



Ship and Boat Sector Study in South Africa

Prepared by: Fathima Amra

For: Claude Pretorius

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Introduction

South Africa's Ocean Economy

In 2010 the ocean contributed approximately R54 billion (~US\$3, 5 bn) to South Africa's GDP and accounted for approximately 316,000 jobs. The ocean has the potential to contribute up to R177 billion (~US\$12bn) to GDP and between 800 and 1 million direct jobs. These growth levers reflect at least 4 per cent annual growth in both GDP contribution and job creation (Operation Phakisa, 2015).

Shipbuilding in South Africa has been ongoing for some 35 years albeit in a start-stop operation (Southern African Shipyards, 2015). There are currently six companies involved in construction and/ or repairing of vessels, and they include: Damen Shipyards Cape Town (DSCT), Dormac Marine and Engineering, DCD Marine Ship and Rig Repair Services, SNN Ship Co. (Pty) Ltd, and Southern African Shipyards (Pty) Ltd. Over the years the demand from the South African market for the new buildings has been infrequent, and that has not been enough to enable any stability in the South African shipbuilding industry.

The dominance of the Asian and Eastern European shipyards in the shipbuilding industry as a result of large subsidies provided by their governments has led to the downside of the South African shipbuilding industry. Most successful shipbuilding nations have had their industry supported by their the government through subsidies, strong by-local policies, creation of an enabling policy environment, guarantees provided by the government, and soft funding, as opposed to the little support provided by the South African the government (DoEDT, 2013). There are other major factors that have borne deficiencies towards the South African shipbuilding industry. The combination of high costs of steel and the productivity of labour are the major containing factors (DoEDT, 2013). The shipbuilding industry is a labour intensive industry with shipyards working twenty four hours, and this involves labour legislations which have costly demands for workers. The monopolies in industries such as the steel industry that directly contribute to the shipbuilding industry have made it difficult to source steel locally, instead importing steel has in some cases become a more viable option. The loss of business by local companies to foreign companies has also been another downside to the South African shipbuilding industry. With the South African the government and local shipping lines failing to guarantee the local companies sustainable orders for new vessels not only do companies lose

business opportunities, but there is loss of job opportunities, and divest of new skills that the country could benefit from.

Nevertheless, amidst the challenges that exist, there are opportunities for economic growth and new jobs through the shipbuilding and repair industry in South Africa. The labour intensity that comes with the strong demand by the industry could create new opportunities for skills development and strong backwards linkages to industries such as steel manufacturing (DoEDT, 2013). South African shipyards have manufactured mega yacht vessels ranging from 23 metres and 95 metres, and tugs and workboats built with a 70 bollard pull, RoRos, RoPax, offshore vessels, naval vessels, high speed craft, and fishing vessels (Southern African Shipyard, 2015).

[World Overview](#)

There are thousands of vessels that sail all around the world as a result of the shipbuilding industry. The shipbuilding industry is responsible for the construction and the modification of vessels. The construction and modification of the vessels is carried out in focused facilities known as shipyards, where quality and safety should not be compromised in respect to both the construction of vessels and the operation of critical equipment being used.

With over two thousand five hundred shipyards in the world, competition in the shipbuilding industry is very prevalent. The Asian region has enjoyed the greater part of the shipbuilding industry with most production carried out in China, South Korea, and Japan. However, there are other large shipyards in other parts of the world. The shipbuilding industry includes privately owned businesses such as family firms, and multinational corporations, with the production of the vessel types being as diverse. Table 1 reflects the dominant firms in the industry which include: Hyundai Heavy Industries, Samsung Heavy Industries, and Daewoo Shipbuilding and Marine Engineering (DSME) (Business Wire, 2016).



Table 1: Largest Shipbuilders in the World

Rank	Commercial Shipbuilding Only		Offshore Builders Only		Overall Ranking incl. Offshore	
	Shipbuilder Name	Market Share (in CGT of merchant orderbook)	Shipbuilder Name	Market Share (in USD value of orderbook)	Shipbuilder Name	Market Share (in USD value of orderbook)
1	Hyundai Heavy, HHI	8.18%	Samsung Heavy	22.91%	Samsung Heavy	10.31%
2	Samsung Heavy	6.85%	Daewoo, DSME	12.85%	Hyundai Heavy, HHI	8.83%
3	Daewoo, DSME	5.93%	Hyundai Heavy, HHI	11.90%	Daewoo, DSME	6.82%
4	Imabari Shipbuilding	4.52%	Keppel FELS	10.61%	STX Offshore & Shipbuilding	2.91%
5	STX Offshore & Shipbuilding	3.65%	Sembcorp - Singapore	7.03%	Keppel FELS	2.03%
6	Hyundai Mipo, HMD	2.66%	Cosco Shipyard	4.90%	Hyundai Mipo, HMD	1.95%
7	Jin Hai Heavy Industry	2.29%	CIMC Raffles Offshore	2.50%	Jiangsu Rongsheng	1.62%
8	Jiangsu Rongsheng	2.07%	STX Norway	2.42%	Cosco Shipyard	1.57%
9	Yangzijiang Shipbuilding	1.99%	ABG Shipyards	1.88%	Dalian Shipbuilding, DSIC	1.52%
10	Dalian Shipbuilding, DSIC	1.94%	Keppel FELS Brasil	1.61%	Jin Hai Heavy Industry	1.37%

Source: *Worldyards Statistics June 2011*

For most countries such as South Africa, a country that is looking into developing the industrial infrastructure, they have found the shipbuilding industry as a solution to their long term strategy with strong linkages for economic growth and employment multipliers (Defence Web, 2014). The shipbuilding industry is seen as one critical driver to a nation's economy as it contributes towards increased new jobs and revenue generated by the shipyards. The shipbuilding industry is ultimately a critical factor to the global economy as the vessels built are used to move traded goods in and around the world.

The Structure of South African Shipping and Who Owns Ships

The South African maritime industry is led by the Maritime Department within the Department of Transport (NDOT) and has mandated the South African Maritime Safety Authority (SAMSA) to manage and foresee the maritime affairs in a South African context. On the other hand, Transnet National Ports Authority is mandated with the task of managing and controlling all the eight ports in South Africa which are: Port of Durban, Port of Port Elizabeth, Ngqura, Port of Saldhana Bay, Mossel Bay, Port of Richards Bay, Port of Cape Town and lastly the Port of East London. In addition to port affairs there is the Ports Regulator of South Africa administers the economic regulation of the ports system in South Africa, in accordance to the

strategic development context of the state. In regards to ship owners there is ship owners association however there is a combined interest entity, known as the South African Association of Ship Operators and Agents (SAASOA), which is said to represents the maritime interests of ship owners, operators and local agents. The South African shipping market has a currently active registry that is open to local and foreign ship owners. Presently, 3 ships that operate under the South African flag however only two are locally owned while one is foreign owned. The South Africa shipping market has cargo owners such as the mining and liquid fuel

industry etc., who charter vessels e.g. long-term time charter, non-vessel owning cargo carrier. It is not clear as to what extent ship management services are offered; there are a few ship management companies. South Africa has no ship financing services for acquisition of ships. The South African maritime industry is largely dominated by foreign shipping companies from the likes of Maersk, MSC, Hamburg Sud, Grindrod Shipping, K Line Shipping, CMA CGM to name a few. All these foreign shipping line are reputable with a large fleet base under their ownership. Presently, Vuka Marine, which is in a joint venture with K Line Shipping has two ships namely, represents South Africa; Cape Orchid and Cape Enterprise both bulk carriers. In addition, there is a black-owned shipping company MC5 Shipping that is a new 21 entrant in the market. The company's key function was founded on providing maritime transportation to the oil and gas sector. It is however unclear as to whether if MC5 Shipping do own ships or not yet. South Africa has an enabling governance framework to allow for maritime activities to take place and this is seen with the birth of both Vuka Marine and MC5 Shipping during the 21st century. If maritime activities are properly harnessed South African shipping will have a meaningful participation in world shipping.

Overview of the Maritime Transport Sector

The sea, coastal and inland water transport system facilitates trade and plays a crucial role in the movement of passengers and goods. Intercontinental shipping involves deep-sea movement of cargo and passengers in oceangoing vessels, while coastal, or short-sea shipping, involves coastwise transportation. Short-sea vessels are often small enough to navigate inland waterways. Several shipping lines offer regular services with a fixed itinerary (routing) or schedule of port calls. This is known as liner shipping or liner service and may include passenger cruise lines, car carriers and the movement of various types of cargo, including containers. A vessel that does not have a regular schedule or fixed routing is known as a tramp or tramp service.

The world's merchant fleet of cargo-carrying ships account for more than 80% of trade by volume and over 70% in value. South Africa did not have a single locally-flagged merchant ship on its ship registry between 1998 and 2015 and is highly reliant on the services of foreign-owned and operated cargo-carrying vessels. Between the second half of 2015 and March 2021, South Africa gained six merchant vessels:

- Cape Orchid, operated by Vuka Marine, based in Gqeberha (formerly Port Elizabeth), which is no longer in service;
- Cape Enterprise (Vuka Marine);
- MT Lefkas, owned by Gqeberha-based Aegean Bunkering Marine Services;
- Greatship Manisha, operated by Cape Town-based Marine Crew Services;
- Windsor Adventure (Vuka Marine); and
- Cape Acacia (Vuka Marine).

While many of the major international shipping lines have established a presence in South Africa, others prefer to conduct their operations through local shipping agents. These agents handle seaborne transportation and/or the logistics of transporting commodities to and from South African ports. South Africa is also a popular refreshment station and numerous vessels call at its ports to refuel and replenish their supplies, or to undergo repairs.

There are four broad categories of waterborne cargo:

- Domestic cargo;
- Imports and exports;

- Transit cargo destined for landlocked countries; and
- Transshipment cargo, which involves the transfer of cargo or containers from one ship to another at an intermediate port while in transit to the port of final destination.

Cargo is further differentiated according to type:

- Containerised cargo, which is measured in six-metre units, otherwise known as twenty-foot equivalent units (TEUs);
- Roll-on/roll-off (ro-ro) automotive cargo, which can be driven onto a ship;
- Dry bulk, such as coal, iron ore, manganese and sugar;
- Liquid bulk, including petroleum products, chemicals and vegetable oils; and
- Break-bulk cargo, which typically comprises non-containerised cargo that is loaded individually, such as wind turbines, or general freight that is packaged in bags, crates or boxes such as fruit and fish.

The volume of agricultural produce handled at ports fluctuates according to the harvesting seasons of the products concerned. The passenger cruise line industry is also seasonal and prior to the pandemic, cruise liners typically visited South African ports between the end of October and the end of April.

Ports and Harbours

Commercial ports and harbours play a critical role in the domestic economy as enablers of trade between South Africa and its trading partners in the region and in other parts of the world. In addition to acting as conduits for imports, exports and transshipments, these transport nodes provide essential maritime services to international shipping traffic destined for other parts of the globe. Rail and road networks connect commercial ports to inland markets, which largely determine the type of cargo that is handled by each port.

South Africa's commercial port system comprises the ports of Richards Bay and Durban in KwaZulu- Natal; East London, Ngqura (Coega) and Gqeberha in the Eastern Cape; Mossel Bay, Cape Town and Saldanha in the Western Cape; and Port Nolloth in the Northern Cape. Port Nolloth is leased to De Beers Consolidated Diamond Mines and does not handle commercial cargo. Boegoebaai, near the Northern Cape town of Alexander Bay, has been identified as a potential site for the development of a new commercial port.

The Transnet National Ports Authority (TNPA), which has operated South Africa's commercial ports as an operating division of state-owned transport and logistics company Transnet, is in the process of becoming an independent subsidiary of Transnet (Refer to [State/Local/Corporate Actions](#)). The establishment of an independent National Ports Authority allows revenues generated by the ports from lease income, marine services, cargo tariffs and other sources to be used for the upgrading and expansion of port infrastructure and new equipment. Previously, Transnet received TNPA revenue and determined allocations for capital expenditure. Significantly, the restructuring allows for greater collaboration between TNPA and the private sector. The National Ports Authority will continue to be responsible for maintaining port infrastructure and providing maritime services, including the implementation of safety and security measures, dredging, aids to navigation, vessel traffic services and the provision of tugs, pilot boats, helicopters and other services and facilities for the navigation and berthing of vessels in South African ports. It may enter into agreements with private parties, or license other companies to operate port terminals and provide maritime services.

Transnet Port Terminals (TPT), a division of Transnet, operates cargo terminals and provides cargo- handling, storage and warehousing services to shipping lines, freight forwarders and cargo owners. Bidfreight Port Operations, part of the Bidvest Group and the Bidvest Freight division operates at seven of South Africa's commercial ports. Its activities include the operation of multi-purpose terminals, warehousing, the transportation of freight and on-board handling of cargo (stevedoring). Other private terminal operators at South African ports include Richards Bay Coal Terminal; Bulk Connections, which handles bulk cargo such as coal, manganese and copper ore in Durban; and SA Sugar Terminals in Durban.

Marine Manufacturing

The marine manufacturing subsector includes the following activities:

- The building of watercraft, boats, yachts and ships of various classes;
- The manufacture of drilling platforms, barges, pontoons and other floating or submersible structures;
- The manufacture of marine components and equipment, such as sails, masts, kiteboards, wetsuits, marine grade rope, rigging components, carbon fibre hatches, engine components, upholstery and other accessories;

- Marketing, sales and distribution of vessels and equipment; and
- Specialist marine services, including maintenance, hull cleaning, refurbishment and repair of vessels and offshore oil and gas drilling rigs.

Waterborne vessels are commonly classified in terms of the following criteria:

- The number of hulls: monohull (single-hulled), catamaran (twin-hulled), trimaran (three hulls);
- Primary hull material: wood, steel, aluminium, fibreglass (glass-reinforced plastic or GRP), composite (plastics reinforced with fibres other than, or in addition to glass) or steel-reinforced cement (ferrocement);
- Propulsion system: human-propelled, sails, mechanical;
- Manufacturer: class or series;
- Function: fishing, patrol vessel, rescue craft, etc.; and
- Range: oceangoing, coastwise or inland water.

Ships are generally distinguished from boats based on their size and passenger or cargo carrying capacity. The International Maritime Organisation (IMO) uses the dividing line of 24 metres (m) in length to distinguish small vessels from large vessels, with a vessel longer than 24m typically being classified as a ship. However, some large vessels, such as submarines, river freighters and ferries, are classified as boats. The international convention, Safety of Life at Sea (Solas), divides vessels into two groups: Solas (convention) vessels and non-Solas (non-convention) vessels. Solas vessels, which typically weigh 300 gross tons (a measure of a ship's internal volume and cargo-carrying capacity) and upwards, are bound by the convention's safety standards.

Yachts are classified according to their mode of propulsion, size, style and function. A sailing yacht is propelled by wind and relies on its sails, while a motor yacht is powered by one or more motors. Hybrid While some types of vessels are not intended for recreational purposes, vessels in all categories may be used for commercial activities. Some South African boatyards have expanded their recreational range to include customised "working boats". Working boat applications include:

- The transportation of passengers, such as ferries;

- Commercial fishing;
- Military and maritime security, such as patrol boats, landing craft, interceptors, rescue craft and water ambulances;
- Research vessels;
- Harbour vessels, such as pilot boats, fire-fighting boats, pollution control and customised workboats;
- The delivery of cargo; and
- Crew transfer and supply boats for the offshore oil and gas industry.

Commercial shipbuilding is a designated sector in South Africa and public entities must procure locally- manufactured vessels that comply with local content requirements. They may only award tenders to foreign bidders if there is no local capability or capacity.

Industry Value Chain

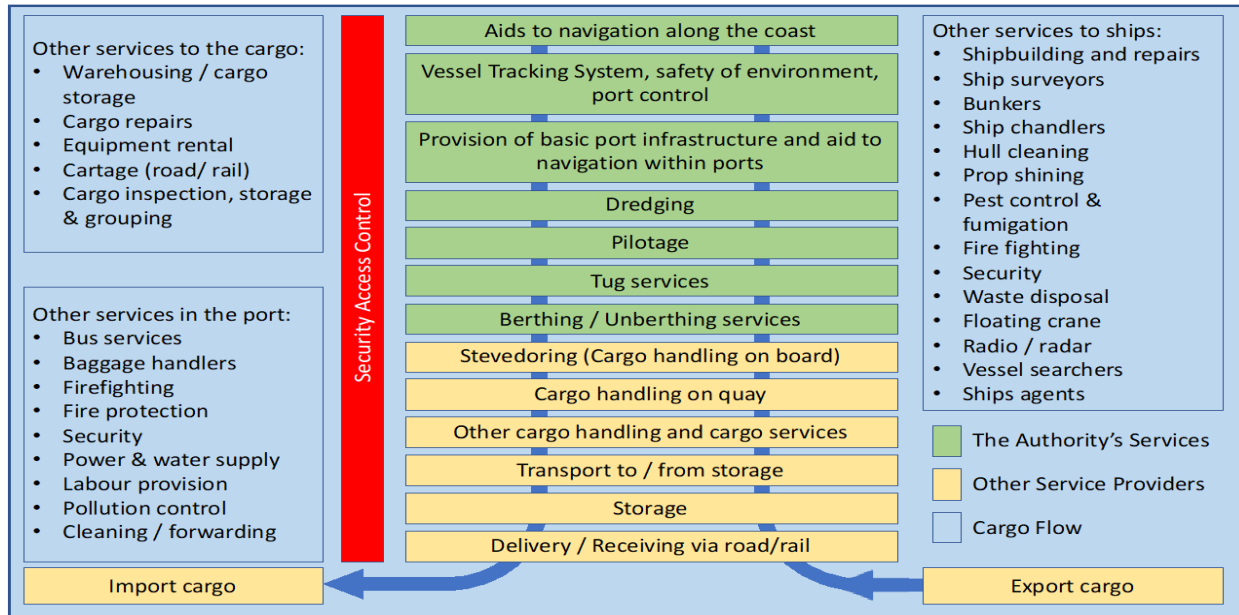
Maritime Transport

The sea, coastal and inland water transport system is a conduit of trade, which supports economic activity in almost all sectors. Players in the industry value chain include:

- Harbour and port terminal operators;
- Customs and excise authorities;
- Shipping lines;
- Shipping charterers, who charter (hire) ships from ship owners;
- Shipping agents;
- Logistics companies;
- Clearing and forwarding agents;
- Stevedoring companies (onboard cargo handling and the loading/unloading of ships);
- Shore handling service providers;
- Ship chandelling companies, which supply and deliver provisions (food and drink), equipment and other supplies;
- Bunkering companies (offshore marine fuel suppliers);
- Warehousing providers;
- Vessel and rig repair yards; and

- Suppliers of marine products and services.

Maritime Services Value Chain



[Source: United Nations Conference on Trade and Development (Unctad)]

Marine Manufacturing

The International Committee for Maritime Industry Associations (Icomia) divides the marine manufacturing value chain into five categories:

- The building of vessels, subclassified according to vessel type;
- The manufacture and trade in engines and engine systems, for example outboard, inboard, cooling and hydraulic systems, mounting equipment, stern gear and propellers;
- The manufacture of and trade in marine equipment and accessories including boat building materials and equipment, boat care products such as paint and resins, boat covers, deck hardware, electrical and electronic equipment, personal gear and hardware;
- Consumer goods and services such as charter/rentals, repairs, maintenance, retail, events management and yacht clubs; and
- Business goods and services, including consulting, design, surveying, training and government agencies.

Given the specialised nature of ship and boat building, where production is project-based and the manufacture of a single vessel may take more than a year to complete, effective supply chain management is essential. Depending on the type of vessel or watercraft, locally-sourced inputs (excluding labour) vary from 35% to 60%. Manufacturers are therefore reliant on

imported components and are highly exposed to exchange rate volatility and global supply chain disruptions.

The marine manufacturing sector exploits cross-sectoral linkages with other industries where synergies exist. These include aquaculture, architecture, construction, interior design and furniture manufacturing, the aerospace and automotive sectors, information technology, communications and electronics, clothing and textile manufacturing, renewable energy and green technologies. For example, in the renewable energy sector, the technical skills and mould-making competencies used in wind turbine manufacturing are used in boat building.

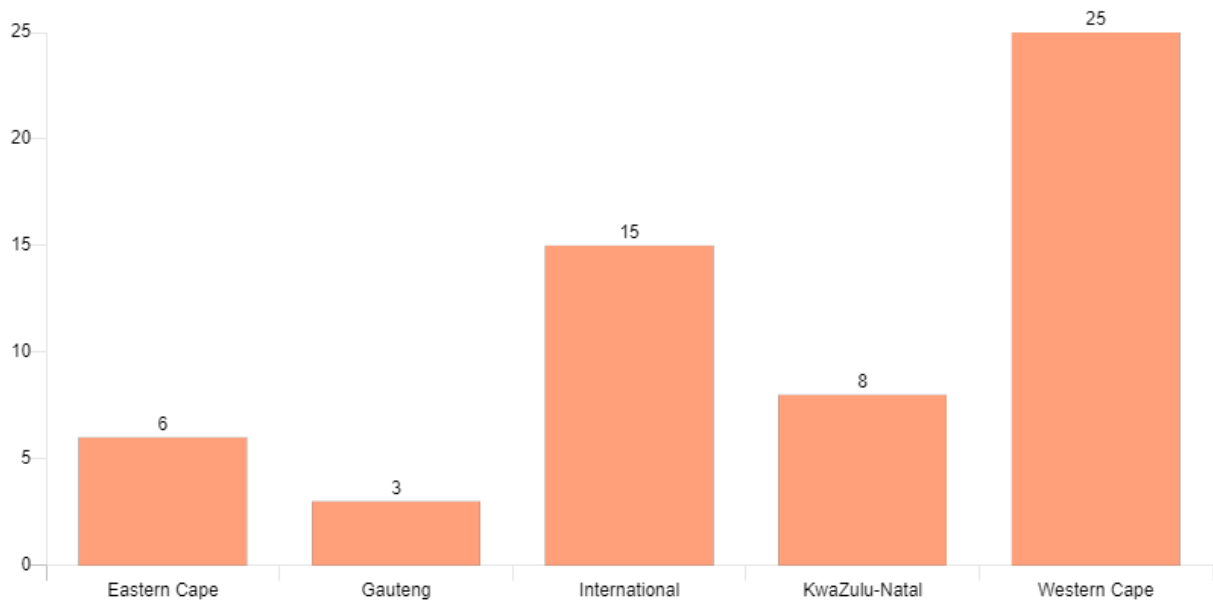
The marine equipment supply chain supplies the following components and operating systems:

- Propulsion/power generation systems, including propellers, diesel engines, steam turbines, gas turbines and related accessories;
- Auxiliary power generating systems, including auxiliary engines and boilers;
- Electrical systems, including generators and control panels;
- Instrumentation, including navigation and control systems, acoustics and navy weapons systems;
- Steering systems, including rudders, steering gear and accessories;
- Operating systems for large vessels; including rudders, thrusters, stabilisers and anti-heeling systems;
- Mooring, deck machinery and cargo systems, including anchors, chains, ropes, winches, cranes, fork-lifts and towing equipment;
- Safety, rescue, and environmental protection systems, including lifesaving equipment, firefighting equipment, rescue boats and lifeboats;
- Communication and audio-video systems, including data processing technologies;
- Air conditioning, including ventilation and heating systems;
- Lighting, including lighting systems and light fittings;
- Accommodation systems, including doors and portholes, walls, frames, staircases, sanitation fittings, furniture, décor and appliances; and
- General outfitting, including glass, railings and catwalks.

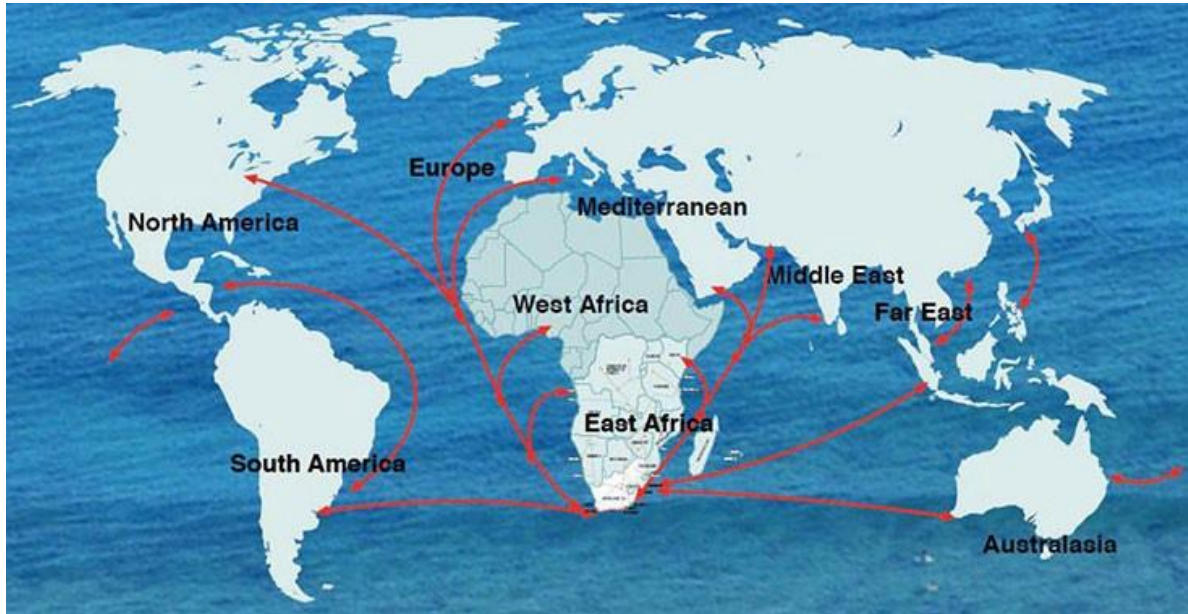
Geographic Position

The provincial distribution of companies profiled in this report is shown in the graph below.

Figure 2: Concentration of Companies Profiled per Province – Registered Head Office



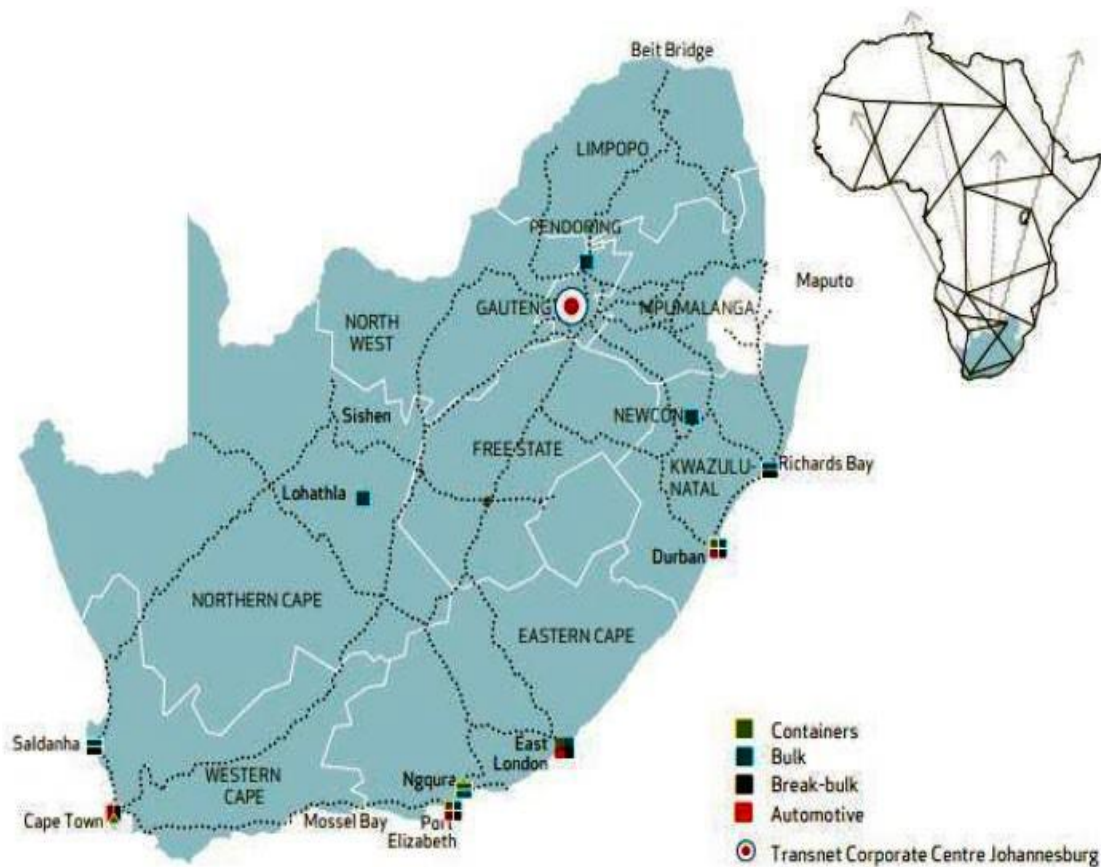
International Trade Corridors



The South African coastline, from Mozambique in the east to Namibia in the west, measures approximately 2,954 kilometres (km). South Africa's territorial sovereignty extends up to 12 nautical miles (nm) offshore. Measuring around 1.5 million square km (km²), the country's exclusive economic zone (EEZ) includes the maritime area and continental shelf located within 200nm of the coastline and also includes the waters surrounding the Prince Edward Islands in the Southern Ocean. Stakeholders describe this vast expanse of marine "real estate" as South Africa's tenth province. Under international maritime law, South Africa controls the exploitation of natural resources and economic activities within its EEZ. In addition to patrolling South African territorial waters, the South African Navy deploys its vessels on a rotational basis in the Mozambique Channel to patrol for pirates. Other threats include the smuggling of narcotics and arms, illegal fishing and poaching, pollution, terrorism and illegal immigration.

National Port Network

South Africa's main commercial ports support domestic, regional and international trade, while providing services and supplies to passing maritime traffic. Multi-modal transportation systems connect South Africa's main ports and terminals to road, rail and pipeline networks.



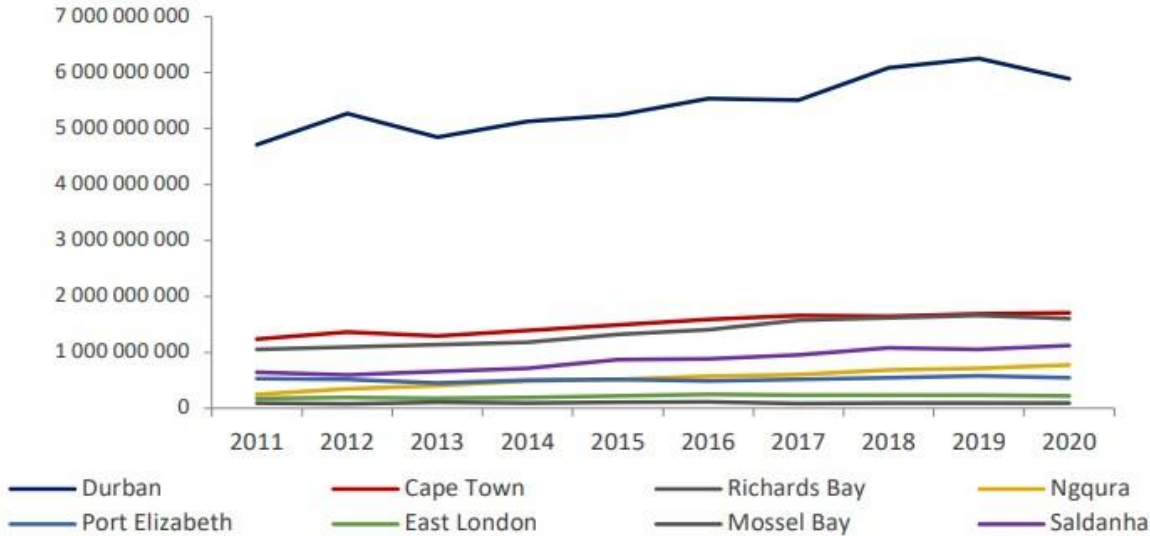
KwaZulu-Natal

- The Port of Richards Bay, one of the largest bulk coal export terminals in the world, handles more than 50% of South Africa's total dry bulk cargo, including coal, wood chips, steel and other bulk commodities. It primarily serves the markets of northern KwaZulu-Natal, Gauteng and Mpumalanga.
- The Port of Durban handles the largest volume of seaborne traffic, has the greatest container capacity of any port in South Africa and has one of the largest sugar terminals in the world. Prior to the pandemic, MSC Starlight Cruises based a passenger cruise liner at the port from where it operated cruises along the South African and Mozambican coastlines and to various Indian Ocean islands during summer. The planned construction of the Durban dig-out port 11km south of Durban's existing port, is scheduled to commence in 2028. On completion of the first phase of the project, Durban's container capacity will increase by 2.4 million TEUs per annum.

KwaZulu-Natal is the second largest marine manufacturing centre in South Africa. SanDock Austral Shipyards, which operates the largest shipyard in the country, is located in Durban.

There are plans to create an ocean sports and yachting hub in Durban, along the lines of the Blue Cape initiative. The Eastern Cape accounts for more than 10% of the country’s boatyards. Production centres include Gqeberha, Ngqura, East London, St. Francis and Port Alfred. Gauteng-based boat builders specialise in inland water vessels. The province’s major manufacturing operations are in Benoni, Walkerville and Randvaal.

Port Revenue Trends: 2011 to 2020



[Source: Ports Regulator of South Africa]

The Port of Durban, South Africa’s largest and busiest port, received 39% of vessel arrivals during the past five years. Its container terminal, which is the largest in sub-Saharan Africa, handled 37% of South Africa’s container calls. In addition to containers, the port handles automotive, dry bulk, liquid bulk and break bulk cargo. It has facilities for marine manufacturing, including ship repair, and can accommodate visiting passenger cruise liners, fishing vessels and recreational boating.

Port of Durban Infrastructure (berths: number, length and draft)¹

Cargo Type	Number of Berths	Berth Length	Berth Draft
Containers	9	2,108m	8.2m – 12.3m
Dry Bulk	9	1,610m	8.6m – 10.8m
Break Bulk	18	3,248m	5.1m -13.7m
Liquid Bulk	9	1,965m	8.7m -12.5m
Ro-Ro	5	1,381m	10.1m – 10.6m

[Source: Ports Regulator of South Africa]

Richards Bay is South Africa’s main coal export hub. Its entrance channel is dredged to a depth of 19.5m and it can accommodate larger vessels. Total dry bulk capacity is 112 million tons and break bulk capacity is 8.2 million tons. A multi-purpose terminal with an installed capacity of 50,000 TEUs handles break bulk and containers.

Port of Richards Bay Infrastructure

Terminal	Number of Berths	Berth Draft	Vessel Size
Containers/Break Bulk	6	14.5m	65,000 DWT
Dry Bulk: Coal	6	19m	150,000 DWT
Dry Bulk: Other	7	14.5m – 19m	65,000 DWT – 150,000 DWT
Liquid Bulk	2	14m	50,000 DWT – 80,000 DWT

[Source: Ports Regulator of South Africa]

SA Government Drive in Port Infrastructure

Stakeholders are hopeful that government's decision to corporatize the National Ports Authority will accelerate the implementation of port infrastructure projects, attract investment, improve efficiency and facilitate the procurement of much-needed equipment. In a media release issued on 22 June 2021, the Western Cape government welcomed the establishment of the TNPA as an independent subsidiary of Transnet, stating that the restructuring of TNPA will provide the private sector with the opportunity to partner with government to improve terminal operations and port infrastructure.

The following infrastructure projects will improve passenger and cargo handling capacity:

- The Durban cruise terminal;
- The six-berth reconstruction at Durban's Maydon Wharf precinct;
- The Maydon Wharf agri-bulk terminal;
- The deepening of berths 203 - 205 at the Durban Container Terminal;
- The expansion of Salisbury Island at Durban by two new berths;
- The deepening and lengthening of the north quay at Durban, which is set to boost annual container handling capacity from 3.5 million to 3.9 million TEUs;
- The proposed construction of a floating dock and two new break bulk berths at Richards Bay by 2032; Plans to improve South Africa's marine engineering/ship repair capacity include the following port infrastructure projects:
 - The upgrading of Durban's dry dock;
 - A floating dock at the Port of Richards Bay;
 - Floating caisson for the Sturrock Dry Dock in Cape Town (intended for underwater hull repairs), pump system upgrades, electrical upgrades at the dry docks, the acquisition of a dry docks crane and the upgrading of the synchro lift;
 - Rehabilitation of a slipway cradle at the Port of Gqeberha;
 - Refurbishment of the dock gate and the replacement of jib cranes at the Port of East London;
 - Upgrading the slipway at the Port of Mossel Bay; and
 - The development of an offshore oil and gas hub offering marine engineering and repair services at the Saldanha Bay Industrial Development Zone (SBIDZ). Port-related

projects are valued at R3.5bn (Phase 1) and include a marine services jetty, floating dock and ship-lift for the SBIDZ's centre zone and a precinct pier and jetty, a mobile hoist, a 220m ship-lift and lay-by jetty for the SBIDZ's south western precinct.

In line with the Operation Phakisa oceans' economy initiative, the Department of Public Works and Infrastructure has invested R500m in the Western Cape's proclaimed fishing harbours. Delivering the department's budget vote on 25 May 2021, public works and infrastructure minister, Patricia de Lille, said that around R500m had been spent on maintenance and repairs at proclaimed harbours in the Western Cape, creating 672 jobs and empowering local SMEs to the value of R61m. The programme is expected to be completed by March 2022, bringing the existing harbours to an 80% operational efficiency level. De Lille said that the Chinese government has made a grant available to conduct feasibility studies for the development of new harbours in KwaZulu-Natal, Eastern Cape and the Northern Cape. The Department of Transport and South African Maritime Safety Authority (Samsa) are investigating the recapitalisation of South African's aging fleet of around 1,400 fishing vessels and Samsa has called for proposals to develop a fishing vessel prototype.

Key Trends

- A greater focus on sustainability, including the use of recycled/recyclable materials and the use of plant-based fibres;
- Increased use of 3D printing;
- Reducing emissions and transitioning to cleaner energy;
- Growing demand for environmentally-friendly propulsion systems and energy storage systems such as solar, hydrogen and electric systems;
- The development of autonomous (self-drive) and semi-autonomous vessels;
- New generation harbour tugs need to be powerful and more manoeuvrable to handle mega container ships; and
- Growing interest in amphibious vessels that can be used on land and in the water.
- The Cape Town cruise terminal;
- The planned construction of a manganese terminal at Ngqura; and
- The construction of tank farm berth B100 at Ngqura.

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