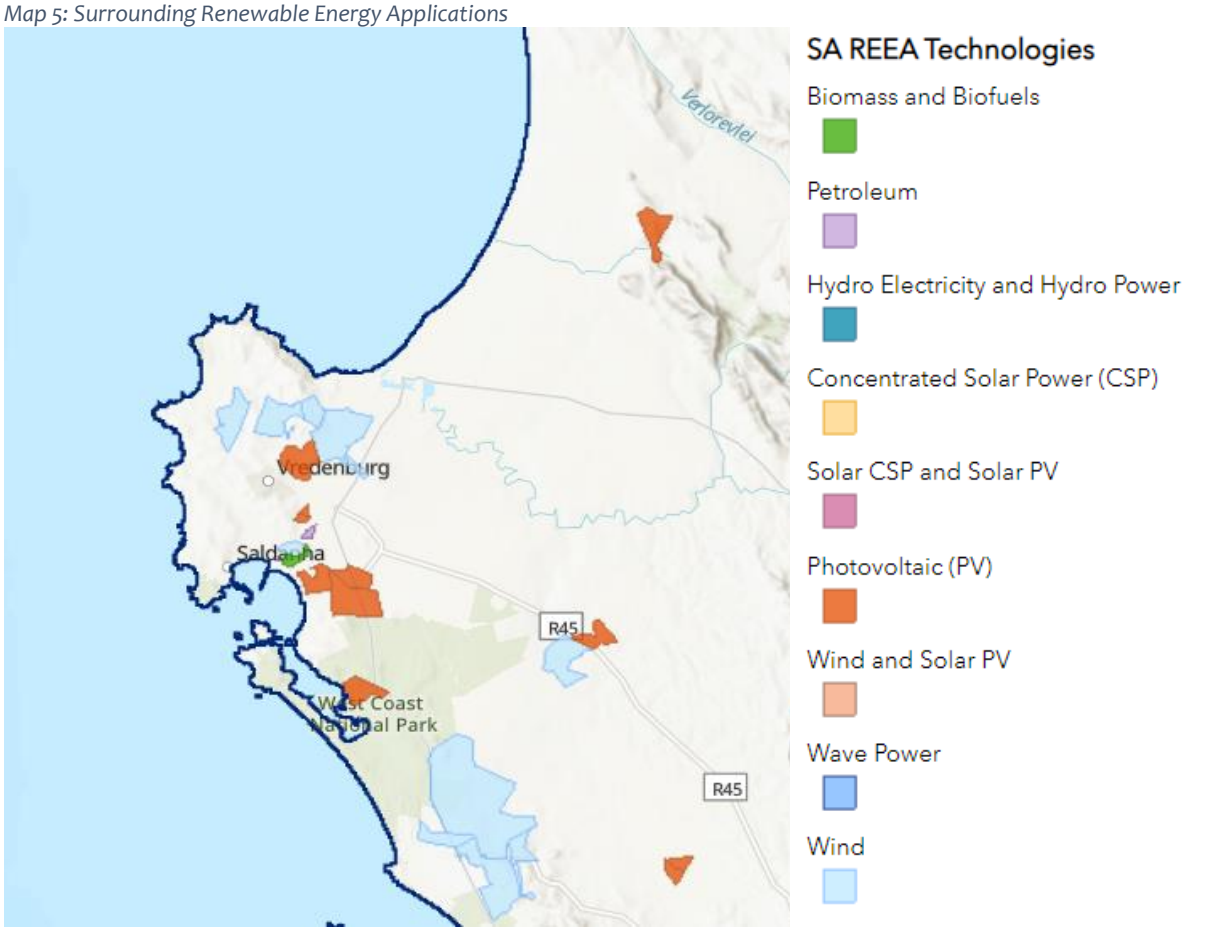
- Land reclamation next to the current iron ore stockyard for the construction of new LNG facilities (long term) / increase of iron ore stockpile area.
- The old Mossgas Quay converts to maritime engineering berth together with additional maritime engineering berths as provision for a dedicated facilities for rig and ship repair.
- One additional maritime engineering berth for ship repairs adjacent (southern side) to the break bulk (MPT) berths.
- One additional dry bulk berth adjacent (south) of the new ship repair berth.
- Break Bulk (MPT) extension towards the north providing one additional Break Bulk (MPT) berth at the Break Bulk terminal.

Long Term Layout

- New proposed land-based LNG storage area inside the port limits.
- Decommissioning of the MBM and subsequent replacement with fixed LNG berths (eastern side of the port).
- Expansion of the Offshore Supply Base.

In addition to the above developments as per the Department of Forestry, Fisheries, and the Environment, several renewable energy applications have been identified within a 35km radius of the site identified for the proposed logistics hub (Phase 2) which are indicated in the map below.

Map 5: Surrounding Renewable Energy Applications



(DFFE, 2023)

Cumulatively, the potential developments within the Port of Saldanha along with the renewable energy projects within a 35km radius, in combination with the proposed logistics hub (Phase 2) regardless of alternative will result in impacts that would influence not only surrounding communities but the broader economy. It is important to identify the potential impacts of the proposed development as they will assist in assessing the cumulative impact of the project.

2.5. Conclusion

The proposed logistics hub (Phase 2) regardless of alternative is a back-of-port facility to the Port of Saldanha and is located in an industrial zone and away from densely populated residential areas. The industrial sense of the area plays a functional role in the local sense of place, and with the proposed logistics hub (Phase 2). It is unlikely that the surrounding industrial facilities would be impacted by the construction and operation of the proposed logistics hub (Phase 2) regardless of alternative as such the proposed development is in line with the current and future land uses of the area. Future developments in the area play an important role in understanding if any economic impacts may result from a cumulative perspective.

Section Three: Policy and Planning Environment

3.1. Introduction

The policy review plays an integral role in the early stages of a project. The review provides a high-level indication of whether a project is aligned with the goals and aspirations of the developmental policy within a country and at a local level. Furthermore, the analysis indicates any red-flag or developmental concerns that could jeopardise the development of the proposed logistics hub (Phase 2) regardless of alternative. This assists in amending and preventing costly and unnecessary delays.

3.2. Identified Policy and Strategic Documents

The table below highlights policies applicable to the proposed development.

Table 3: Policies

Policy	Alignment
National Policy	
National Development Plan (2011)	The National Development Plan 2030 (National Planning Commission, 2011) aims to address poverty and exclusion whilst simultaneously nurturing economic growth. To achieve this dual goal, the NDP has noted that government ought to establish an enabling environment for higher levels of public and private investment to create jobs and ensure increasing income levels (National Planning Commission, 2011). In line with these aims, the target for 2030 is an economy that is close to full employment. Particularly, eleven million jobs are targeted to be created by 2030 through raising exports and competitiveness. In the short-term, the economy is expected to create jobs specifically for young and low-skilled South Africans, who dominate the unemployed. The South African economy has large global shares in group metals, gold, diamonds, manganese, coal, iron ore and uranium. In addition, mining, minerals, and secondary beneficiated products account for almost 60% of export revenue. Yet, over the past decade, the mining sector has not been able to match the global growth trend in mineral exports due to poor infrastructure and regulatory and policy frameworks that hinder investment. The NDP thus, proposes to increase mining exports by giving clear certainty over property rights and increasing rail, water, and energy capacity in the country.
New Growth Path Plan (2011)	The vision of the New Growth Path Framework 2011 (Department of Economic Development, 2011) is to ensure that jobs and decent work

	are at the centre of economic policy (Department of Economic Development, 2011). The key problem issues are mass joblessness, poverty, and inequality. The NGPF, unlike the NDP 2030, views mining as a job creating sector. One of the job drivers' strategies is to target more labour-absorbing activities across the main economic sectors, of which one is the mining value chain. In line with the strategy, a priority effort is to support employment creation in the mining value chain, towards which the proposed project will be directly contributing. The framework aims to create five million new jobs by 2020. Projections by the Industrial Development Corporation suggest that mining can add 140 000 additional jobs by 2020 and 200 000 jobs by 2030, excluding the multiplier effects (Department of Economic Development, 2011).
Industrial Policy Action Plan (2018/2019 – 2020/2021)	The Industrial Policy Action Plan 2018/2019 – 2020/2021 (Department of Trade and Industry, 2017) represents a significant step forward in scaling up the country's efforts to promote long-term industrialisation and industrial diversification (Department of Trade and Industry, 2017). One of the key themes of the plan is radical economic transformation whereby decent sustainable jobs - particularly for the most marginalised and vulnerable groups of society - are created. In addition, the plan calls for the increase in the local demand aggregate through the support of local suppliers by the private sector (Department of Trade and Industry, 2017). Moreover, a focus on labour intensity that links the primary and secondary sectors is envisaged. According to the Industrial Policy Action Plan, the mining sector has been in distress since 2013 due to challenges in infrastructure access and capacity, above inflation input costs, productivity challenges at many mines, labour instability, and the regulatory political and legal environment. The plan reveals that a unanimous recommendation from the Mining Phakisa deliberations was that the future of mining and its competitiveness is going to depend on innovative research and development (R&D) and competitive domestic supply chains.
A Beneficiation Strategy for the Minerals Industry of South Africa (2011)	The strategy serves to provide a framework that will enable an orderly development of the country's mineral value chains (Department of Mineral Resources, 2011). It is noted that steel and stainless steel are major consumers of manganese, and South Africa is a major producer of this mineral. Interventions developed for the

	optimal value creation of iron and steel development are: - Address import-parity pricing of iron ore and steel for downstream users to support the final fabrication process. Measures to achieve this end could include taxes on exports and conditionalities linked to the provision of infrastructure. - Develop strategies to address other constraints on downstream steel fabrication, including identifying major opportunities for using steel for local product: o Invoke regulatory provisions to ensure sustainable and developmentally priced input mineral commodities for new and existing steel manufacturers in South Africa. o Investigate mechanisms to protect and support the competitiveness of existing intermediary plants, such as ferro-chrome smelters. o Encourage investment into South African steel industry to break prevailing anti-competitive behaviour of current operators.
Provincial Policy	
Western Cape Provincial Micro Economic Development Strategy (2005)	The Western Cape Provincial Micro Economic Development Strategy (Western Cape Government, 2005) consists of a comprehensive framework of cost-efficient interventions to boost the Western Cape's economy with the view that it may be sustainable in the future. In addition, the Western Cape Provincial Micro Economic Development Strategy hopes to create an economy that facilitates transformation. The Western Cape Provincial Micro Economic Development Strategy 2005 has provided tailor-made strategies for 18 sectors that are identified as having high growth potential including the five sectors identified by the national government, namely: (1) exports; (2) tourism; (3) agriculture; (4) ICT; and (5) cultural industries. The Western Cape Provincial Micro Economic Development Strategy 2005 acts as a leading reference for Provincial and Local government when making decisions on economic matters. The WCMEDS 2005 aims to use policy levers and institutional mechanisms to create a link between the private and public sectors to maintain a transparent and open governance structure.
Western Cape Provincial Strategic Plan (2019 - 2024)	The Western Cape Provincial Strategic Plan (Western Cape Government, 2014-2019) sets out our five strategic goals that aim to

	be part of creating an enabling environment for higher economic growth and increased jobs and improve education and health outcomes and build better living environments for its citizens. The five vision inspired priorities are as follows: - Safe and cohesive communities. - Growth and jobs. - Empowering people. - Mobility and spatial transformation. - Innovation and culture
District Policy	
West Coast District Municipality Integrated Development Plan (2022 - 2027)	The West Coast District Municipality Integrated Development Plan 2022 - 2027 is the main strategic instrument which seeks to guide, inform planning, management, and development of the municipality. It creates a platform for communities, stakeholders, the private sector, and non-governmental organisations to engage meaningfully regarding major and future developments and to encourage potential investors to invest in the West Coast which will contribute to the alleviation of poverty and the enhancement of economic growth. The strategic goals identified are as follows: - Ensuring environmental integrity of the West Coast. - Pursuing economic growth and facilitation of job opportunities. - Promoting the social well-being of the community. - Promoting bulk infrastructure development services. - Ensuring good governance and financial viability. The West Coast District Municipality Integrated Development Plan 2022 – 2027 identifies the Saldanha port and manufacturing sector are key to economic performance. Importantly, Transnet issued a request of interest for a private sector operator to develop the back of port iron-ore and manganese facility in Saldanha. However, at the time the request was not issued due to concerns around environmental impacts.
West Coast District Municipality Spatial Development Framework (2020)	The West Coast District Municipality Spatial Development Framework 2020 seeks to promote sustainable development, prioritise development in highest growth potential areas, encourage and facilitate development along key corridors within the West Coast District. The West Coast District Municipality Spatial Development

	Framework is based on three overarching themes, namely: - The ***Built Environment*** overarching goal is to enhance the capacity and quality of infrastructure in the areas with the highest economic growth potential, while ensuring continued provision of sustainable basic services to all residents in the district. - The ***Socio-Economic Environment*** overarching goal is to facilitate and create an enabling environment for employment, economic growth, and tourism development, while promoting access to public amenities such as education and health facilities. - The ***Bio-Physical Environment*** overarching goal is to enhance and protect the key biodiversity and agricultural assets in the district and plan to minimise the human footprint on nature, while mitigating the potential impact of nature (climate change) on the residents of the district. The central focus of West Coast District Municipality Spatial Development Framework 2020 is on the integration of industrial growth, urban growth, and infrastructure provision to ensure that there are no disparities between urban growth and service delivery. This policy also focuses on the fostering of equitable access to the region's resources and amenities, which may contribute to business retention and the attraction of private investments. In addition, the Saldanha Bay Harbour is highlighted as a key economic catalyst and its utilisation and potential should be optimised. Thus, new initiatives such as the IDZ, better use of back of port should be considered and promoted.
West Coast District Municipality Regional Economic Development Strategy (2007)	The West Coast District Municipality Regional Economic Development Strategy 2007 indicates that the future quality of life of the communities in the WCDM depends on the ability of stakeholders (public, private, civil society, and labour) to collaborate to improve the districts global competitiveness and accelerate economic growth, job creation, black economic empowerment, and poverty reduction. The West Coast District Municipality Regional Economic Development Strategy 2007 has four main aims: - Get the basics rights and retain existing jobs. - Grow competitive businesses.

	- Attract new investment and funding. - Share the benefits of growth. The emphasis of the West Coast District Municipality Regional Economic Development Strategy 2007 is for the West Coast District Municipality in conjunction with the municipalities to ensure an economy that will enhance and generate sustainable jobs, reduce poverty, and improve the standard of living of our communities.
Local Policy	
Saldanha Bay Local Municipality Integrated Development Plan 2022 – 2027	The Saldanha Bay Local Municipality Integrated Development Plan 2022- 2027 seeks to support sustainable development of the municipal area and its communities through integration and balancing of the economic, ecological, and social factors which influence development. This integration and balancing must be achieved without compromising the institutional capacity required to implement and coordinate the actions required across different sectors and spheres of government. The Saldanha Bay Local Municipality Integrated Development Plan 2022- 2027 has identified strategic objectives, namely: - Foster community development through upliftment, integration, empowerment, and communication. - Build a diversified economy through investment, growing current and new businesses and enabling the creation of sustainable jobs. - Provide cost effective services with financial and institutional sustainability. - Promote innovation and modern technology to enhance service delivery and increase opportunities. - Implement interventions to deliver community safety, clean spaces, and environmental protection. - Provide enhanced basic services that are reliable, efficient, and affordable. These ten key strategies serve as the foundation for the municipality to realise its vision, help drive National and Provincial agenda, expand, and enhance infrastructure and to make sure its residents have access to the essential services they require. In addition, Saldanha Bay, in which the proposed development is located, has a natural deep-water harbor which provides comparative advantages

	around which globally competitive and job rich sectors can be built.
Saldanha Bay Local Municipality Spatial Development Framework (2019)	The vision of the Saldanha Bay Local Municipality Spatial Development Framework 2019 is to ensure spatial justice, spatial sustainability, efficiency, spatial resilience, and good administration. Integrally linked into the vision are the intended objectives which are: - To develop and maintain a strong local economic base, through the promotion of non-consumptive tourism, industrial development, and the role of agriculture in the municipal area's economy. - To protect and conserve the heritage resources of the area. - To provide an environmentally and economically sustainable bulk service infrastructure and road transport network. - To address the social needs and expectations of all sections of the community. - To promote the conservation and sustainable use of natural resources in the Saldanha Bay Municipality. - To ensure that ongoing development pressure and its spatial implications are managed in a sustainable manner that protects the unique character of the existing cultural landscape and the place-specific character and form of the existing settlement pattern. The promotion of industrial development is seen as a priority with the Saldanha Bay Local Municipality, especially in the Saldanha Bay Industrial Development Zone. Furthermore, while industrial development is promoted, it is noted within the Spatial Development Framework that the need for industrial development should be addressed without negatively impacting on the negatively on the sensitive natural environment.
Saldanha Bay Local Municipality Medium Term Economic Development Strategy (2013)	The Saldanha Bay Local Municipality Medium Term Economic Development Strategy 2013 acts as a reference guide for the planning and development of projects at a local level. The Medium-Term Economic Development Strategy 2013 makes provision for the need for beneficiation to promote localization and the development of industry specific skills in the region. It highlights that Saldanha Bay is a valuable resource for sustainable growth and development. Its

	importance as a development node comes from its natural and locational comparative advantages, such as its natural harbor, conducive environment for tourism growth as well as the Industrial Development Zone, and that it provides the platform around which global competitive and rich sectors can be built. Growth within the municipality can be expected from labour intensive sectors, such as oil and gas, tourism, steel fabrication and aquaculture.

3.3. Alignment of the Proposed Project

The policy and planning environment is supportive of the need to expand on industrial activities and is a key sector in terms of economic performance. The development and operation of the proposed logistics hub (Phase 2) regardless of alternative would contribute not only in terms of gross domestic product and production, but also employment opportunities (direct, indirect, and induced), household income and government revenue. However, consideration must be given to the surrounding environment both natural and social. From a policy and planning perspective, the proposed logistics hub (Phase 2) regardless of alternative meets several specific policy objectives, such as being strategically located within proximity of the active harbour thus allowing for improved exports and imports of commodities, as well as expansion of industrial activities in an industrial hub and development node. Importantly, it must be noted that the Saldanha Bay Local Municipality as per their Spatial Development Framework highlights the promotion of industrial development as a priority. Furthermore, the natural deep-water harbour which provides comparative advantages around which globally competitive and job rich sectors can be built, i.e, proposed logistics hub (Phase 2) regardless of alternative. Taking the above into consideration, there are no red flags concerning the proposed project.

Section Four: Commodities (Warehousing for Phase 2)

4.1. Introduction

While the proposed logistics hub (Phase 2), regardless of the alternative, will focus on a range of commodities, a key focus is on the warehousing of manganese. The following section provides a brief understanding of manganese, as well as a brief description of other commodities to be stored.

4.2. Manganese

4.2.1. What is Manganese and its Application?

Manganese is a chemical element, typically found in the form of manganese oxides, which are abundant in soil, rocks, and minerals. One of the primary uses of manganese is the production of steel, where it acts as a deoxidiser and desulfurizer, thus, improving the strength and toughness of steel. Manganese is also used in batteries, electronics, fertilizers, animal feeds, water treatment chemicals, and other chemicals (U.S. Geological Survey (USGS), 2014; U.S. Geological Survey (USGS, 2022).

4.2.2. Volume of Manganese in South Africa and Demand

In 2021, the total production volume of manganese in South Africa reached over 19 million metric tonnes (Statista, 2023). The global manganese market is estimated to register a compound annual growth rate of over 4.19% during the forecast period (2022-2027). Overall, according to the Institute of Civil Engineers, the global construction market is projected to grow by US$8T by 2030, driven predominantly by the USA, China, and India. Furthermore, the Asia Pacific is expected to dominate the growing construction industry with the rapid urbanization of developing countries. The price of manganese has seen volatile movements, due to COVID-19 as well as global oversupply. However, the price of manganese has levelled out with supply being predicted to fall into a deficit thus leading to global price increases (The Assay, 2022).

As of August 2023, South Africa's Manganese Ore exports accounted for up to R4.43 billion and imports accounted for approximately R4.3 million, resulting in a positive trade balance of just under R4.43 billion. The top export destinations are China (R2.5 billion), India (R733 million), Malaysia (R224 million), Norway (R202 million), and Singapore (R165 million), and were imported mostly by Zambia (R4.32 million), Zimbabwe (R32.2 k), Gabon (R937), and Namibia (R70).

Importantly, a decrease in year-by-year exports and imports was noticed, with a decrease in exports by Singapore (- 11.3%), United States (- 62.1%), and United Kingdom (- 83.2%) occurring; additionally, a decrease in imports by Zambia (- 22.8%) occurred (OEC, 2023).

4.2.3. Export Channel

Based on information provided by AMSA, a growth in the export of manganese in the last decade has been seen, particularly, with exports loaded at the existing multi-purpose terminals using skips and ships gear. In 2011, manganese export was around 6.87 million tonnes which grew to 17.5 million tonnes in 2019. Due to COVID restrictions, a dip in exports occurred, however, 2022 saw a recovery with around 19 million tonnes

exported out of South Africa. Of these 19 million tons exported out of South Africa, roughly 13,7 million was exported from the Nelson Mandela Bay ports and approximately 4,8 million tons exported from Saldanha in 2022. The reason behind the growth lies in the gap that exists between the capacity of the bulk manganese ore terminals in Gqebertha and Saldanha, and the world demand for manganese, driven primarily by China.

The global demand for manganese resulted in the opening of additional mines in the Northern Cape, and as such it became necessary to find alternate logistics solutions for the export of manganese, hence the loading of vessels at multi-purpose terminals using skips and ships gear. The majority of manganese that is transported from the Northern Cape to South African ports is exported through Transnet's MECA programme. The purpose of the programme is to offer miners in the Northern Cape an integrated mine-to-ship logistics service utilising TFR's rail network, TPT's port terminals and where required, private "back-of-ports" terminals.

Tariffs are equalised between customers, thus ensuring customers are relatively indifferent to the harbour their volumes are allocated. In the case of the private "back-of-ports" operators in both Gqebertha and Saldanha. Transnet negotiates the handling and storage rates with the operators and then incorporates them into its equalized "through" tariff. This implies that Transnet provide the customers and the allocation is independently based on commercial and efficiency factors (AMSA, 2023).

In addition to the manganese that is transported via rail, approximately 3 million tonnes are transported via road from the Northern Cape. This is significantly more expensive than transporting via rail; this in turn is resulting in manganese exporters to increase volumes by finding more efficient and competitive export routes. Due to the mass/load restrictions on public roads for exports in the Nelson Mandela Bay region, ship loading efficiencies are much lower than Saldanha Bay. In Saldanha Bay manganese ore via skip (from back of port operators) is moved on a private haul road whereby vehicles can move approximately 60-to 80 tons of cargo weight per vehicle (either 3 or 4 skip road trains). Manganese ore skip ship loading rates out of NMB ports are typically around 6 000 – 7 000 tons per day which is at least half the 12 to 15 000 tons per day that is typically achieved in Saldanha. The table below highlights the growth in manganese through the Port of Saldanha between 2016 and 2022.

Table 4: Manganese Export Growth between 2016 and 2022 (Port of Saldanha)

	2016	2017	2018	2019	2020	2021	2022
Port of Saldanha	2,875,800	4,179,041	4,230,500	4,482,572	4,189,845	4,441,848	4,853,711

(AMSA, 2023)

It should be noted that for manganese ore and other commodities to be stored at the proposed Logistics Hub (Phase 2) and in turn enabling export, the West Coast District Municipality indicated that adequate storage is required as per the district's by-laws. Additionally, to commission the proposed Saldanha Bay Logistics Hub (Phase 2) which will enable the export of Manganese Ore the following is required:

4.3. Other Commodities

4.3.1. Zinc, Lead, and Copper Concentrate

Zinc, lead, and copper concentrates are mined by Verdanta at its Gamsberg and Black Mountain operations in the Northern Cape. It was noted that Verdanta is considering the development of a zinc smelter capable of producing between 250,000 and 300,000 tons per annum of zinc ingots, with Saldanha Bay being a viable option for its location. As the end of 2021 (*latest complete statistics*) according to the Observatory of Economic Complexity (OEC, 2023), South Africa:

- South Africa exported $466M in zinc ores and concentrates with the main destinations being China, South Korea, Australia, Zimbabwe, and Brazil. While imports accounted for $591k with receipt of zinc ores and concentrates coming from Zambia, Thailand, Turkey, Ireland, and the United Kingdom.
- South Africa exported $76.4M in lead ores and concentrates with the main destinations being China, South Korea, Netherlands, Germany, and Namibia. While imports accounted for $39.4k with receipt of lead ores and concentrates coming from United States, Nigeria, India, Romania, and Namibia.
- South Africa exported $264M in copper ore with the main destinations being China, Mozambique, Australia, Cambodia, and the Democratic Republic of Congo. While imports accounted for $5.67M coming from Botswana, Zambia, Zimbabwe, Brazil, and Namibia.

The latest trends for each of the above listed commodities is indicated below:

- Recently, in October 2023, South Africa in terms of zinc ores and concentrate exports accounted for R805k while imports accounted for R1.69k, resulting in a positive trade balance of R803k million. The key export markets are Zimbabwe, Botswana, Democratic Republic of Congo, and China.
- Recently, in August[1] 2023, South Africa in terms of lead ore and concentrate exports accounted for R329 million while imports accounted for R2.58k, resulting in a positive trade balance of just under R329 million. The key export market is South Korea.
- Recently, in October 2023, South Africa in terms of copper ore exports accounted for R463M while imports accounted for R6.08k, resulting in a positive trade balance of just under R463. The key export markets are China, Cambodia, Hong Kong, Netherlands, and the United Kingdom.

4.3.2. Mineral Sands, Zircon, Rutile, Garnet and Ilmenite

Other commodities to be exported include mineral sands, zircon, rutile, garnet, and ilmenite, all of which will be received from mines who export through the Port of Saldanha.

4.4. Logistics Hub (Phase 2) Process

The proposed Saldanha Bay Logistics Bub (Phase 2) is to receive commodities via rail and truck. Regarding the Manganese Ore delivered via rail the following process will occur (WSP in Africa via Air Quality Specialist, 2023):

[1] October statistics are not available for lead ore and concentrates.

- Delivery from rail to the existing rotary tippler, contained within a building with dust extraction and sprayers delivering chemical suppressant to the iron ore while being tipped from the rail wagons.
- Manganese ore will move from the rotary tippler along conveyor CV111 (underground conveyor) to Transfer Station 1 (TS1), contained within a building enclosure.
- From TS1 the ore will be transferred to a new conveyor, which is an above-ground conveyor, semi-enclosed equipped with longitudinal water sprayers.
- From the new conveyor, ore will be loaded onto the main Mn ore stockpile, within the warehouse.

Regarding bulk commodities delivered via truck the following process will occur (WSP in Africa via Air Quality Specialist, 2023):

- Trucks will enter the Saldanha Steel site via the truck entrance road located southeast of the site, via the weighbridge. It is noted, prior to reaching the weighbridge, approximately 1 km of road is being paved as part of the project. From the weighbridge, onto the Saldanha site, the proposed entrance road is unpaved, which will also receive chemical suppressant.
- Trucks will carry approximately 34 t of commodities per load, covered by the standard strapped tarpaulins required for side tippler road trucks.
- Trucks will unload in the southern end of the warehouse to a truck stockpile.
- Yellow equipment (front-end loaders) will be used to transfer material from the truck stockpile to the main commodity stockpiles for reclaiming.
- Trucks delivering commodities to the TPT terminal will carry approximately 69 t of commodities per load, comprising three skips covered by heavy duty, fixed tarpaulins.
- Trucks will exit the warehouse, and Saldanha Steel, via paved roads, making use of the existing paved haul road established for terminal access. Trucks exporting commodities to the terminal will not make use of public roads.
- The bulk of the trucks for commodities export to the terminal will remain onsite between deliveries, located at the designated truck staging area, avoiding unnecessary use of public roads.
- The bulk of the trucks for bulk material to the terminal will remain onsite between deliveries, located at the designated truck staging area, avoiding unnecessary use of public roads.

Section Five: Status Quo

5.1. Introduction

The economic and socio-demographic profile provides an understanding of the trends, issues, and dynamics of the local economy in terms of its micro and macro context.

5.2. Study Area Delineation

The proposed Saldanha Bay Logistics Hub (Phase 2) will be located at the current AMSA Saldanha Works Facility, specifically, the Remainder of Farm 1132 on the border of the Port of Saldanha, within the Saldanha Bay Local Municipality in the West Coast District Municipality. The identified areas that will be discussed in the following sub-sections include Saldanha, Saldanha Bay Local Municipality, West Coast District, and the Northern Cape. The Northern Cape is discussed due to the proposed Saldanha Bay Logistics Hub (Phase 2) potentially catering to mines located in the Northern Cape, this would have social and economic implications within the Northern Cape.

5.3. Social Context

5.3.1. Population and Households

The proposed Saldanha Bay Logistics Hub (Phase 2) is the Saldanha Bay Local Municipality which has approximately 127,888 residents and 36,505 households. The Northern Cape where the mines are located has approximately 1,313,214 residents and 342,695 households. In terms of the average household size, the Saldanha Bay Local Municipality has an average household size of 3.5 which is slightly lower than the West Coast District Municipality (3.7) and the Northern Cape (3.8). The table below provides an overview of the population and households in the Saldanha Bay Local Municipality, West Coast District Municipality, and the Northern Cape.

Table 5: Population and Households (2022)

Aspects	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
Population	*472,135*	*127,888*	*1,313,214*
Households	*126,744*	*36,505*	*342,695*
Ave Household size	*3.7*	*3.5*	*3.8*
Annual population growth rate	*1.9%*	*1.7%*	*1.2%*

(Urban-Econ Via Quantec (EasyData), 2023)

Implication: The proposed Saldanha Bay Logistics Hub (Phase 2) can cater to the growing population through the provision of employment opportunities within local communities and the broader West Coast District Municipality, as well as the Northern Cape.

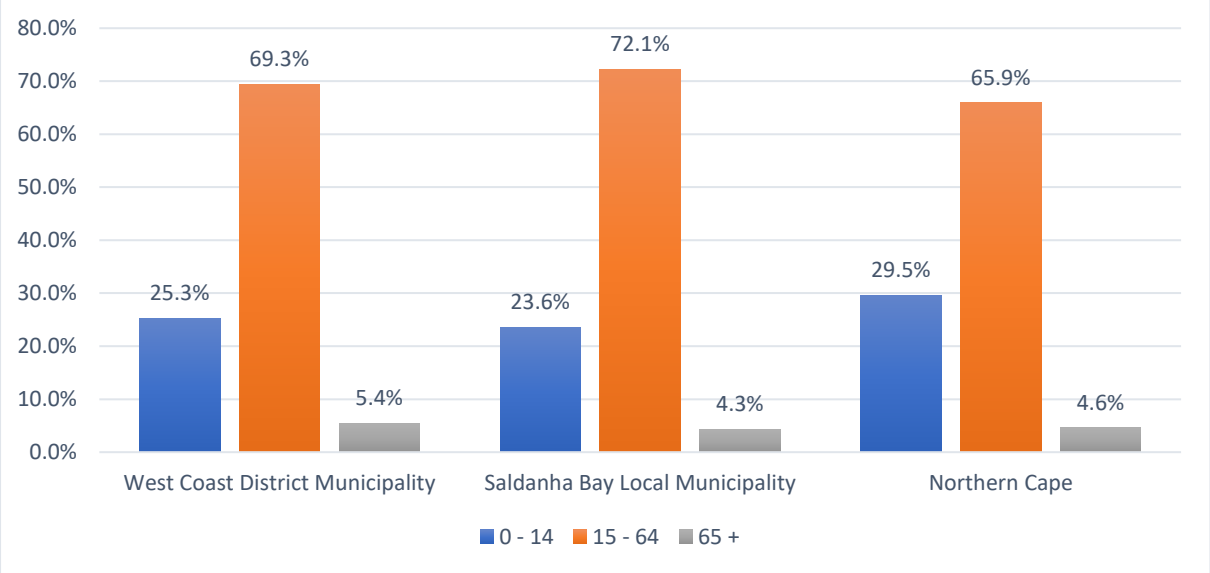
5.3.2. Age

Of the population in the Saldanha Bay Local Municipality, the potentially economically active population is 72.1 percent which is slightly higher than the West Coast District Municipality (69.3 percent) and the Northern Cape (65.9 percent). This portion of the population consists of people between the ages of 15 and 64 years. The potentially economically active population indicates that an above-average labour force exists which could indicate a large demand for jobs. The remainder of the population within the West Coast District Municipality, West Coast District Municipality, and the Northern Cape, comprises children[2] (25.3 percent, 23.6 percent, and 29.5 percent, respectively) and people older than 65 (5.4 percent, 4.3 percent, and 4.6 percent, respectively); thus, there is a larger **dependency ratio**.

The dependency ratio relates the number of children and people older than 65 to the working-age population[3] and is expressed as per hundred persons aged 15 to 64.

A visual Illustration of the age profile in the West Coast District Municipality, Saldanha Bay Local Municipality, and the Northern Cape is indicated in **Figure 2**.

Figure 2: Age (2022)



(Urban-Econ Via Quantec (EasyData), 2023)

<u>Implication</u>: The high percentage of the Potentially Economic Active Population provides an above-average labour force that could be employed during both the construction and operation phases of the proposed Saldanha Bay Logistics Hub (Phase 2). Additionally, the enabling of improved storage of commodities, could directly result in mines in the Northern Cape expanding on their operations, which in turn could utilise the local labour force within their respective municipal areas. Considering the importance of the utilisation of local labour, it is important to implement mitigation measures that would enable local procurement of labour and resources.

[2] People younger than 14.
[3] People between the ages of 15 and 64.

5.3.3. Education

In terms of the level of education, the majority of people in the Saldanha Bay Local Municipality only have some secondary education[4] (31.0 percent) followed by Grade 12 (23.0 percent). The population with some secondary education in West Coast District Municipality and the Northern Cape is 27.5 percent and 27.6 percent, respectively, while the population with grade 12 is 18.4 percent and 16.5 percent, respectively. Importantly, a significant portion of the population in the West Coast District Municipality, Saldanha Bay Local Municipality and the Northern Cape have limited schooling ranging from no schooling to completed primary school, 38.6 percent, 30.1 percent, and 40.6 percent, respectively. An overview of the education profile for the West Coast District Municipality, Saldanha Bay Local Municipality, and the Northern cape is indicated in **Table 6**.

Table 6: Education (2022)

Aspects	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
No Schooling	14,1%	9,7%	17,7%
Some Primary Education	18,4%	15,2%	18,5%
Completed Primary	6,1%	5,2%	4,4%
Some High School	27,5%	31,0%	27,6%
Grade 12	18,4%	23,0%	16,5%
Higher	5,7%	6,9%	5,7%
Other	9,8%	9,1%	9,6%

(Urban-Econ Via Quantec (EasyData), 2023)

<u>Implication</u>: Lower levels of education could lead to lower levels of income and standard of living. The proposed Saldanha Bay Logistics Hub (Phase 2) has the capability to assist in improving local income levels and standard of living through the provision of employment opportunities during both the construction and operational phase; additionally, mines who hire additional employees due to potential increased production would result in improved local income levels and standard of living. However, it is important to follow mitigation measures that would enable local procurement of labour and resources. Importantly, knowledge sharing and, on the job, training should be viewed as a prerequisite, where feasible, for all service contractors/service providers working on the developments and employing local labour. This will assist in improving upon skill levels which would assist the employees in attaining employment in similar projects.

5.3.4. Employment

It is estimated that 53.6 percent of the working-age population in the Saldanha Local Municipality are employed, while 15.4 percent are unemployed, and 31.0 percent are not economically active or discouraged work-seekers. The Saldanha Local Municipality has a higher proportion of people within the working-age

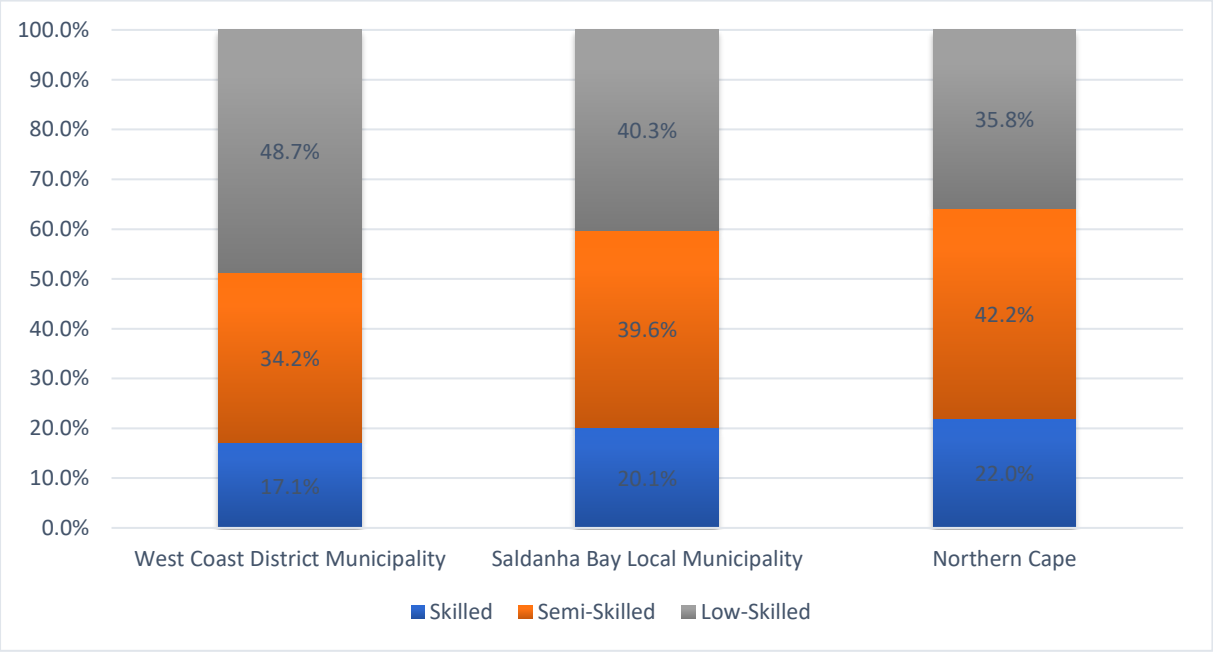
[4] Some secondary education includes Grades 8 to 11.

population who are unemployed, compared to the broader West Coast District Municipality (9.4 percent) and the Northern Cape (16.6 percent). Considering the unemployment rate, the Saldanha Local Municipality (22.3 percent) is higher than the West Coast District Municipality (15.4 percent) and lower than the Northern Cape (30.8 percent).

In terms skills, it is estimated that most workers within the Saldanha Bay Local Municipality are low-skilled (40.3 percent) which is followed by semi-skilled (39.6 percent) and high skilled (20.1 percent). The level skills in the Saldanha Local Municipality aligns with the West Coast District Municipality where the majority of the population are low-skilled (48.7 percent), semi-skilled (34.2 percent) and high skilled (17.1 percent). The Northern Cape, however, has a population where the majority are semi-skilled (42.2 percent), which is followed by low-skilled (35.8 percent) and high-skilled (22.0 percent).

A visual illustration of the skills level in the West Coast District Municipality, the Saldanha Bay Local Municipality, and the Northern cape is provided in the figure below.

Figure 3: Skills Level (2022)



(Urban-Econ Via Quantec (EasyData), 2023)

The closure of Saldanha Steel resulted in a significant number of job losses which resulted in a negative impact on the local economy. The hardest hit by the closure would be the unskilled to semi-skilled workers, who in turn would have a reduced standard of living through a lack of income. This in turn would have resulted in a loss of revenue for the local municipality with an increased demand for basic services (Saldanha Bay Industrial Development Zone, 2022).

Considering, the level of employees retrenched who previously worked on the Saldanha Works site, it is stated within the proposal for the Saldanha Logistics Hub, that consideration should be given to employees previously employed who operated infrastructure and assets. This is due to previous

employees having prior knowledge of assets and equipment.

Implication: The proposed Saldanha Bay Logistics Hub (Phase 2) is aligned with the national policy objectives as they will be contributing to the creation of employment during the construction and operation phase. During the construction phase, this would occur through direct job creation opportunities related to the construction of the proposed Saldanha Bay Logistics Hub (Phase 2) and indirectly through expenditure on sectors supplying goods and services. While during the operational phase this would result due to operational expenditure on the proposed Saldanha Bay Logistics Hub (Phase 2). The provision of employment opportunities would improve the income levels of the employees thus, in turn, improving their standard of living. Should the proposed Saldanha Bay Logistics Hub (Phase 2) re-employ prior employees who have knowledge of the assets and equipment, this would result in a positive impact on the local unemployment levels. Additionally, considering the proposed Logistics Hub (Phase 2) would result in improved storage capacity of commodities; this in turn would potentially result in mines who transport their commodities to the Port of Saldanha, to expand upon their mining operations. Expansion of their mining operations would result in additional employees being required thus improving upon levels of unemployment in the Northern Cape. Furthermore, commodities transported and exported through other ports may now be redirected to the Port of Saldanha for storage for potential export. Thus, in turn creating further employment opportunities.

5.3.5. Household Income

It is estimated that the majority of the population within the Saldanha Bay Local Municipality are low-income earners (48.6 percent) which is followed by middle-income earners (43.3 percent) and high-income earners (8.1 percent). When compared to the West Coast District Municipality and the Northern Cape, they are both predominantly low-income earners (51.4 percent and 62.4 percent respectively), followed by middle income earners (41.8 percent and 32.4 percent respectively) and high-income earners (6.8 percent and 5.2 percent respectively). An overview of the income profile for the West Coast District Municipality, the Saldanha Bay Local Municipality, and the Northern Cape is indicated in **Table 7**.

Table 7: Income Profile (2022)

	Income Brackets	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
Low Income	No income	10,7%	14,1%	12,0%
	R1 - R8 997	1,8%	2,3%	3,6%
	R8 998 - R17 994	3,1%	3,9%	6,2%
	R17 995 - R35 989	14,0%	10,9%	19,4%
	R35 990 - R71 977	21,8%	17,4%	21,2%
Medium income	R71 978 - R143 955	19,2%	16,6%	14,6%
	R143 956 - R287 909	13,2%	15,2%	10,5%

	Income Brackets	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
	R287 910 - R575 819	9,4%	11,5%	7,3%
High income	**R575 820 - R1 151 638**	4,9%	5,7%	3,7%
	R1 151 639 - R2 303 275	1,3%	1,7%	1,0%
	R2 303 276 - R4 606 550	0,4%	0,5%	0,3%
	R4 606 551 or more	0,3%	0,3%	0,2%

(Urban-Econ Via Quantec (EasyData), 2023)

Table 8 shows a summary of the household income of the above-mentioned areas.

Table 8: Summary of Annual Household Income (2022)

Income Category	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
Low Income (R0- R71 977)	51,4%	48,6%	62,4%
Medium Income (R71 978 – R575 819)	41,8%	43,3%	32,4%
High Income (R575 820 – R4 606 551 plus)	6,8%	8,1%	5,2%

(Urban-Econ Via Quantec (EasyData), 2023)

Implication: The above table is indicative of a need for education and training programmes (to obtain better skills for better job opportunities). The proposed logistics hub (Phase 2) would be able to offer job opportunities during both the construction and operation phase, and these opportunities would provide the means to improve the levels of low income. The improved levels of income would assist in improving the employees' standard of living. Although limited, skills development could occur in the construction phase through the transfer of construction-related skills. This in turn would increase the employability of the local labour and their chances of finding employment opportunities on other construction-related projects once their contract with the proposed development has expired. As previously indicated, should the proposed Saldanha Bay Logistics Hub (Phase 2) re-employ employees who were retrenched, this would result in an improved level of household income and standard of living. The potential creation of additional jobs in the Northern Cape, as mentioned prior, would result in improved levels of income and in turn their standard of living.

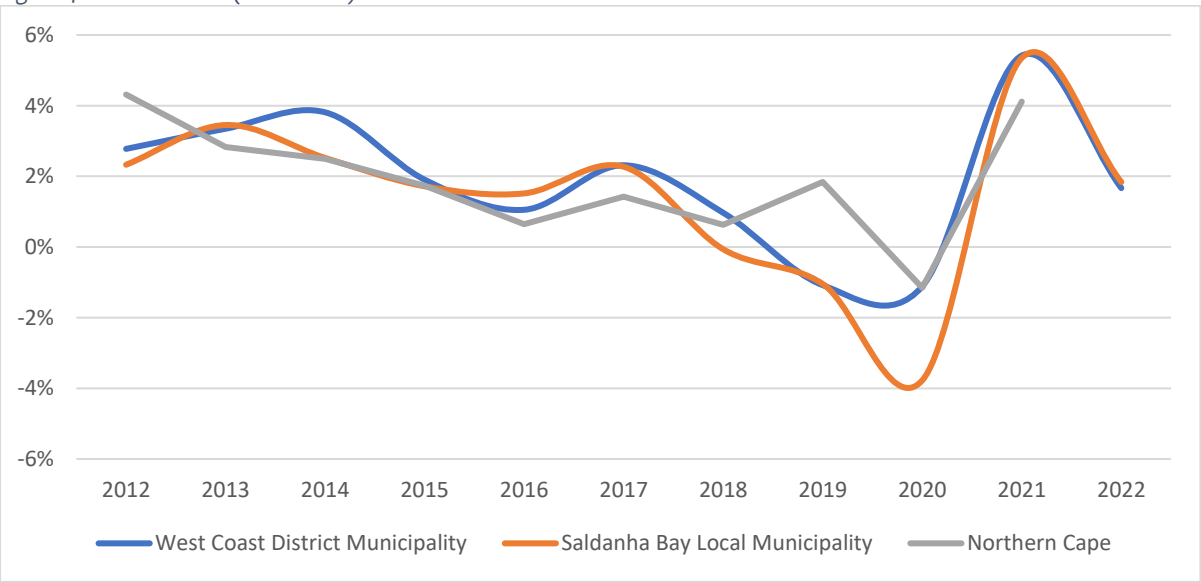
5.4. Economic Context

5.4.1. GDP-R Growth

Interpretation of economic impacts requires a sound understanding of the size of the economy and its dynamics in the past. Several indicators exist that can describe the economy of a region or an area. The most common variables that are used for the analysis include production and Gross Domestic Product per

Region (GDP-R) or Gross Value Added (GVA). The former represents the total value of sales of goods and services, or the turnover of all economic agents in a region; while the latter, using the output approach, means the sum of value added created by all residents within a certain period, which is typically a year. The trend at which the GDP-R has been changing in the past is also referred to as an economic growth indicator. It is a measure of both the performance of an area and the well-being of the citizens of an area. The figure below provides a visual illustration of the GDP-R growth for the West Coast District Municipality, the Saldanha Bay Local Municipality, and the Northern Cape.

Figure 4: GDP-R Growth (2012 – 2022)



(Urban-Econ Via Quantec (EasyData), 2023)

The figure above indicates the Saldanha Bay Local Municipality has an average growth rate of 1.5 percent between 2012 and 2022. This is lower than the growth rate observed for the West Coast District Municipality and the Northern Cape which respectively had a growth rate of 1.9 percent. The historical trends indicate a positive economic growth between 2011 and 2016. However, a sharp decline in economic growth between 2017 and 2019 was experienced with factors that may have contributed to the decline in economic performance being attributed to load shedding and the drought within the Western Cape. In 2019, the overall economy experienced a shrink as a result of the COVID-19 pandemic which negatively impacted economic activity. In 2021, the economy continued to recover much to the ease of the COVID-19 lockdown and restrictions.

<u>Implication</u>: The proposed Logistics Hub (Phase 2) will contribute to both local and national Gross Domestic Product during the construction and operation phase of the development. Contribution to the Gross Domestic Product during the construction phase because of increased investment, while contribution during the operational phase would result from the operational expenditure. This would result in an improved GDP contribution within the Saldanha Bay Local Municipality, especially considering the loss of GDP that resulted in the closure of the Saldanha Bay Steel Works that occurred in 2020. Additionally, the resultant improved exports through the Port of Saldanha would result in economic

contribution (GDP) within the Saldanha Bay Local Municipality. Furthermore, the potential expansion of mining operations which may result due to improved storage capacity of commodities at the Port of Saldanha, would in turn enable an improved level of GDP contribution and growth within the Northern Cape.

5.4.2. GDP-R per Economic Sector

The top contributing sectors in West Coast District Municipality and the Saldanha Bay Local Municipality is manufacturing (30.6 percent and 29.8 percent respectively), while in the Northern Cape it was mining and quarrying (28.3 percent). This was followed by agriculture, in all three areas, with contributions in the West Coast District Municipality being 26.1 percent, 23.4 percent in the Saldanha Bay Local Municipality, and 14.3 percent in the Northern Cape. The table below highlights the economic profile of the West Coast District Municipality, Saldanha Bay Local Municipality and the Northern Cape.

Table 9: Economic Profile (2022)

Sector	West Coast District Municipality	Saldanha Bay Local Municipality	Northern Cape
Agriculture, forestry, and fishing	26,1%	23,4%	14,3%
Mining and quarrying	2,5%	1,0%	28,3%
Manufacturing	29,8%	30,6%	5,0%
Electricity, gas, and water	1,4%	1,0%	3,5%
Construction	3,6%	3,6%	2,5%
Wholesale and retail trade, catering and accommodation	9,8%	9,6%	8,5%
Transport, storage, and communication	5,5%	5,9%	10,8%
Finance, insurance, real estate, and business services	10,0%	13,1%	12,2%
General government	6,1%	6,0%	5,4%
Community, social and personal services	5,3%	5,6%	9,5%
Total GVA (million)	**R104,671**	**R31,366**	**R298,650**

(Urban-Econ Via Quantec (EasyData), 2023)

Economically, in 2022, the West Coast District Municipality, the Saldanha Bay Local Municipality, and the Northern Cape demonstrated a gross value-added output of R104,671 million, R31,366 million, and R298,650 million respectively.

Implication: During the construction phase, the proposed logistics hub (Phase 2) will have the largest economic impact in the following sectors:

- **Manufacturing**
- **Building and construction**
- **Electricity, gas, and water**
- **Real estate and business services**
- **General government and community services.**

While in the operational phase will have the largest economic impacts will be in the following sectors:

- **Manufacturing.**
- **Trade and accommodation.**
- **Transport and storage.**
- **Real estate and business services.**

5.4.3. Saldanha Bay Trade Profile

The Port of Saldanha is South Africa's deepest port and largest natural anchorage. The priority of the Port of Saldanha is predominantly the export of iron ore, with other exports such as but not limited to manganese, zinc, slag, aluminium, lead, natural garnet, pumice stone, natural sands, quartz, etc. Other mined commodities such as phosphate concentrates, zircon sands, and copper concentrates envisioned to be warehoused in the proposed logistics hub (Phase 2) are not currently exported through the Port of Saldanha. Importantly, the trade balance of the Saldanha Bay Local Municipality remained positive between 2018 and 2022, reaching a surplus of R2.8 billion in 2022. Overall, the economic contribution of exports for the Saldanha Bay Local Municipality amounted to approximately, R4.3 billion while imports amount to R1.5 billion.

The top three exports and imports for the Saldanha Bay Local Municipality are indicated in the table below.

Table 10: Top Exports and Imports

Top Three Exports	R-Value	Top Three Imports	R-Value
Flat-rolled products of iron or non-alloy steel, clad, platted or coated	R3,898.6 million	**Flat-rolled products or iron or non-alloy steel, clad, not plated or coated**	R648.4 million
Flat-rolled products of iron or non-alloy steel, cold-rolled	R107.1 million	**Unwrought zinc**	542.0 million

Ferrous waste and scrap	R88.6 million	**Flat-rolled products of other alloy steel**	R100.7 million

(Urban-Econ Via Quantec (EasyData), 2023)

As per the Saldanha Bay Local Municipality Integrated Development Plan 2022 – 2027, the Port of Saldanha is a point of export for manganese, as such, the concentrations of manganese in the air are being monitored. Importantly, as mentioned prior, the West Coast District Municipality stated that storage of commodities identified for the proposed logistics hub (Phase 2) could not occur unless adequate storage facilities, i.e., warehousing was constructed. Furthermore, the construction and operation of the warehouse would enable the export of the envisioned commodities, such as manganese ore, phosphate concentrates, zircon, etc.

Implication: The proposed Logistics Hub (Phase 2) would enable improved exports through the Port of Saldanha, which in turn, would result in an improved trade balance for the Saldanha Bay Local Municipality. This would result in improved economic strength, through boosting domestic production, job creation, and increased revenue from export sales.

5.5. Alignment of the Proposed Development

Through the capital and operational investment into the proposed logistics hub (Phase 2), the proposed development can contribute both on an individual and cumulative basis to the alleviation of local unemployment as well as assist in providing an improved standard of living through income generation. This would especially have a positive economic impact if employees who previously were retrenched (closure of Saldanha Steel Work) were re-employed.

The provision of additional production and gross domestic product within the local economy will cumulatively assist in improving upon the downward economic growth currently being experienced within the local municipality.

Furthermore, the proposed logistics hub (Phase 2) through its operation would enable the improved storage of commodities which in turn would enable a positive economic contribution for the Saldanha Bay Local Municipality, as well as attract potential customers to the Port of Saldanha whom would directly and/ or indirectly make investments within the municipal area. While the proposed logistics hub (Phase 2) through its operation could potentially result in mines in the Northern Cape to expand upon their operations, in turn resulting in an improved level of economic growth through contribution to GDP, production, employment and household income.

Section Six: Economic Modelling

6.1. Introduction

The purpose of this section is to develop a better understanding of the potential economic impact of the proposed development in the study area. Economic impact refers to the effect on the level of economic activity in an area because of some form of external intervention in the economy. In the case of this study, the local impacts will be impacted on a regional level. These impacts are measured because of the capital investment in the proposed development. This analysis focuses on the changes that could be expected in the economy and community and can be estimated by using a technique called the Social Accounting Matrix (SAM) model (discussed below).

6.2. Understanding the Social Accounting Matrix Model

The Social Accounting Matrix modelling approach has proven to be an effective method for evaluating the implications of introducing an exogenous change to the economy. The modelling approach is recognised and is accepted nationally and internationally. A Social Accounting Matrix represents the flows of all economic transactions that take place within an economy. Social Accounting Matrix refers to a single year providing a static picture of the economy, based on national accounting statistics and input-output tables that are compiled and published by Statistics South Africa (Stats SA), using primarily South African Reserve Bank Accounts data. The model has been amended to include the local conditions.

The matrices can be derived from the model are used as instruments for economic analysis. The fundamental assumptions regarding the model and use of the model are:

- Production activities in the economy are grouped in homogeneous sectors.
- The mutual interdependence of sectors is expressed in meaningful input functions.
- Each sector's inputs are only a function of the specific sector's production.
- The production by different sectors is equal to the sum of the separate sectors of production.
- The technical coefficients remain constant for the period over which forecast the projections are made; and
- There will be no major change in technology.

It should also be noted that:

- All the Rand values in this report represent 2023 Rand values (cost excluding 15 percent VAT).
- The different measures of economic impact (jobs, Gross Domestic Product, and new business sales) cannot be added together and should be interpreted as separate economic impacts.
- The model quantifies direct and indirect economic impacts for a specific amount of time. Therefore, the estimates that are derived do not refer to gradual impacts over time.

Two types of economic impacts can be measured, namely, direct, and indirect impacts:

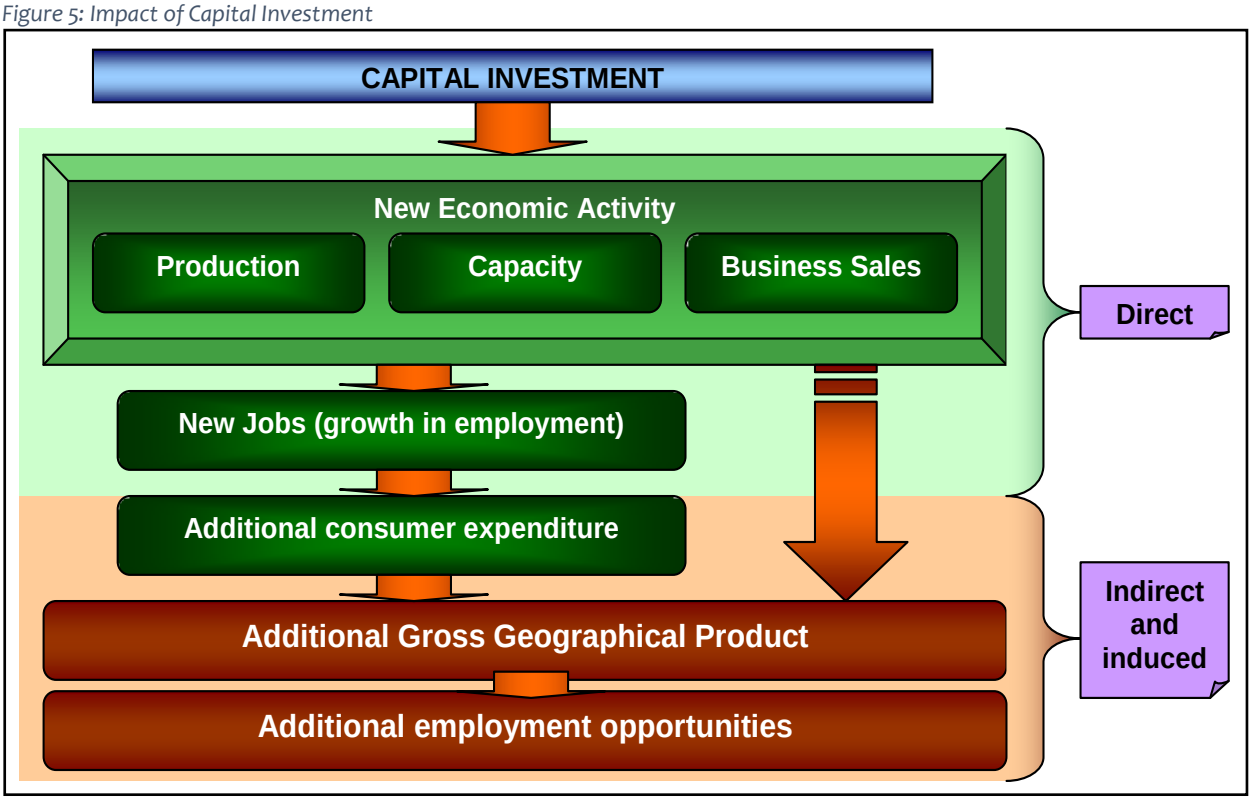
Direct Impacts – changes in local business activity occurring as a direct result or consequence of public or private sector capital expenditure. Direct economic effects are generated when the new business creates new jobs and purchases goods and services to operate the new facility. Direct impacts increase job creation, production, business sales, and household income.

The multiplicative effects can be grouped into two distinct effects, namely:

- **Indirect Impacts** – occur when the suppliers of goods and services to the new business experience larger markets and potential to expand. Indirect impacts increase job creation, GDP, and household income.
- **Induced Impacts** – represent further shifts in spending on food, clothing, shelter and other consumer goods and services because of the change in workers and payroll of directly and indirectly affected businesses. This leads to further business growth/decline throughout the local economy. Examples include the income of employees and shareholders of the project as well as the income arising through the backward linkages of this spending in the economy. The impact is sometimes confused with the forward linkages of a project.

Figure 5 indicates direct, indirect, and induced impacts in detail.

Figure 5: Impact of Capital Investment



Economic impacts can also be viewed in terms of their duration, or the stage of the life cycle in which the development takes place, (1) the construction phase (CAPEX), (2) the operational phase (OPEX).

Due to the duration of these phases, the impacts are separated into those observed during the construction phase and those experienced during the operational phase. The construction phase economic

impacts are temporary and therefore have a temporary effect. On the other hand, the operational phase of the proposed project would last decades; hence the impacts during this stage would be of a sustainable nature. The economic impacts during construction and operational phases can be viewed in terms of a change in the following:

- Job creation – the number of additional jobs created by economic growth. This includes jobs in planning and constructing the facility and sustainable jobs at the facility once it is operational. Indirect and induced job creation will also occur because of direct job and income creation.
- GDP – the value of all final goods and products produced during a one-year period within the boundaries of a specific area, as a direct, indirect, and induced result of activities for/at the precinct during planning, construction, and operation.
- Business output (or sales volume) – the value of all inter- and intra-sectoral business sales generated in the economy because of the planning, construction, and operation of the development.

Any of these measures can be an indicator of improvement in the economic well-being of residents, which is generally the goal of any investment project. The net economic impact is usually viewed as the expansion or contraction of an area's economy, resulting from the induced changes. The precise quantum of these impacts will be influenced by changes in the project (such as precise land-use mix, technologies employed, imported versus local goods and services, timing, and funding options, amongst others) and changes in the project environment (such as property market cycles, interest rates, legislation, the structure of the economic sectors primarily influencing and affected by the development and the labour market, amongst others). **Table 11** below provides an overview of the impact modelled for the CAPEX (Capital Expenditure).

Table 11: Impacts Modelled: CAPEX

Capital Expenditure	
Additional new business sales (Additional production/output generated by development)	The construction work on the infrastructure and warehouse will lead to the expansion of business sales for existing businesses located within the economy. These changes are measured in terms of new business sales, i.e., new sales that will be generated in the economy as a direct result of the capital investment in the development project.
Additional GDP	One of the most important indicators used to indicate economic growth and value is the GDP. The GDP measures the value of all final goods and services produced/provided within one year of the area's economy.
Additional Employment	Construction activities will result in direct jobs being created on site and other directly related sectors such as the transport and manufacturing sectors. Indirect jobs are also created due to the multiplier effect on the economy. For example, an additional number

Capital Expenditure	
	could lead to an increased number of jobs being created in these businesses, i.e., to increase the output of these businesses.
Additional Household Income	Employment positions during construction will generate revenue for the affected households through direct, indirect, and induced effects. This will include payments in the form of salaries and wages to those individuals directly employed during the construction phase. Households' earnings will be generated through indirect and induced effects resulting from project expenditure. Although temporary, this increase in household earnings will have a positive effect on the standard of living in these households.

Table 12 below provides an overview of the impacts modelled for OPEX (Operational Expenditure).

Table 12: Impacts Modelled (OPEX)

Operational Expenditure	
Additional new business sales (Additional production/output generated by the development)	The increased need for goods and services, because of the construction of infrastructure/ facilities and the operation of different activities within the proposed development.
Additional GDP	The generation of additional business sales and employment opportunities will initiate an on-going ripple effect through the sub-region, resulting in an increase in product and service value (measured in GDP).
Additional employment	Because of the new activities on the site, it can be estimated that the study area will be able to eventually sustain a substantial number of new employment opportunities.
Additional Household Income	Employment positions will generate personal income (2023 prices), which will be sustained for the entire duration of the project's lifespan. The sustainable income generated as a result of the project's operation will positively affect the standard of living of all benefitting households.

6.3. Assumptions

The CAPEX and OPEX for each of the alternatives would not differ as such the CAPEX and OPEX modelling would be applicable to both alternatives. The following CAPEX (**Table 13**) and OPEX (

Table 14) assumptions were made regarding the proposed development.

Table 13: Capital Expenditure Assumptions

Aspect	Short Term Investment
	Phase 2
Property, Plant, and Equipment	**R108 413 800**
Infrastructure and Services	**R150 745 000**
Instruments and Services	**R500 000**
Professional Fees	**R420 000**
Total	**R260 078 800**

Table 14: OPEX Assumptions

Employment	Phase 2
Management	5
Operations	105
Maintenance	22
Finance and Support	7
Total	**139**
Total Expenditure over 10 Years	2,363,4 million

6.4. Capital Expenditure

This section discusses the potential economic impact of the construction phase of the proposed development. It must be noted that these impacts are temporary, considering that they are only apparent during the implementation process. This phase will utilise a combination of both intensive labour and machinery to construct the development. **Table 15** depicts the results of the impact modelling for the duration of the construction phase.

Table 15: Impact During Construction Phase[5]

Impact	Direct (Construction)	Indirect (Suppliers)	Induced (Salaries and Wages)	Total
Production (@ 2023 R-value)	R260,1 million	R218,2 million	R151,5 million	R629,7 million
GDP (@2023 R-value)	R92,5 million	R87,4 million	R61,1 million	R241,0 million
Jobs	89	339	197	626
Household Income (@2023 R-value)	R48,1 million	R37,3 million	R24,6 million	R110,0 million

[5] Please see Table 11 in subsection 6.2 for explanations of production, GDP, employment, and household income

As the table shows, the construction of the proposed development will generate approximately R629,7 million in production or in other words new business sales. Approximately R260,1 million will be created through direct effects and R218,2 million through indirect effects. Secondly, this increase in output will induce a further impact on the gross value added in the country, which is found at R241,0 million from the proposed development, the model suggests that 626 direct, indirect, and induced employment opportunities will be created during construction, which will increase household incomes by R111.0 million.

Table 16 shows the total impact on each sector during the construction phase.

Table 16: Impacts During Construction Phase on Sectors

Sector	Total Impact on Production	Total Impact on GDP	Total Impact on Employment	Total Impact on Household Income
Agriculture	1,4%	1,6%	3,7%	1,0%
Mining	0,1%	0,2%	0,1%	0,1%
Manufacturing	16,1%	11,4%	15,4%	11,4%
Electricity	0,7%	0,9%	0,6%	0,7%
Water	0,3%	0,3%	0,0%	0,2%
Building and Construction	32,1%	18,9%	29,9%	24,1%
Trade and accommodation	23,4%	31,8%	14,4%	33,7%
Transport and storage	6,7%	7,5%	4,1%	6,1%
Financing	3,0%	5,6%	1,7%	4,2%
Real estate and business services	12,5%	15,8%	14,6%	11,8%
Government services	3,6%	6,0%	15,6%	6,6%

The SAM model suggests that the following sectors will experience the greatest positive impact from the construction of the proposed development.

- Manufacturing.

- Building and construction.
- Trade and accommodation.
- Real estate and business services.
- Government services.

6.5. Operational Expenditure

Once the construction of the proposed development is complete further impact on the economy and community will be created through operational functions. Similarly, to the construction phase, the impact of the development is assessed by considering the change in new business sales, Gross Domestic Product and employment opportunities created.

Table 17 shows the results of the impact modelling exercise for the operational period per annum.

Table 17: Impact During the Operational Phase[6]

Impact	Direct (Operation)	Indirect (Suppliers)	Induced (Salaries and Wages)	Total
Production (@2023 R-value)	R179,8 million	R118,8 million	R96,2 million	R394,9 million
GDP (@2023 R-value)	R75,8 million	R46,1 million	R38,9 million	R160,8 million
Jobs	139	114	138	391
Household Income (@2023 R-value)	R42,0 million	R17.1 million	R17.2 million	R76.3 million

The results show that R394,9 million will be generated from new business sales, with R179,8 million generated as a direct impact and R118,8 million as an indirect impact per annum. The increase in production output will result in an increase in Gross Domestic Product in the country to the value of R160,8 million per annum. The addition will furthermore create 391 employment opportunities during operations and an R76.3 million increases in household incomes per annum.

Potential employment opportunities that could be created during the construction phase and operational phase are indicated in

[6] Please see Table 11 in subsection 6.2 for explanations of production, GDP, employment, and household income

Table 18**.**

Table 18: Construction and Operational Employment Opportunities[7]

Construction Phase	
Site agents.	**Supervisor.**
Safety officers.	**Artisans.**
Quality assurance.	**Semi-skilled Labour.**
Admin clerk.	**General Labour.**
Storeman.	
Operation Phase	
Operations Team	
Operations manager.	**Weighbridge clerks.**
Shift superintendent.	**Tally clerks.**
Excavator.	**Tippler operator.**
Payloader.	**Locomotive driver.**
Mobile conveyor.	**Shunters.**
ADT driver.	**Watercart drivers.**
Staff bus drivers.	
Maintenance Team	
Maintenance foreman	**Services foreman**
Mechanical foreman	**Services artisan**
Mechanical artisans	**Boilermaker**
Electrical foreman	**Apprentices**
Electrical artisans	
Finance, Administration and Support	
HR/ Payroll Administrator	**SHERQ controller**
Finance clerk	**Laundry/ cleaners**
Receptionist/ administration	

(ArcelorMittal South Africa, 2020)

Table 19 depicts the results of the modelling per economic sector during the operational phase of the development.

[7] **Disclaimer: These are potential employment opportunities that may be created during the construction and operation. This could change and must not be seen by the reader as definitive.**

Table 19: Impacts During Operational Phase Per Sector

Sector	Total Impact on Production	Total Impact on GDP	Total Impact on Employment	Total Impact on Household Income
Agriculture	1,5%	1,5%	4,3%	1,2%
Mining	0,2%	0,3%	0,3%	0,3%
Manufacturing	17,8%	10,8%	11,4%	12,5%
Electricity	0,9%	1,1%	0,9%	1,1%
Water	0,4%	0,3%	0,0%	0,3%
Building and Construction	2,3%	1,3%	4,7%	1,9%
Trade and accommodation	6,2%	7,4%	18,4%	8,9%
Transport and storage	51,1%	53,0%	31,7%	51,3%
Financing	3,2%	5,7%	2,0%	4,9%
Real estate and business services	13,7%	14,3%	13,1%	12,4%
Government services	2,7%	4,2%	13,2%	5,4%

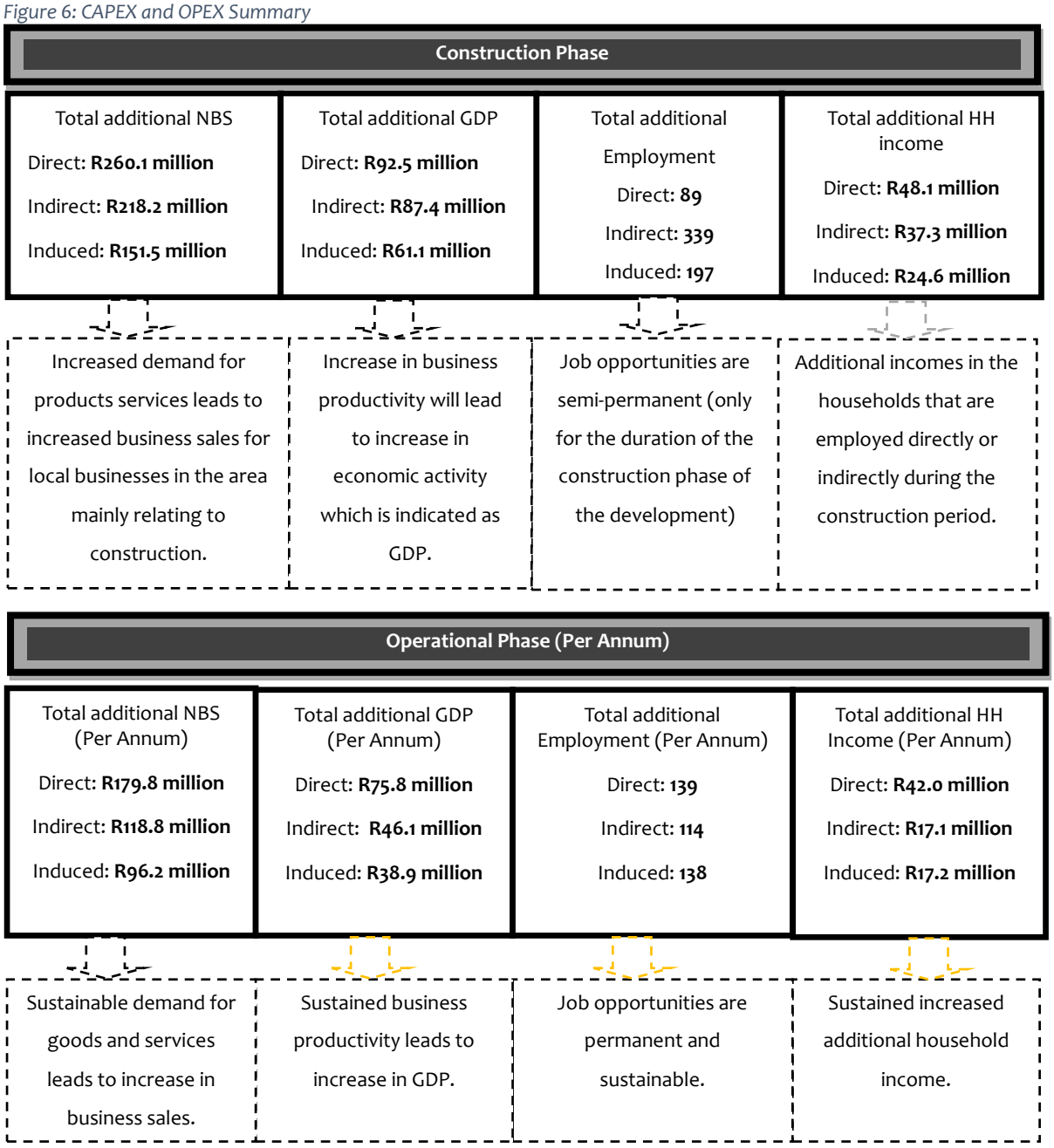
The SAM model suggests that the following sectors will experience the greatest positive impact from the operating of the proposed development:

- Manufacturing.
- Trade and accommodation.
- Transport and storage.
- Real estate and business services.

6.6. Conclusion

Figure 6 provides a visual illustration of the CAPEX and OPEX for the proposed logistics hub (Phase 2) for both the preferred alternative (Option 1) and alternative 1 (Option 2). ***The below results are based on the estimated capital and operational expenditure provide in Table 13 and 14. The results may fluctuate if assumptions utilised either increase or decrease.***

Figure 6: CAPEX and OPEX Summary



Section Seven: Specialist Impact Assessment

7.1. Introduction

This chapter of the report seeks to describe and assess the economic impacts that are expected to occur as a result of the construction and operation of the proposed logistics hub (Phase 2) for both the preferred alternative (Option 1) and alternative 1 (Option 2)

7.2. Methodology

The methodology utilised to assess the identified impacts are indicated in the table below.

Table 20: Methodology

Criteria	Number of Points to Score				
	Score 1	**Score 2**	**Score 3**	**Score 4**	**Score 5**
Impact Magnitude (M)	Very low	Low	Medium	High	Very high
Impact Extent (E)	Site only	Local	Regional	National	International
Impact Reversibility (R)	Reversible		Recoverable		Irreversible
Impact Duration (D)	Immediate	Short Term	Medium term	Long term	Permanent
Probability of Occurrence (P)	Improbable	Low	Medium	High	Definite
Based on impact significance criteria determined by DEAT, 1998					
CRITERIA	**SCORE 1**	**SCORE 2**	**SCORE 3**	**SCORE 4**	**SCORE 5**
Impact Magnitude (M)					
The degree of alteration of the affected environmental receptor	**Very low**	**Low**	**Medium**	**High**	**Very high**
Impact Extent (E)	**Site:**	**Local:**	**Regional:**	**National:**	
The geographical extent of the impact on a given environmental receptor	Site only	Inside	Outside	National scope or level	**International:** Across borders or boundaries
		activity area	activity area		

Impact Reversibility (R)	**Reversible:**		**Recoverable:**		**Irreversible:**
The ability of the environmental receptor to rehabilitate	Recovery without rehabilitation		Recovery with rehabilitation		Not possible despite action
or restore after the activity has caused environmental change					
Impact Duration (D)	**Immediate:**	**Short term:**	**Medium term:**	**Long term:**	**Permanent:**
The length of permanence of the impact on the environmental receptor	On impact	0-5 years	5-15 years	Project life	Indefinite
Probability of Occurrence (P)					
The likelihood of an impact occurring in the absence of pertinent environmental management measures or mitigation	**Improbable**	**Low Probability**	**Probable**	**Highly Probably**	**Definite**
ENVIRONMENTAL SIGNIFICANCE = (MAGNITUDE + EXTENT + REVERSIBILITY + DURATION) x PROBABILITY					
TOTAL SCORE	**4 to 15**	**16 to 30**	**31 to 60**	**61 to 80**	**81 to 100**
ENVIRONMENTAL SIGNIFICANCE RATING	**Very low**	**Low**	**Moderate**	**High**	**Very High**

7.3. Construction Related Impacts

Financial figures and totals provided regarding production, GDP, employment, and household income under the following impacts are derived from the assumptions provided in **Table 13** (pg. 45) which are then modelled according to a Social Accounting Matrix. The results of which are provided in **Figure 6** (pg. 50).

7.3.1. Temporary Impact on Production

Economic production is defined as any activity that uses inputs such as labour and capital to produce outputs in the form of services or goods. The construction phase of the proposed project will involve activities such as engineering and design, site and infrastructure development, construction of buildings and facilities, installation of machinery and equipment, civil engineering works, and other business activities related to the construction. The direct effect will be experienced in the building and construction sector, trade and accommodation sector, and real estate and business services sector.

The economic benefits of the investment into the project will spread throughout the provincial economy which will positively impact all economic sectors. The effect is categorised according to direct, indirect, and induced impacts, together forming the multiplier effect. These various impacts spread throughout the economy, contributing to heightened production levels.

The initial construction-related activities required for the proposed projects establishment will take place over one year. **The investment planned to be spent during this stage**, will increase the production output of the provincial economy by R629.69 million (2023 prices).

Approximately R218.16 million (2023 prices) of the production output generated, as a result of the construction activities, will be triggered by indirect effects of production-prompted effects, i.e., by companies that will be supplying inputs and services to the contractors and engineering firms operating on site. The indirect effects during the construction period will be distributed throughout the country depending on the location of the suppliers.

Preparations and construction activities will stimulate the creation of new temporary employment opportunities through both direct and indirect effects that will resultantly increase household income. This will in turn stimulate sales in a variety of sectors through an increased household's consumption. About R151.46 million (2023 prices) of the production output generated by the project will be as a result of consumption induced effects. The sectors benefitting the most from induced effects are the manufacturing sector, real estate and business services, and trade and accommodation. Although the majority of new business sales stimulated through consumption induced effects will be distributed throughout the country, a portion of it will be captured by the local economy. The table below highlights the impact on production during the construction phase.

Table 21: Temporary Impact on Production

Preferred Alternative (Option 1)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Production	- The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. - The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Construction	Positive	4	3	5	2	4	**56**	**P2**	4	3	5	2	4	**56**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**

Temporary Impact on Production	- The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. - The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Construction	Positive	4	3	5	2	4	**56**	**P2**	4	3	5	2	4	**56**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						

7.3.2. Temporary Impact on Gross Domestic Product

A country's Gross Domestic Product (GDP) is the total value of all "final" goods and services, which were produced within the borders of the country, in a period of a year. Most of the investment activities in the country are associated with a value-adding activity, which has a positive impact on the Gross Domestic Product per Region (GDP-R).

The proposed project will **generate a direct R92.5 million worth of growth**. Overall, the initial investment for the construction of the proposed project will inflate the South African GDP by R241.0 million. The indirect impact is projected to create R87.4 million in value added within the national economy. Sectors forecast to greatly benefit from the indirect impacts include manufacturing, real estate and business services, and transport and storage.

As encountered within production, the growth resulting from the production induced impact will cause employment numbers and the related salary costs to increase throughout the economy. The consequent consumer-induced effect will offer stimulus sector-wide; the induced impact is projected to create approximately R61.1 million in value added within the national economy. The real estate and business services sector will experience the greatest value added due to consumption stimulation.

The table below highlights the impact on gross domestic product during the construction phase.

Table 22: Temporary Impact on Gross Domestic Product

Preferred Alternative (Option 1)																
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Gross Domestic Product	- The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible,	Construction	Positive	3	3	5	2	4	52	P2	4	3	5	2	4	56	P2

	to maximise the benefits to the local economies. - The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.																
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Gross Domestic Product	- The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. - The developer should engage with local authorities and business organisations to investigate the	Construction	Positive	**3**	**3**	**5**	**2**	**4**	**52**	**P2**	**4**	**3**	**5**	**2**	**4**	**56**	**P2**

	possibility of procuring construction materials, goods and products from local suppliers were feasible.																
Significance				**P2 - Medium**							**P2 - Medium**						

7.3.3. Temporary Impact on Employment

Approximately 15.4 percent of people in the Saldanha Bay Local Municipality are unemployed. The proposed project is expected to create Full Time Equivalent employment positions over the course of the development. The proposed project is expected to create **89 Full Time Equivalent employment positions** on the site itself, however, employment positions will **involve unskilled and semi-skilled construction workers with the remaining being skilled managers, professional engineers, and supervisors**. If most of the local staff comes from the Saldanha Bay Local Municipality and/ or the West Coast District Municipality it will have a positive effect on local unemployment, especially, if local labour is utilised. Beyond the direct employment opportunities that will be created by the project during the construction phase, the project will also have a positive spin-off effect on the employment situation in other sectors of the economies. Approximately 339 Full Time Equivalent employment positions will be established through indirect impacts during the construction phase, while the rest (197 Full Time Equivalent employment positions) will be created through consumption induced impacts. Building and construction are expected to incur the highest increase in labour through indirect effects while general government and community services is expected to incur the highest increase in labour through induced effects.

The table below highlights the impact on employment during the construction phase.

Table 23: Temporary Impact on Employment

Preferred Alternative (Option 1)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary	- Employ labour-intensive methods in	Construction	Positive	3	3	5	2	4	52	P2	4	3	5	2	4	56	P2

Impact on Employment	construction where feasible. - Sub-contract to local construction companies particularly SMMEs and BBBEE compliant enterprises where possible - Use local suppliers where feasible and arrange with the local SMMEs to provide transport, catering, and other services to the construction crews.																
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Employment	- Employ labour-intensive methods in construction where feasible. - Sub-contract to local construction companies particularly SMMEs and BBBEE compliant enterprises where possible - Use local suppliers where feasible and arrange with the local SMMEs to	Construction	Positive	**3**	**3**	**5**	**2**	**4**	**52**	**P2**	**4**	**3**	**5**	**2**	**4**	**56**	**P2**

	provide transport, catering, and other services to the construction crews.																
Significance				**P2 - Medium**							**P2 - Medium**						

7.3.4. Temporary Impact on Household Income

Household earnings are closely associated with trends in employment and as such will be positively affected by the increase in Full Time Equivalent employment positions resulting from the investment into the mine's establishment, as discussed. The creation **of 626 direct, indirect, and induced Full Time Equivalent employment positions during the construction period** will temporarily increase affected households' income to the value of R110.0 million in 2023 prices. Approximately 43.7% of this will be earned by households whose members will be working at the project site itself. It is anticipated that most of this direct income earned by households will remain in the local municipality. Additionally, an improvement in the standard of living of the benefiting households will occur, albeit temporarily. Businesses supplying inputs to the project's establishment are expected to indirectly benefit and earn R37.3 million in household income (2023 prices). Due to increased household consumption induced through the creation of direct and indirect employment opportunities, an additional R24.6 million will be earned by households. Overall, trade and accommodation, building and construction, and the real estate and business services sector will have the greatest gains in household income.

The table below highlights the impact on household income during the construction phase.

Table 24: Temporary Impact on Household Income

Preferred Alternative (Option 1)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on	- Recruit local labour as far as feasible to increase the benefits to the local	Construction	Positive	3	3	5	2	4	**52**	**P2**	4	3	5	2	4	**56**	**P2**

Household Income	households. - Employ labour intensive methods in construction where feasible. - Sub-contract to local construction companies where possible. - Use local suppliers where feasible and arrange with local SMME's and BBBEE compliant enterprises to provide transport, catering, and other services to the construction crews.																
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Household Income	- Recruit local labour as far as feasible to increase the benefits to the local households. - Employ labour intensive methods in construction where feasible. - Sub-contract to local construction companies where possible.	Construction	Positive	3	3	5	2	4	**52**	**P2**	4	3	5	2	4	**56**	**P2**

	- Use local suppliers where feasible and arrange with local SMME's and BBBEE compliant enterprises to provide transport, catering, and other services to the construction crews.																
Significance				**P2 - Medium**							**P2 - Medium**						

7.3.5. Temporary Impact on Government Revenue

The construction phase of the proposed project will result, due to the capital expenditure on the project, in companies generating a revenue and employing people. From this, companies are obliged to pay the government income taxes and payroll taxes. Additionally, increased spending power will translate into more purchases, which would increase the Value Added Tax base for government. The various tax received by government improves government's ability to deliver services and an increase in national fiscus will prevail.

The table below highlights the impact on government revenue during the construction phase.

Table 25: Temporary Impact on Government Revenue

Preferred Alternative (Option 1)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Government Revenue	- Employment of suitably eligible RSA citizens or residents	Construction	Positive	3	3	5	2	4	**52**	**P2**	3	3	5	2	4	**52**	**P2**

Significance				P2 - Medium							P2 - Medium						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Government Revenue	- Employment of suitably eligible RSA citizens or residents	Construction	Positive	3	3	5	2	4	**52**	**P2**	3	3	5	2	4	**52**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						

7.4. Operation Related Impacts

Financial figures and totals provided regarding production, GDP, employment, and household income under the following impacts are derived from the assumptions provided in **Table 14** (pg. 45) which are then modelled according to a Social Accounting Matrix. The results of which are provided in **Figure 6** (pg. 50).

7.4.1. Sustainable Impact on Production

The **operations of the proposed project will generate R179.8 million (2023 prices) of business sales per annum**. Due to the backward linkages and the multiplier effect associated with the consumption induced impacts, the total annual impact on the production in the country will amount to R394.9 million per annum.

The proposed project will have to acquire inputs from a variety of sectors such as trade and accommodation, transport and storage, and government services. These **additional new business sales averaging R118.8 million (2023 prices) per year**, will be created as a result of the indirect multiplier effect stimulated by operating activities of the proposed project. Manufacturing followed by real estate and business services will experience the largest increase in production due to stimulus.

The upsurge in household expenditure, induced by the project's activities, will **further generate R96.2 million (2023 prices) per annum**. This expenditure pattern of households will cause the manufacturing and real estate and business services to experience the largest increase in demand for their products and services.

Considering that the project will be located in the Saldanha Bay Local Municipality and assuming that the entire production value will be accounted as part of the output of the municipality, the size of Saldanha Bay Local Municipality economy is expected to increase.

The table below highlights the impact on production during the operational phase.

Table 26: Sustainable Impact on Production

Preferred Alternative (Option 1)																
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Production	- The developer should encourage the contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies; and - The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Operation	Positive	3	3	5	4	4	**60**	**P2**	3	3	5	4	4	**60**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						

Alternative 1 (Option 2)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Production	- The developer should encourage the contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies; and - The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Operation	Positive	3	3	5	4	4	**60**	**P2**	3	3	5	4	4	**60**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						

7.4.2. Sustainable Impact on Gross Domestic Product

The revenue generated by the proposed project, as discussed under production, will translate into **R160.8 million (2023 prices) of value added annually**. Assuming that the direct impact on GDP, i.e., R75.8 million, to be created on an annual basis will be registered within the municipal boundaries.

Through procurement expenditure, the **operation of the proposed project will create an additional R46.1 million (2023 prices) of value added**. The manufacturing, and real estate and business services sectors will experience the greatest increase in this instance. In the case of increased household income and subsequent growth in household expenditure, a further stimulation will create R38.9 million of value added. Here, manufacturing, and real estate and business services, will experience the largest increase in value added. In summation, the greater the value of goods and services procured by the proposed project during its operations from the local economy, the greater the overall economic benefit for the local municipality.

The table below highlights the impact on gross domestic product during the operational phase.

Table 27: Sustainable Impact on Gross Domestic Product

Preferred Alternative (Option 1)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Gross Domestic Product	- The developer should encourage the contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies; and - The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from	Operation	Positive	3	3	5	4	4	**60**	**P2**	3	3	5	4	4	**60**	**P2**

	local suppliers were feasible.																
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Gross Domestic Product	- The developer should encourage the contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies; and - The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Operation	Positive	3	3	5	4	4	**60**	**P2**	3	3	5	4	4	**60**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						

7.4.3. Sustainable Impact on Employment

The operational nature and scale of proposed project will positively impact the socio-economic environment through creating employment opportunities, which will be sustained over the operational phase, if OPEX levels remain as projected in the financial modelling. Direct employment opportunities were provided by the project developer. The proposed project is expected to create **391 FTE jobs, 139 of which are expected to be direct jobs**. A further **114 FTE jobs** are expected to materialise through second round suppliers. This occurs when suppliers of new goods and services to the appointed companies (first round suppliers) experience larger markets and potential to expand. Lastly it is expected that the increased income in these households employed directly or indirectly through the operations of the proposed development will result in additional expenditure in the economy which stimulates growth and spurs additional employment. It is estimated that **138 FTE jobs** will be induced through the OPEX of the proposed development.

The table below highlights the impact on employment during the operational phase.

Table 28: Sustainable Impact on Employment

Preferred Alternative (Option 1)																
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Employment	- Employ labour-intensive methods in construction where feasible. - Sub-contract to local construction companies particularly SMMEs and BBBEE compliant enterprises where possible - Use local suppliers where feasible and arrange with the local SMMEs to	Operation	Positive	2	3	5	4	4	**56**	**P2**	3	3	5	4	4	**60**	**P2**

	provide transport, catering, and other services to the construction crews. - Employ previously retrenched employees of Saldanha Steel Works.																
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Employment	- Employ labour-intensive methods in construction where feasible. - Sub-contract to local construction companies particularly SMMEs and BBBEE compliant enterprises where possible - Use local suppliers where feasible and arrange with the local SMMEs to provide transport, catering, and other services to the construction crews. - Employ previously retrenched employees of Saldanha Steel Works.	Operation	Positive	2	3	5	4	4	**56**	**P2**	3	3	5	4	4	**60**	**P2**

Significance	**P2 - Medium**		**P2 - Medium**	

7.4.4. Sustainable Impact on Household Income

The proposed project will **create employment positions** which will generate personal income and will be sustained for the entire duration of the project's lifespan. The sustainable income generated because of the operation of the proposed project will positively affect the nutrition, living conditions, access to better health care, access to more options regarding education, and improved ability to make economic choices. The creation of employment positions throughout the country will generate personal income, which will be sustained for the entire duration of the project's lifespan. The sustainable income generated as a result of the project's operation will positively affect the standard of living of all benefitting households. It is estimated that households benefitting directly from the proposed projects operation will earn R42.0 million on average annually, and people are to benefit from the proposed projects operations directly and through multiplier effects, as household income levels are set to rise by R76.3 million. Household income will have a positive impact and will be sustainable over a prolonged period of time.

The table below highlights the impact on household income during the operational phase.

Table 29: Sustainable Impact on Household Income

Preferred Alternative (Option 1)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Household Income	- Where possible, the local labour supply should be considered for employment opportunities to increase the positive impact on the area's economy. - As far as feasible, local small and	Operation	Positive	2	3	5	4	4	**56**	**P2**	3	3	5	4	4	**60**	**P2**

	medium enterprises should be approached to investigate the opportunities for supply inputs required for the maintenance and operation of the facility. - Employ previously retrenched employees of Saldanha Steel Works																
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Household Income	- Where possible, the local labour supply should be considered for employment opportunities to increase the positive impact on the area's economy. - As far as feasible, local small and medium enterprises should be approached to investigate the opportunities for supply inputs required for the maintenance and operation of the facility.	Operation	Positive	2	3	5	4	4	**56**	**P2**	3	3	5	4	4	**60**	**P2**

	- Employ previously retrenched employees of Saldanha Steel Works																
Significance				**P2 - Medium**							**P2 - Medium**						

7.4.5. Sustainable Impact on Government Revenue

A significant amount of **government revenue will be derived from payments of income taxes, royalties, contributions towards fee payments in line with respective regulations, and payroll taxes as a result of the proposed projects operations**. The main source for rest of the payments will be personal income taxes. Increase in government revenue allows the public sector to maintain the existing infrastructure and improve on its service delivery.

The table below highlights the impact on government revenue during the operational phase.

Table 30: Sustainable Impact on Government Revenue

Preferred Alternative (Option 1)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Government Revenue	- None envisioned.	Operation	Positive	2	3	5	4	4	**56**	**P2**	2	3	5	4	4	**56**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						

				(M+	E+	R+	D)x	P=	S	Rating	(M+	E+	R+	D)x	P=	S	Rating
Temporary Impact on Government Revenue	- None envisioned.	Operation	Positive	2	3	5	4	4	**56**	**P2**	2	3	5	4	4	**56**	**P2**
Significance				**P2 - Medium**							**P2 - Medium**						

7.4.6. Sustainable Impact on Improved Economic Contribution in the Northern Cape

The proposed Logistics Hub (Phase 2) would enable an improved level of storage for commodities from the Northern Cape; the provision of improved storage would potentially result in **the associated mines expanding and improving on their production levels and/ or new mines becoming operational**. Should this occur, this would result in improved economic contribution in the Northern Cape as a result of increased operational investment of the associated mines; economic contribution would occur through improved GDP contribution, production, employment, and household income. Strengthening the economy, would assist the Northern Cape Municipality further gaining the capacity and resources required to provide public goods and services required by its population.

The table below highlights the impact on improved economic contribution in the Northern Cape during the operational phase.

Table 31: Sustainable Impact on Improved Economic Contribution in the Northern Cape

Preferred Alternative (Option 1)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Sustainable Impact on Improved Economic Contribution in the Northern Cape	- None envisioned.	Operation	Positive	2	3	5	4	4	56	P2	2	3	5	4	4	56	P2
Significance				**P2 - Medium**							**P2 - Medium**						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Sustainable Impact on Improved Economic Contribution	- None envisioned.	Operation	Positive	2	3	5	4	4	56	P2	2	3	5	4	4	56	P2

in the Northern Cape																	
Significance				**P2 - Medium**							**P2 - Medium**						

7.4.7. Sustainable Impact on Improved Level of Export in Saldanha Bay Local Municipality

The proposed Logistics Hub (Phase 2) is envisioned **to assist in the operations at the Port of Saldanha and increase the productivity of export operations** at the Transnet National Ports Authority Multi-Purpose Terminal in Saldanha. The increase storage of mined commodities, i.e., Manganese Ore, Phosphate Concentrate, Lead Concentrate, Copper concentrate, Zinc Concentrate, Garnet sand, Anthracite, Ilmenite and Zircon sand, from the Northern Cape at the Port of Saldanha, would enable an improved level of export in turn contributing to an improved trade surplus level thus resulting in economic growth. A key import would be manganese, especially, considering the potential the proposed Logistics Hub (Phase 2) has in offering increased storage capacity for Northern Cape Mines transporting their commodities via rail or road; this especially considering the number of new manganese mines becoming operation to meet the global demand for manganese. This in turn would result in attraction of potential customers as mentioned in sub-section 4.5. As per consultation with AMSA, according to shippers and exporters of manganese, a demand exists to export between 20 to 22 million tons per annum, with South Africa only exporting 19 million tons of manganese in 2022. The provision of improved operational efficiencies (i.e., improved storage capacity) translates into lowered logistics costs, enabling greater export volumes even when the international commodity price is low. An increase in exports increases GDP, in this case, particularly, the Saldanha Bay Local Municipality, as improved revenue would occur through commodities exported. Furthermore, an improved level of export, highlights that businesses are operating at an improved level which directly leads to the creation of employment.

The table below highlights the impact on improved level of export in the Saldanha Bay Local Municipality in the during the operational phase.

Table 32: Sustainable Impact on Improved Level of Export in Saldanha Bay Local Municipality

Preferred Alternative (Option 1)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Sustainable Impact on Improved Level of Export in the Saldanha Bay Local Municipality	- None envisioned.	Operation	Positive	5	3	5	4	4	**68**	**P3**	5	3	5	4	4	**68**	**P3**
Significance				**P3 - High**							**P3 - High**						

Alternative 1 (Option 2)															
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Sustainable Impact on Improved Level of Export in the	- None envisioned.	Operation	Positive	5	3	5	4	4	**68**	**P3**	5	3	5	4	4	**68**	**P3**

Saldanha Bay Local Municipality																	
Significance				**P3 - High**							**P3 - High**						

7.4.8. Sustainable Impact on Economic Diversification

The operation of the proposed logistics hub (Phase 2) will have a positive impact on the local and provincial economy. Not only will the transport and storage sector of the Saldanha Local Municipality expand significantly, the **upstream and downstream activities on the value chain will also be impacted.** The upstream activities like mining and transportation will be positively influenced as they are the input product and service to the to the transport and storage sector. The downstream activities in the form of business services and logistics will expand as a result of the proposed logistics hub (Phase 2) operation. The operation of the proposed logistics hub (Phase 2) will therefore increase economic diversification in the local economy but also impact the provincial economy.

The table below highlights the impact on employment during the operational phase.

Table 33: Sustainable Impact on Economic Diversification

Preferred Alternative (Option 1)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Sustainable Impact on Economic Diversification	- Ensure operations continue for as long as possible as project operation will have a positive impact on the provincial and local economy.	Operation	Positive	4	3	5	4	3	**48**	**P2**	4	3	5	4	4	**64**	**P3**

Significance				P2 - Medium							P2 - Medium						
Alternative 1 (Option 2)																	
Receptor	**Description**	**Stage**	**Character**	**Pre-Mitigation**							**Post-Mitigation**						
				(M+	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**	**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	**Rating**
Temporary Impact on Employment	- Ensure operations continue for as long as possible as project operation will have a positive impact on the provincial and local economy.	Operation	Positive	4	3	5	4	3	**48**	**P2**	4	3	5	4	4	**64**	**P3**
Significance				**P2 - Medium**							**P3 - High**						

7.5. Cumulative Impact Statement

It can be understood that the proposed logistics hub (Phase 2) regardless of alternative will result in positive economic impacts, and an increase in associated positive impacts will result with the increase of projects in Saldanha Bay Local Municipality. Cumulative economic impacts will occur for positive impacts (production, GDP, employment, household income, and government revenue) and negative impacts will result from a social perspective. Importantly, mitigation measures proposed for each respective project, has the capability to not only enhance positive impacts but also ensure that any resulting negative social impacts are managed and will not result in an unacceptable loss, unacceptable risk, a complete change to the environment and an unacceptable increase in impact. **Overall, positive impacts will outweigh resultant negative impact, albeit none were identified from an economic perspective.**

7.6. Decommissioning Phase Impacts

It is not envisioned that the proposed logistics hub (Phase 2) regardless of alternative will be decommissioned, however, if the proposed project is decommissioned, the land for proposed project would be rehabilitated in order to return it to pre-project conditions. This also means that all impacts which take place during the operation phase will cease to exist. At the same time, spending on the disassembly of the components and rehabilitation of land will increase the demand for construction services and other industries, thus stimulating economic activity in the local area, albeit over a temporary period. Socio-economic impacts stimulated during the decommissioning phase are expected to be similar to those that took place during the construction phase.

The impact tables would be similar in nature to the construction phase; they will also be temporary in nature, but most likely will take a much shorter time than the construction phase. They will also be associated with some expenditure, although it will be less than the investment required during the construction phase. Besides the positive impacts on production, employment, and household income that could ensue from the projects, some negative impacts could also occur. These would largely be related to the slight increase in noise in the area surrounding the site, an increase in traffic and concerns over local safety and security due to a greater number of people accessing the area, albeit this would occur from a social perspective as opposed to an economic perspective.

All of the positive impacts can be enhanced to increase the benefits, while the negative impacts, albeit social, could be mitigated. However, should the decommissioning process occur, a distinct loss of operational jobs would occur which in turn would have a negative influence on livelihoods and the local economy. Overall, the impacts that would ensue during the decommissioning phase will mostly be of low significance, but the distinct loss of operational jobs would be of high significance.

7.7. Net Effective Trade-Offs

The review of the proposed project from an economic perspective is only associated with positive impacts. To assess whether the project is beneficial, the additions to the environment brought about by the project

need to be evaluated. The additional benefits of the intervention are the difference between the reference case position (i.e., the no-go option) and the position if the intervention is implemented. It involves the evaluation of the net effect and trade-offs associated with the proposed intervention. **Table 34** provides a summary of the socio-economic gains and losses that could be expected to occur as a result of the project (i.e., construction and operation).

Table 34: Summary of Socio-Economic Gains and Losses

Impact	Gain	Loss	Net Effect
Construction (once-off)			
Impact on Production	Yes	No	Positive
Impact on Gross Domestic Product	Yes	No	Positive
Impact on Employment	Yes	No	Positive
Impact on Household Income	Yes	No	Positive
Impact on Government Revenue	Yes	No	Positive
Operation (permanent)			
Impact on Production	Yes	No	Positive
Impact on Gross Domestic Product	Yes	No	Positive
Impact on Employment	Yes	No	Positive
Impact on Household Income	Yes	No	Positive
Impact on Government Revenue	Yes	No	Positive
Impact on Improved Economic Contribution in the Northern Cape	Yes	No	Positive
Impact on Improved Level of Export in the Saldanha Bay Local Municipality	Yes	No	Positive
Impact on Economic Diversification	Yes	No	Positive

The review of the net effects of the project during the construction and operation phase suggest that no negative economic impacts were identified thus positive impacts would outweigh negative impacts. Thus, the positive net effect on the economy can be deemed to be greater than the lack of negative net effects from an economic perspective. However, should decommissioning of the project result, then no operational economic benefits would result unless a similar or alternative use is identified and implemented. This would ensure the loss of jobs, household income, GDP, production, and government revenue, etc, would not result and provide economic injection into the economy.

Section Eight: Assessment of Project Alternatives

8.1. Site Area

A comprehensive iterative design process has been undertaken to inform the layout for the proposed logistics hub (Phase 2). In addition, the layout of the proposed logistics hub (Phase 2) has been informed by the identified environmental sensitive and/or 'no-go' areas. All highly sensitive and/or 'no-go' areas identified by the specialists have been avoided by the project infrastructure and all recommended buffer areas will be respected. The preferred alternative (Option 1) was thus created from an environmental screening perspective as well as from an efficiency perspective in terms of existing infrastructure. The key difference between the preferred alternative (Option 1) and alternative 1 (Option 2) is the location of the warehouse. There are no highly sensitive and/or 'no-go' areas associated with the proposed site area from an economic perspective, and thus no fatal flaws. The location proposed for the site area is thus deemed acceptable from an economic perspective and should be authorised.

8.2. No-Go' Alternative

The 'no-go' alternative is the option of not constructing the proposed logistics hub (Phase 2), where the *status quo* of the current status and/or activities on the project site would prevail. This alternative would result in no additional impact on the receiving environment.

With the care and maintenance of the Saldanha Steel site, a significant negative economic influence was felt in the local economy, especially, with the significant loss of operational jobs. Thus, should the 'no-go' alternative be considered, there would be no impact on the existing environmental baseline and no benefits to the local economy and affected communities. The alternative also bears the opportunity cost of missed economic benefits to the economy.

As mentioned in Section 7.6, the review of the net effects of the proposed logistics hub (Phase 2) regardless of alternative suggests that positive effects and impacts would outweigh the negative effects, albeit no negative impacts were identified from an economic perspective. Despite the fact that the 'no-go' alternative will result in the avoidance of negative impacts from an economic perspective, this would also result in the positive effects / impacts not being realised. The construction and operation of the proposed logistics hub (Phase 2) regardless of alternative is preferred over the 'no-go' alternative (i.e., it is preferrable form an economic perspective that the proposed project be constructed).

Section Nine: Conclusion and Recommendations

Economically, the proposed logistic hub (phase 2) regardless of alternative is not envisioned to create any negative impacts, thus, net positive impacts associated with the construction and operation of the proposed logistics hub (Phase 2) would outweigh the net negative effects. The proposed project is envisaged to have a positive stimulus on the local economy and employment creation, leading to the economy's diversification and a small reduction in the unemployment rate. Additionally, the proposed logistics hub (Phase 2) will provide a means to improving the storage capacity of certain commodities, especially manganese, which will in turn result in improved export, economic diversification of upstream and downstream sectors, as well as enable economic growth in the Northern Cape.

In terms of the site area assessed, there are no fatal flaws from an economic perspective and thus the location is deemed acceptable and should be authorised. With regards to the proposed project, it is deemed acceptable and should be authorised by the DEADP, as no fatal flaws or other potentially significant issues / impacts have been identified. In addition, even though the 'no-go' alternative will result in the avoidance of negative impacts from an economic perspective, this would also result in the positive effects / impacts not being realised, especially, the potential reemployment of individuals who lost their jobs due to the closure of Saldanha Steel. Since positive effects/ impacts from an economic perspective would outweigh the lack of negative impacts, the construction and operation of the proposed project is preferred over the 'no-go' alternative.

The proposed logistics hub (Phase 2) regardless of alternative should therefore be considered for development, subject to the implementation of the recommended of enhancement measures. No imbalance was identified between positive and negative economic impacts; thus, enhancement measures can only be applied to the identified positive economic impacts. Application of the enhancement measures will assist in improving the effect of the impacts in the economy and in local towns/ communities should local labour be utilised.

Appendix A: Specialist Details

Marcel Theron

Cell: 072 216 7050

E-mail: marcel@urban-econ.com

Position: Senior Development Economist

Qualifications: BA Hons (Psychology), BBA (Psychology, Business)

Experience: 11 years

Brief profile: Marcel is a senior development economist with Urban-Econ in Cape Town. He has extensive knowledge in socio-economic assessments, local economic development, and other fields of development economics. Impact assessments have been conducted for a variety of private clients, with development concepts ranging from residential, retail, mixed-use developments, renewable energy, mining, infrastructure, etc. His application of all knowledge and skills gained through his time at Urban-Econ has positively benefited his ability to contribute to current and future development projects.

Appendix B: Curriculum Vitae

Education:			
University of South Africa (2009 - 2013)		Bachelor of Arts: Honours. (Psychology)	
University of South Africa (2004 - 2008)		Bachelor of Business Administration: Business and Psychology	
Language Proficiency:	**Reading**	**Writing**	**Speaking**
English	Excellent	Excellent	Excellent
Afrikaans	Average	Average	Below Average

Experience Record	
Project: Year: Location: Client: Project features: Position held: Activities Performed:	R300 Road Extension 2023 Durbanville Guillaume Nel Environmental Consultants Impact Assessment Researcher Urban-Econ Development Economists was appointed by Guillaume Nel Environmental Consultants to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the extension of the R300 and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project features: Position held: Activities Performed	Agste Laan Informal Settlement Upgrade Impact Assessment 2023 Valhalla Park Ecosense CC Impact Assessment Researcher Urban-Econ Development Economists were appointed by Ecosense CC to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the upgrade of the Agste Laan informal settlement and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project features: Position held: Activities Performed:	Doornbach Informal Settlement Upgrade 2023 Milnerton Ecosense CC Impact Assessment Researcher Urban-Econ Development Economists were appointed by Ecosense CC to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the upgrade of the Doornbach informal settlement and to identify possible impacts that

	could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project features: Position held: Activities Performed:	Bernards Diamond Prospect Impact Assessment 2023 Kleinsee/ Koningnaas (Kamiesberg Local Municipality Milnex CC Impact Assessment Team leader/ researcher Urban-Econ Development Economists were appointed by Milnex CC to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding a prospecting right application for offshore diamond mining and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project features: Position held: Activities Performed:	Welgemoed Mixed Use Development Impact Assessment 2023 Atlantis KAPP Environmental Consultants Impact Assessment Team leader/ researcher Urban-Econ Development Economists were appointed by KAPP Environmental Consultants to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the development a filling station in Atlantis and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project features: Position held: Activities Performed:	Wolwerivier Impact Assessment 2022 Cape Farms, Cape Town Ecosense CC Impact Assessment Team leader/ researcher Urban-Econ Development Economists were appointed by Zutari to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the development of serviced sites at Cape Farms in the City of Cape Town and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.

Project:	iLanga Emoyeni Solar Facility Impact Assessment
Year:	2022
Location:	Beaufort West
Client:	Zutari
Project features:	Impact Assessment
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists were appointed by Zutari to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed solar farm in Beaufort West and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	Graanendal Filling Station
Year:	2022
Location:	Durbanville
Client:	Guillaume Nel Environmental Consultants
Project features:	Impact Assessment
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists were appointed by Guillaume Nel Environmental Consultants to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed wind farm in Durbanville and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	JESSA Wind Farm Impact Assessment
Year:	2022
Location:	Beaufort West
Client:	SLR Consulting
Project features:	Impact Assessment
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists were appointed by SLR Consultants to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed wind farm in Beaufort West and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	Groot Phisantekraal Socio Economic Impact Assessment
Year:	2021
Location:	Cape Town
Client:	Guillaume Nel Environmental Consultants Socio-Economic Impact
Project features:	Team leader/ researcher
Position held:	Urban-Econ Development Economists were appointed by Guillaume Nel
Activities Performed:	Environmental Consultants Socio-Economic Impact to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed mixed-use development and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.

Project:	Pienaarspoort Wind Energy Facility 1 and 2
Year:	2021/2
Location:	Western Cape
Client:	SavannahSA
Project features:	Socio-Economic Impact Analysis
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists were appointed by SavannahSA to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	Economic Impact Assessment of the Forest Molecular Genetics Programme
Year:	2021
Location:	Pretoria
Client:	TIA
Project features:	Impact Analysis
Position held:	Researcher
Activities Performed:	**Urban-Econ was appointed by TIA to conduct an Economic Impact Assessment of the Forest Molecular Genetics Programme to determine the social and economic impact of the programme. Key activities performed include a literature review, programme review, and a performance assessment of the overall programme**.
Project:	Hindle Road Socio-Economic Impact Assessment
Year:	2021
Location:	Cape Town'
Client:	GNEC
Project features:	Socio-Economic Impact Analysis
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists were appointed by GNEC Ltd to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	Aan De-Zicht Socio-Economic Impact Assessment
Year:	2021
Location:	Cape Town'
Client:	Doug Jeffrey (Pty) Ltd
Project features:	Socio-Economic Impact Analysis
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists was appointed by Doug Jeffrey (Pty) Ltd to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.

Project:	Gordons Bay Market Feasibility Study
Year:	2020
Location:	Cape Town
Client:	Urban Land Riverside (Pty Ltd#
Project features:	Market Opportunity Analysis/ Demand Assessment
Position held:	Researcher
Activities Performed:	Urban-Econ was appointed by Urban Land Riverside (Pty Ltd to conduct a market feasibility study for a mixed-use/ new node within Gordons Bay. The objective of this report was to provide the client with sufficient local knowledge of the development opportunities in the market area to provide a land use and phasing plan to inform the development of the site. The markets assessed for the purpose of the market feasibility are as follows: - Residential (upmarket, high density, low density, and pre-retirement). - Retirement. - Commercial/ Business Park. - Retail. - Education (primary schools, high schools, and higher education). - Medical; and - Storage/ light industrial.
Project:	Pelican Park Socio-Economic Impact Assessment
Year:	2020
Location:	Cape Town
Client:	GIBB
Project features:	Socio-Economic Impact Analysis
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists were appointed by GIBB Ltd to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	Tronox Mine Socio-Economic Impact Assessment
Year:	2020
Location:	Matzikama Local Municipality
Client:	Envass
Project features:	Socio-Economic Impact Analysis
Position held:	Team leader/ researcher
Activities Performed:	Urban-Econ Development Economists were appointed by Envass Ltd to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project:	Effectiveness Evaluation of the Culemborg Safe Space
Year:	2019/ 2020
Location:	Cape Town
Client:	City of Cape Town
Project Features:	Monitor and Evaluation
Position held:	Lead Researcher

Activities Performed:	**Conduct an evaluation of the Culemborg Safe Space in terms of implementation, outcome, and cost benefit analysis. As such the study should inform the City of Cape Town on the following:** - **Whether Safe Space is operating as conceptualized.** - **Whether and how Safe Space is meeting its intended objectives.** - **Whether there are unintended outcomes because of operating Safe Space.** - **The cost-benefit of operating the Safe Space.**
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	Piketberg Filling Station Socio-Economic Impact Assessment 2019 Piketberg PBPS – Environmental and Water License Consultants Socio-Economic Impact Analysis Team leader/ researcher Urban-Econ Development Economists were appointed by PBPS – Environmental and Water License Consultants to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	Langebaan Truck Stop and Filling Station Socio-Economic Impact Assessment 2019 Saldanha Bay Local Municipality Guillaume Nel Environmental Consultants Socio-Economic Impact Analysis Team leader/ researcher Urban-Econ Development Economists were appointed by Headland Planners to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	Schulz Vlei Socio-Economic Impact Assessment 2019 Cape Town Headland Planners Socio-Economic Impact Analysis Team leader/ researcher Urban-Econ Development Economists were appointed by Headland Planners to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client:	Muizenberg Pavilion Opportunity Analysis 2019 Cape Town City of Cape Town

Project Features: Position held: Activities Performed:	Opportunity Analysis Team Leader/ Market Researcher Urban-Econ was appointed by the City of Cape Town Property Development Department to investigate the Muizenberg Pavilion to determine how the site could be maximized in terms of its usage and to increase its potential value for the City of Cape Town. A problem statement was created as well as an overview of the opportunity cost for not redeveloping the site.
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	Maitland Crematorium Opportunity Analysis 2018/2019 Cape Town City of Cape Town Opportunity Analysis Team Leader/ Market Researcher Urban-Econ was appointed by the City of Cape Town Property Development Department to investigate different business case scenarios for the Maitland Crematorium to guide the City of Cape Town in decision-making on how the facility should be maintained and operated in the future.
Project: Year: Location: Client: Project features: Position held: Activities Performed:	Bella River Socio-Economic Impact Assessment 2019 Cape Town Guillaume Nel Environmental Consultants Socio-Economic Impact Analysis Team leader/ researcher Urban-Econ Development Economists were appointed by Guillaume Nel Environmental Consultants to undertake a Socio-Economic Impact Study. The aim of the social impact assessment is to investigate and describe the social and economic environment surrounding the proposed development site and to identify possible impacts that could affect the environment as required by the Environmental Impact Assessment Guidelines and Legislature.
Project: Year: Location: Client: Project features: Position held: Activities Performed:	Harbour Arch 2018 Cape Town Amdec Impact Analysis and Market Overview Researcher Amdec aims to utilise the study as an economic and social motivation for the application to the City of Cape Town for the facilitation of procuring land use rights pertaining to an erf in Cape Town. In order to motivate the procurement of land use rights pertaining to the erf it is important for the client to demonstrate the economic and social benefits that will be unlocked as the result of the proposed development. The purpose of the report was to provide an overview of the potential impacts as a result of the development of Harbour Arch.

Project:	GTP Student Accommodation Market Research
Year:	2018
Location:	Cape Town
Client:	Greater Tygerberg Partnership
Project features:	Market Research
Position held:	Researcher
Activities Performed:	The Greater Tygerberg Partnership commissioned Urban-Econ Development Economists Pty Ltd to conduct market research for student accommodation in their target area. The market research is aimed at identifying trends in student accommodation as well as determining the demand for student accommodation in the study area.
Project:	Grand Parade Opportunity Analysis
Year:	2017/2018
Location:	Cape Town
Client:	City of Cape Town
Project Features:	Opportunity Analysis
Position held:	Team Leader/ Market Researcher
Activities Performed:	Urban-Econ was appointed by the City of Cape Town Property Management Department to undertake a market opportunity study to identify opportunities to improve the utilization of the Grand Parade and how to spend the budget allocated for the improvements. The need for improvements stems from the fact that the Grand Parade is not being optimally utilised and is associated with several issues such as loitering, vandalism, drug peddling and deteriorating infrastructure etc. Based on the above, the objectives of this report are to provide a vision for the Grand Parade which includes potential activities which will improve space utilization and the onsite environment. This will in turn assist in attracting local and international visitors who will create the means of celebrating the heritage of the Grand Parade.
Project:	City Hall Market Feasibility
Year:	2017
Location:	Cape Town
Client:	City of Cape Town
Project Features:	Market Research and Feasibility Study
Position held:	Market Researcher
Activities Performed:	Urban-Econ was appointed by the City of Cape Town Property Development Department to undertake a market feasibility study to identify commercial opportunities for the Cape Town City Hall (hereafter called City Hall). The study investigates potential uses and activities that may be incorporated into the City Hall operations on site. These recommendations take cognizance of how the recommended commercial tenant/s and activities could offset some of the operational expenses of the City Hall and increase its status as an iconic building
Project:	Baseline Socio-Economic Impact Assessment: Proposed Expansion of Crude Oil Jetty and Construction of Associated Pipeline
Year:	2017
Location:	Saldanha Bay Local Municipality
Client:	Advisian
Project Features:	Baseline Scoping Report
Position held:	Main researcher
Activities Performed:	This document is prepared by Urban-Econ Development Economists, as requested by Advisian on behalf of Oiltanking MOGS Saldanha (RF) (Pty) Ltd, to undertake a

	specialist socio-economic impact analysis for the expansion of the proposed crude oil jetty and construction of associated pipeline systems. Activities performed included demographic profiling, policy reviews, trend analysis and preliminary impact assessment, etc.
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	Farmer Production Support Unit Business Plans 2017 Ebenhaeser and Hermanus Department of Rural Development Market and Feasibility Analysis Main Researcher The purpose of the Business Plan is to clarify the functions, roles, and responsibilities that the FPSUs will partake in the process of developing the Agri-Parks model. The Business Plan will serve as a guideline to develop and manage the FPSU in a sustainable manner, while aligning with the Agri-Park model. The Business Plan will guide stakeholders to manage the FPSU sites to support and increase the production of farmers. To ensure an increase in production, various inputs would be required, such as mechanical inputs, training, seed, fertilizer etc. It will be critical that these inputs are of high quality as this will affect the ability of farmers to compete on par with larger agricultural entities.
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	Master Agri-Park Business Plan 2016 - 2017 Gauteng Department of Rural Development and Land Reform Business Plan Main Researcher Urban Econ (Pty) Ltd was requested by the Department of Rural Development and Land Reform (DRDLR) to develop a Master Agri-Park Business Plan for Sedibeng District Municipality. The DRDLR has been commissioned for the implementation of an Agri-Parks programme that is aimed at the eradication of rural poverty, a critical challenge for the government which requires a business plan is developed for each Agri-Park to move forward with operationalization. Urban-Econ conducted an in-depth analysis of the current agricultural conditions in the Sedibeng District Municipality. Urban-Econ also conducted a socio-economic analysis, policy review, commodity analysis. The last part of the study entailed providing the client with detailed recommendations/ guidelines.
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	Doringbaai Abalone Due Diligence Report 2016 Doringbaai Department of Rural Development Market Research and Analysis Main Researcher Urban-Econ Development Economists was appointed by the Department of Rural Development and Land Reform to provide economic advisory services and to undertake a Due Diligence of Doringbaai Abalone (Pty) Limited. The Doringbaai Abalone Farm is situated in Doringbaai and is one of the only economic activities in the community creating major employment opportunities. A request has been made to the DRDLR for a grant which will be used for CAPEX expenses of the project to expand the existing abalone production.
Project:	Master Agri-Park Business Plan

Year:	2016 - 2017
Location:	Gauteng
Client:	Department of Rural Development and Land Reform
Project Features:	Business Plan
Position held:	Development Economist
Activities Performed:	Urban Econ (Pty) Ltd was requested by the Department of Rural Development and Land Reform (DRDLR) to develop a Master Agri-Park Business Plan for Sedibeng District Municipality. The DRDLR has been commissioned for the implementation of an Agri-Parks programme that is aimed at the eradication of rural poverty, a critical challenge for the government which requires a business plan is developed for each Agri-Park to move forward with operationalization. Urban-Econ conducted an in-depth analysis of the current agricultural conditions in the Sedibeng District Municipality. Urban-Econ also conducted a socio-economic analysis, policy review, commodity analysis. The last part of the study entailed providing the client with detailed recommendations/ guidelines.

Other Projects:

- Veld PV North and South Amendment Report
- Kudusberg Amendment Report
- Koeris Amendment Report
- Wynberg Facilities Precinct Feasibility Study
- Cape Town Creative Precinct Plan
- Terra Nominees Socio-Economic Impact Assessment
- Gordons Bay Residential Socio-Economic Impact Assessment
- Annandale Socio-Economic Impact Assessment
- Kronos PV Facility Socio-Economic Impact Assessment
- Implementation & Outcome Evaluation of the City of Cape Town's World Design Capital Initiatives
- Cape Town Entertainment Dome Market Demand Analysis

Cape Town Art Fair

Other Projects:

- Veld PV North and South Amendment Report
- Kudusberg Amendment Report
- Koeris Amendment Report
- Wynberg Facilities Precinct Feasibility Study
- Cape Town Creative Precinct Plan
- Terra Nominees Socio-Economic Impact Assessment
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- Annandale Socio-Economic Impact Assessment
- Kronos PV Facility Socio-Economic Impact Assessment
- Implementation & Outcome Evaluation of the City of Cape Town's World Design Capital Initiatives

Appendix C: Specialist Declaration

I … Marcel Theron… , as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal, or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted).
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements.
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

23.02.2024

Signature of the Specialist: Date: