Growing a Sustainable Oceans Economy in South Africa, While Expanding Marine Conservation

2022

LESSONS FROM SALDANHA BAY MUNICIPALITY

CONSERVATION SOUTH AFRICA
Member of the CI Network

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Summary: Key Findings

1. In the Saldanha Bay Municipality, the contribution of ocean and coastal ecosystems to local industry and economic growth is significant, but the **protection of these resources** is **not a key priority** for all stakeholders who are dependent on the long-term sustainability of marine resources.

2. Without **sustainable biodiversity conservation** of Langebaan Lagoon and Saldanha Bay and their ecosystems, the economic, social, and cultural value of the area would be greatly diminished.

3. There is **no explicit link** between the **development** of South Africa's Oceans economy and **conservation** of marine resources in the area.

4. **Climate smart economic growth** that protects and/or restores natural ecosystems while supporting sustainable production is key for unlocking economic opportunities from the marine natural resource base. For example, **renewable energy from oceans** (wave, tidal, thermal), could enable a switch from, or compliment, the current and largely coal-based sources.

5. **Innovative Financial Instruments** could unlock new financial investments, improved planning and increased integrated environmental monitoring and implementation, for example, conservation levies generated from tourism in the area.

6. **Natural Capital Accounting (NCA)** for Saldanha Bay Municipality's marine resources that is integrated into national accounts and budgets will enhance planning for the area and **help unlock future funding**.

7. The **Integrated Development Zone** is one of the biggest opportunities in the Saldanha Bay Municipality since it is still under development and **could provide sustainable economic development opportunities** that are environmentally sound.

8. Building a **skills base** premised on **climate smart careers, maritime industries and marine protected areas** is critical for sustainable economic development for the area and to maintaining a healthy ecosystem. For example, the fishing community who are dependent on a depleting resource could be re-skilled for a more diversified Oceans economy.

9. **Perceived threats and real threats** in the larger area need to be assessed and communicated widely to guide the way forward for the area. A few examples of such threats include air pollution from red dust, green ship recycling impacts, power ships, and invasive species.

1. Introduction: Economic opportunities and challenges provided by Oceans and Coasts

Healthy oceans provide food security, sustain economic growth, regulate the climate, and provide livelihood opportunities for coastal communities. South Africa's oceans and coasts[1] offer huge opportunities for economic development, which could reduce poverty and unemployment. However, this must be done in an integrated way that allows for management of competing resources but also conserves, protects and restores ocean health to ensure a sustainable ocean economy where the opportunities and benefits are available in the long-term. So far, the country has not taken full advantage of this untapped vast ocean resource and the immense potential it presents.

South Africa is party to both the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity which includes commitments for both terrestrial and oceans protection. South African's Ocean Policy objective is to develop the Oceans economy while protecting the integrity of marine ecosystems (Republic of South Africa 2014a). Successful implementation of this objective could allow a complete shift from sectoral to coordinated management of oceans and coasts, optimising sustainable economic and environmental investment opportunities (*ibid*). Operation Phakisa, launched in 2014 by the president, is the South African government-led blueprint programme for operationalising and bringing the Oceans economy into play.

The programme estimates that the oceans and coasts have the potential to contribute up to R177 billion to the country's gross domestic product (GDP) and to create up to one million new jobs by 2033. Through proper planning and public-private partnerships, potential exists for unlocking investment into the Oceans economy based on the sustainable management and protection of this natural and cultural heritage.

Unfortunately, the unsustainable use of South Africa's oceans and coasts is undermining ocean health and long-term economic viability. Some of the observed threats include unsustainable fishing levels and methods, diamond mining, mining of coastal dunes, and climate change (Wepener and Degger 2019; Breetzke et al. 2016). In addition, oceans and coasts are spaces where policies and regulatory frameworks are interconnected and overlap, and where use and user conflicts are increasing. Conflicts could, for example, arise due to fisheries and tourism being put under stress from increased shipping in the same area. Conflicts also arise where, for example, small-scale fishers' economic activity is limited within Marine Protected areas. Such challenges frustrate all stakeholders, ultimately limiting the ambitions of ocean economy objectives and the conservation of the marine resources on which they depend.

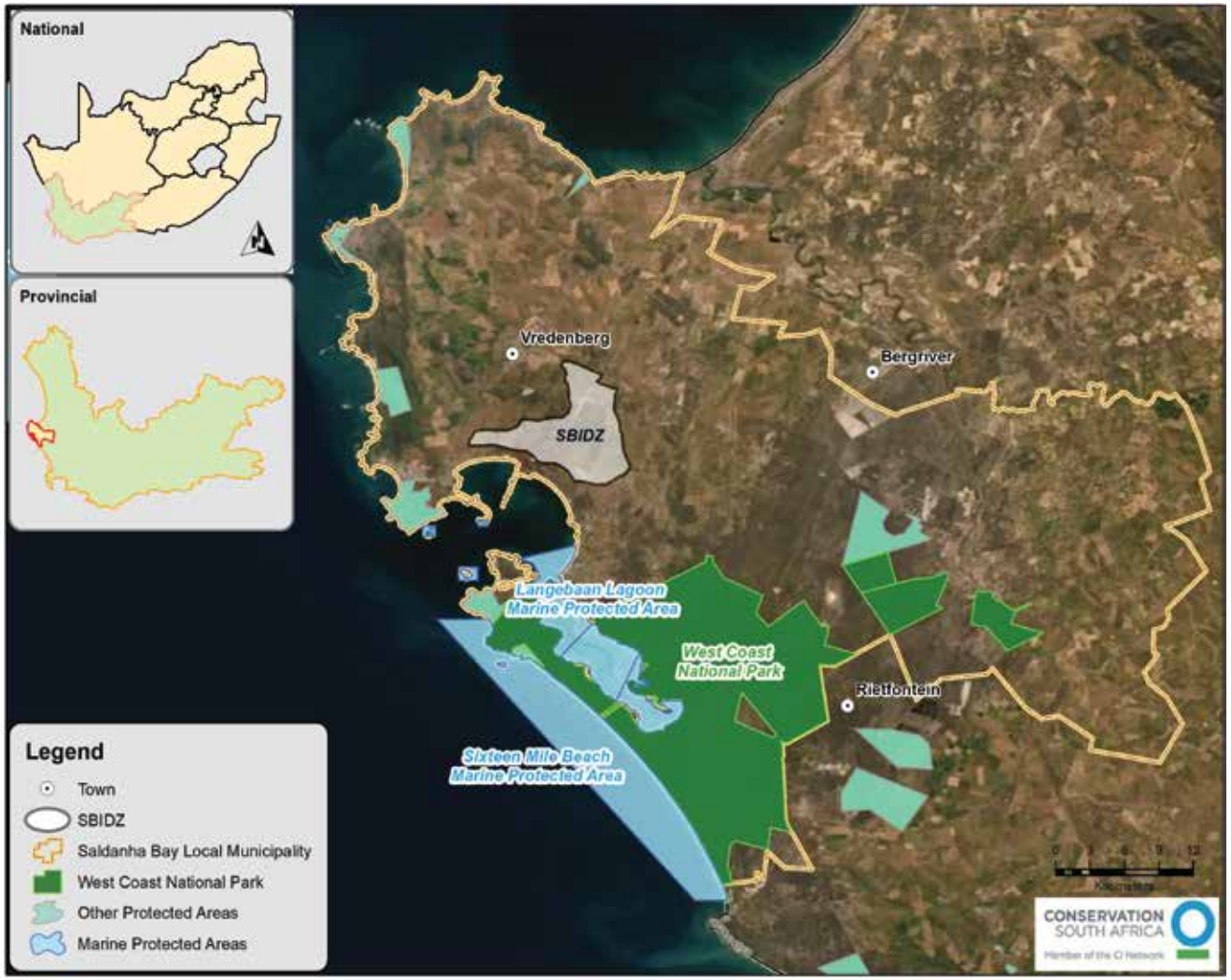
Climate change is also a further limiting factor for the Oceans economy, indeed the number of climate-related disasters has tripled in the last 30 years[2]. In South Africa, climate change is already affecting fish species and their availability in certain areas and storm surges have also created a lot of coastal damage (Jarre et al. 2013; Watermeyer et al. 2016). The United Nations Environment Programme also estimates that, by 2030, adapting to climate change and coping with damages will cost developing countries $140-300 billion per year[3]. This has further potential economic effects in a country that is already experiencing high poverty and levels of inequality.

Integrated Marine spatial planning and implementation of Marine Protected Areas can however safeguard South Africa's important marine biodiversity and contribute to a sustainable blue economy. For example, by protecting essential fish habitat, contributing to coastal tourism, protecting coastal development against storm damage, and creating alternative or more sustainable livelihoods.

Long term plans for Ocean and Coastal economic growth in South Africa must continue to prioritize Integrated Coastal Zone Management (ICZM)[4] and Marine Spatial Planning (MSP)[5] with a strong emphasis on unlocking opportunities for innovative finance and collaboration in areas of competing/overlapping interest, and the promotion of equity and sustainability of benefits across generations. The Department of Forestry, Fisheries and the Environment is also developing future strategic plans for Oceans and Coasts which can provide further policy and strategic guidance for the Oceans Economy.

[1] South Africa has a coastline of 3,900 km long (Antarctic islands included) that translates into an Exclusive Economic Zone of 1.5 million km^2 - a 200 nautical mile area of a country's coastal waters and seabed, to which the country has claimed exclusive rights for exploitation of marine resources under the 1982 United Nations Convention on the Law of the Sea (Republic of South Africa 2014a).

2. Case study approach



The **Objectives** of this case study are to:

1. Explore ideas for recognising the blue economy opportunities while protecting the marine and coastal ecosystems and species upon which such opportunities depend.

2. Identify key stakeholders whose collaboration and approach will ultimately define the outcomes of opportunities and threats in this space.

The choice of Saldanha Bay and Langebaan Lagoon as the case study area was based on its unique characteristics as a microcosm of broader trends and opportunities in the Oceans and Coasts sector.

The area is a site where tourism, shipping, mining, industry, aquaculture, fishing, fish processing and conservation co-exist alongside globally recognised areas of marine and terrestrial biodiversity. It is an area where a thriving and sustainable Oceans economy intersects directly with conservation, poverty, and unemployment.

Therefore, the issues, opportunities, and challenges of working in the oceans and coasts arena come together in this small geographic and social-ecological area and are representative of some of the broader issues facing South Africa.

[2] ci-green-gray-practical-guide-v08.pdf (conservation.org)

[3] Oxfam International (2020). 5 natural disasters that beg for climate action: https://www.oxfam.org/en/5-natural-disasters-beg-climate-action

[4] Dynamic, multi-disciplinary and iterative process for promoting inclusive sustainable management of coastal zones which covers information collection, planning, decision-making, management, and implementation monitoring by all stakeholders (Banica et al. 2003; Cicin-Sain & Knecht 1998): https://www.eea.europa.eu/help/glossary

[5] Public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives that have been specified through a political process (IOC-UNESCO 2017; Republic of South Africa 2014b): https://ioc.unesco.org/our-work/marine-spatial-planning

3. Saldanha Bay Port and Industrial Development Zone, Fisheries and Aquaculture, West Coast National Park, and Saldanha Bay

A description of the Saldanha Bay Port and Industrial Development Zone; local fisheries and aquaculture activities; the West Coast National Park and the Saldanha Bay Municipality are used to present the case for sustainable use of oceans and coasts biodiversity and to illustrate the opportunities and challenges that the use of marine biodiversity present for economic development in South Africa.

The Transnet Youth Employment Services (YES) Hub **(Box 1)** and the Saldanha Bay Water Quality Forum Trust (SBWQFT; **Box 7**) are also showcased as examples of organisations whose roles and activities provide key support and ancillary activities towards the operationalisation of the Oceans economy and the conservation of marine biodiversity. Other boxes provide additional information on the area, or programmes outside the area, that provide learning.

3.1. Saldanha Bay Port and Industrial Development Zone

Saldanha Bay Port is the largest and deepest natural port in the Southern Hemisphere (with berthing depths up to 21.5m) and is the only Freeport in South Africa. For the 2020-21 year, the port contributed R1.1 billion to South Africa's GDP (and R893 million to the Western Cape Province's gross geographical product). The port supported 1,644 jobs in the Western Cape (contributing to 1,960 jobs throughout South Africa), of which 745 were direct because of the activities of the Saldanha Bay Industrial Development Zone (SBIDZ), and a further 898 from indirect and induced effects in the province. As a result, Saldanha Bay is declared an Industrial Development Zone (IDZ)[6].

South Africa's Ocean economy planning also confirmed Saldanha Bay as an economic development node (Government of South Africa, 2014b). These developments have created expectations for job creation and business opportunities within the community, which could be achieved by identifying opportunities for local empowerment that the IDZ and the development node can offer. The SBIDZ mission is 'Fostering responsible investment, and catalyzation of inclusive and sustainable economic development'. Its vision is to become a 'World-Class Oil and Gas and Maritime Services Centre and Shipyard in Africa'.

Box 1 The Transnet Youth Employment Services Hub

The Transnet Youth Employment Services Hub (The YES Hub) is a facility used for facilitating skills development for youth (ages from 18 to 34), and provides access to innovation and technology.

The Hub offers training in:

- commercial drone pilot and repair;
- chef training and entrepreneurial incubation with live restaurant running;
- hydroponic and aquaponic farming and produce marketing; and
- specialised digital learning programmes.

It also offers training in marketing, financial accounting, and business plan development for small business owners. Since the trainees are paid a wage, the Hub is making a positive impact not only on these youth, but also their extended families, since most of them are bread winners. In April 2022, the Hub hosted 62 youth. The Hub also offers free training to the community in Microsoft, digital literacy, entrepreneurship (Siyazakhela) and financial focus.

Visit their website: https://yes4youth.co.za/hubs/

SBIDZ has:

- created **2,911 jobs** over the last 5 years;
- attracted over **R21 billion in investments**;
- **leased** approximately **18% of its gross area**;
- **signed a Labour Charter** with the Congress of South African Trade Unions (COSATU) and The National Union for Metal workers South Africa (NUMSA) for equitable labour relations;
- offered **skills training to over 2,300 beneficiaries** in 4 years;
- spent over **R200 million** (~35%) on local subcontractors; and
- initiated a **High Schools' Development Programme** with the Western Cape Education Department (WCED) and the universities of Stellenbosch and the Witwatersrand.

3.1.1. Threats

- Currently the SBIDZ is operating under a 4-year grant/loan from provincial government. This period will end in March 2023. As a result, the SBIDZ is under increasing pressure to expand its operations and source private funding.

- The SBIDZ has attracted significant investment but is only operating at 18% capacity and can expect a significant ramp up in activities. This presents opportunities for job creation, but the local skills base is not directly aligned to the opportunities being created.

This potential mismatch could result in social unrest if labour is brought in from elsewhere to meet the needs of enterprises in the port.

- The SBIDZ is still working on ways to integrate environmental considerations into its growth plans as well as consideration of how to incorporate the protection or restoration of the surrounding terrestrial ecosystems into the individual plans of the enterprises housed within the SBIDZ.

- Proposed activities, such as ship recycling, could involve the generation of a huge amount of waste whose disposal could threaten the very ecosystem on which the SBIDZ depends for long-term growth[7].

- Climate change is already impacting the industries located within the SBIDZ. Therefore, additional considerations are needed for the design of green-grey infrastructure, and long-term climate projections for the area.

- More than 95 alien marine species have been brought into South Africa. Whilst over half are contained in harbours, there are many that are spreading into natural habitats. Langebaan lagoon has been identified as having the highest number of alien species of all the MPAs along the west coast (nine species[8]). Their long-term impact on local ocean and coastal ecosystems is not yet fully understood.

- There is an urgent need to ensure that newly developed port related activities contribute positively to the overall economy of the area and do not cause harm to the ecosystems on which the Tourism and Fisheries sectors depend.

3.1.2. Opportunities

- As a Special Economic Zone (SEZ) the SBIDZ offers a platform for global exports through the attraction of both foreign and local investment.

- Being strategically located in the deep-water port of Saldanha Bay, the IDZ allows easy access to worldwide shipping routes and road linkages to the Saldanha-Northern Cape Logistics Corridor and beyond.

[6] As a way of repositioning the country, the South African government established the Special Economic Zones (SEZ) programme (of which the SBIDZ is one) (Government of South Africa 2014), which represents geographically designated areas set aside for specifically targeted economic activities that are supported through special arrangements related to 'ease of doing business'. The programme activities are closely linked to Operation Phakisa.

[7] The proposed ship recycling activity planned in the IDZ is aimed to be a "green" facility, complaint with the EU Regulations for Green Ship Recycling and the Southg African Department of Environmental Management Act No 59 of 2008 but the impact of this process still needs to be assessed for this area.

[8] https://link.springer.com/chapter/10.1007/978-3-030-32394-3_9#Sec5 (Robinson et al. 2020)

• As a Freeport and SEZ, it offers various incentives, including custom control area benefits to all qualifying investors.

• With 356 hectares of secure and serviced industrial land, SBIDZ offers investors sites ready for immediate occupation, or tailor-made infrastructure solutions with flexible lease and utility options.

• It has a dedicated business unit and offers a Marine and Energy Sector Innovation Ecosystem.

• Waste from industrial activities could provide business opportunities through 'Wastepreneurs' programmes. For example, small businesses can be developed to help reduce/recycle/collect/reuse waste and work collaboratively with municipalities to build entrepreneurs.

The SBIDZ offers one of the biggest economic opportunities in the Saldanha Bay Municipality since it is still under development. In this context, there is still chance to influence the way that the incentives are structured. Specifically, incentives should aim to increase and protect marine biodiversity in the SBIDZ by stimulating sustainable investment and funding, and promoting jobs through collaboration with surrounding youth and skills development programmes. To date, the SBDIZ has sourced more than R60 million for skills development from SETA (Sector Education and Training Authority), the DTIC (Department of Trade, Industry and Competition) and the private sector. These have enabled the SBIDZ to create 2450 training opportunities.

3.2. Fisheries and Aquaculture

The Benguela ecosystem on the west coast of South Africa is one of the most productive ocean ecosystems in the world in terms of biomass production and fishery resources per unit area due to the upwelling of cold, nutrient rich water. This has enabled the establishment of a well-developed industrial fishery (South Africa was the third largest capture fisheries producer in Sub-Saharan Africa after Mauritania and Nigeria in 2018[9]) mainly based on the exploitation of small pelagics (sardine - *Sardinops sagax* and anchovy - *Engraulis capensis*) and hake (*Merluccius capensis*). As a result, most of South Africa's canning and fishmeal factories were built in the Saldanha Bay Municipality.

Until the promulgation of the small-scale fisheries Policy in 2012 and the formal recognition of the sector through the 2014 inclusion in the Marine Living Resources Act through an amendment[10], small-scale fisheries was not a legally recognized sector. This has had severe impact on some of the inshore high value species such as Abalone and West Coast Rock Lobster as a result of rampant poaching by disgruntled small-scale fishers.

Fisheries (industrial and small-scale) are managed through quotas. While these have been annual quotas, government has shifted to medium and long-term rights, which has improved planning for the rights holders. The inequitable allocation of rights between industrial and small-scale fishers remains an issue.

Although sardine and anchovy have a migratory life history pattern between the Agulhas Bank on the South coast (to breed) and the West coast (to grow), there appears to be a change in this stable cyclic life history pattern (Watermeyer et al. 2018) as a result of heavy fishing pressure on the west coast, and/or environmental changes such as increased upwelling east of Agulhas and additional climate related changes in the system (Watermeyer et al. 2016, 2018). The relative abundance of the two species has subsequently declined on the west coast and increased on the south coast (*ibid*).

The West Coast has also been the main production area for the West Coast Rock Lobster (*Jasus lalandii*). Mussel farming in South Africa is principally conducted in Saldanha's Big Bay. Established in 1985, the species being cultured are the non-native Mediterranean mussel (*Mytilus galloprovincialis*) and the indigenous black mussel (*Choromytilus meridionalis*) using raft culture techniques. There are plans for expansion of these farms.

3.2.1. Threats

• The ecological system appears to be in a very bad state, to the extent that its resilience to large-scale change appears to have been critically compromised (Jarre et al. 2013).

[9] https://data.worldbank.org/indicator/ER.FSH.CAPT.MT?locations=ZG

[10] Act No. 5 of 2014: Marine Living Resources Amendment Act, 2014, To amend the Marine Living Resources Act, 1998,

Box 2 ABALOBI

One of the challenges faced by small-scale fishers is the problem of adding value to their catches and linkage to more lucrative markets and value chains. ABALOBI is a South African-based, global social enterprise which aims to contribute towards thriving, equitable, Climate Change resilient and sustainable small-scale fishing communities through the joint development of technology for a good cause. An Information and Communication Technology company, ABALOBI's modular technology ecosystem, including fisher-to-marketplace and monitoring solutions, are packaged as a software service. This approach is based on a suite of fisher-driven Electronic Catch Documentation and Traceability (eCDT) technologies that relate to data empowerment, seafood traceability, full documentation of fisheries, fair and transparent supply chains, community cohesion, entrepreneurship, and promotion of digital and financial inclusion of communities. Many of the local fishers are being integrated onto this platform, including those from Langebaan Lagoon. Such technological inclusion and empowerment of communities is expected to result in a transition towards ecological, economic and social sustainability for fishing communities that are part of this platform.

Visit their website: http://abalobi.org

• In the last five years, the total biomass of sardine has nearly crashed overall, with the Total Allowable Catch has reduced to as low as 12,500 tonnes in 2019 from the normal year averages of over 140,000 tonnes. This has resulted in a loss of jobs both among vessel crewmembers and factory workers.

• Until 2012 when the Small-scale Fisheries Policy was promulgated, capture fisheries had only two distinct sectors – industrial/commercial fisheries and recreational fisheries. Thus, the distribution of rights has largely remained skewed against small-scale fishers. A problem arising from dissatisfaction with the allocation of rights among small-scale fishers and a lack of involvement in distributive and management decision-making is that, generally, small-scale fishers tend to ignore the regulations and resort to poaching.

• Some of the main target species for small-scale fishers, for example West Coast Rock Lobster and Harders, are heavily depleted due to overfishing and adverse environmental conditions including the impacts from climate change. West Coast Rock Lobster is estimated at less than 1.5% of the population (biomass) of its 1910 pre-fished levels (DFFE 2021).

3.2.2. Opportunities

• The small pelagic industry has dealt with the variability in fisheries by consolidation, diversification, and range expansion (Jarre et al. 2013; Watermeyer et al. 2016).

• The decline in sardine in South African waters has resulted in raw fish being imported for canning, which has enabled the maintenance of the canning industry in South Africa.

• Small-scale fishers believe that if they were included and genuinely involved in decision-making processes concerning fishing rights and management of (their) marine resources, they would practice sustainable fishing and improved fisheries management. This is evident where they are using platforms such as www.abalobi.org (**Box 2**).

• The skills levels in the fishing industry are higher than in many primary sectors, with the majority of those employed (including onshore support) occurring in the skilled (21%) or semi-skilled (71%) categories. Opportunities for use of these skills in other sectors can be assessed and integrated into additional enterprise development opportunities that supports the sector.

Box 3 Summary Status on Saldanha Bay and Langebaan Lagoon ecosystem

Marine ecosystems off the West Coast are in a highly threatened state due to lack of formal protection (DEADP 2016). The entire Saldanha Bay area (i.e., Big Bay, Small Bay, and Langebaan Lagoon) is classified as **Vulnerable** (DEADP 2021), which is attributed to human activities such as diamond and petroleum mining, pollution, trawling, coastal developments, and introduction of alien invasive species mainly through shipping activities.

Langebaan Lagoon (including the inshore islands Marcus, Malgas and Jutten) was declared a Ramsar site in 1988, particularly for the protection of waterfowl. It supports thousands of Palaearctic migrant birds seasonally, is an international bird area, and has been identified as the most important wetland for waders on the West Coast of Southern Africa. The near shore islands are important for Red Data listed seabirds. At least 11 species are known to breed there, including the African Penguin (a Red Data species), and the rare and endemic African Black Oystercatcher. The Lagoon has a rich marine fauna of more than 400 species, of which six have been classified as **Vulnerable** and seven as **Rare**. It is one of the only two known habitats for South Africa's most endangered marine mollusc (*Siphonaria compressa*) which occurs in the eelgrass (*Zostera capensis*) beds. The Langebaan Lagoon and Saldanha Big Bay provide habitat for white stumpnose (*Rhabdosargus globiceps*), an endemic species to Southern Africa, which is under significant fishing pressure.

Visit their website:
https://www.westerncape.gov.za/eadp/files/atoms/files/GreaterSaldanhaRSIFDraftEMFApril2017.pdf

3.3. Langebaan Lagoon and the West Coast National Park

Langebaan Lagoon is the only non-estuarine tidal lagoon in South Africa and contains 32% of South Africa's saltmarshes. Most of the lagoon has been zoned and declared a Marine Protected Area (MPA)[11] and a Ramsar site. The MPA is part of the West Coast National Park (WCNP). The Lagoon supports recreational fishing and a subsistence fishery[12]. Located between Saldanha Bay and the WCNP is Langebaan Town, which has flourished in the last two decades owing to the tourism linked to the lagoon and economic growth linked to the Port and the IDZ. The town has experienced a huge increase in residential or holiday homes, hotels, and guest houses, sunbathing on beaches and water sports.

The key conservation areas of WCNP are the Langebaan Lagoon MPA and the MPA islands (Jutten, Marcus and Malgas) offshore of Saldanha Bay, altogether which form the Langebaan Ramsar site. The lagoon has a rich diversity of marine invertebrates and seaweeds and supports approximately 10% of the coastal bird wader population in South Africa. The offshore islands provide important nesting areas for several red-listed seabird species. The lagoon also contains important salt marshes and sea grasses (30% of the country's seagrasses) with important blue carbon opportunities[13], as well as algae and mussels that provide significant economic opportunities.

The WCNP is the centrepiece of the ecological biodiversity-driven economy of Saldanha Bay and Langebaan Lagoon. Therefore, managing the lagoon is key to the economy of the area. Without the lagoon and its quality and quantity of water being maintained to support marine life and human activities, the value of the area as a tourist destination and human settlement would be greatly diminished.

3.3.1. Threats

- Pollution from industrial activities and human activities, Illegal, Unreported and Unregulated (IUU) fishing, and uncontrolled growth of activities on and around the Lagoon and Bay are directly impacting the marine ecosystems on which they depend (**Box 3**).
- SANParks experiences a number of challenges regarding management of the WCNP, including inadequate staff, high staff turnover and a lack of equipment.
- Inadequate funding for management of the WCNP is one of the major threats which means that monitoring, control and surveillance, and park development activities are not adequately undertaken.
- The lagoon's water is fed and replenished by aquifers, specifically the Elandsfontyn Aquifer. Municipalities and farmers are increasingly abstracting water from aquifers which could negatively impact the lagoon.

[11] Small-scale fishers that have historically and traditionally fished in the lagoon had successfully challenged the prohibition of fishing in the MPA as a 'no-take zone'.
[12] Mariculture (for mussel and oyster farming) is practiced in the Saldanha Bay.
[13] Climate Change and South Africa's blue carbon ecosystems. Water Research Commission Report No K5/2769 (Adams et al. 2019).

3.3.2. Opportunities

• Involving the surrounding stakeholder community would enhance the link between conservation and biodiversity (offered by both the WCNP and the MPA) and economic growth. The Greater Kruger Strategic Development Programme is an example of where and how this has worked (**Box 4**).

• If a similar strategic programme was implemented, it could link park planning to Saldanha Bay Municipal planning and economic development. This can leverage finance for the ecological and biodiversity benefits accruing from the WCNP to the municipality and ensure the long-term sustainability of local tourism and property sectors. *The assumption and understanding would be that the WCNP is a key driver of economic development for the municipality and, therefore, needs to benefit from economic development in an integrated fashion.*

• Computation of the Natural Capital Accounting (**Box 5**) for the area could further clarify the value that the area has to offer in terms of potential economic investments.

• Conservation finance opportunities can generate income for the area, such as via blue carbon opportunities and conservation levies (**Box 6**). Seagrasses are increasingly being recognized as having higher carbon storage potential than Mangroves.

Box 4 The Greater Kruger Strategic Programme

The Greater Kruger Strategic Development Programme (GKSDP) is a replicable, regional land use planning and management model, providing a methodology to better direct programmes and to leverage strategic partnerships in support of sustainable conservation economy outcomes.

The GKSDP brings together government, communities, civil society, and the private sector to unlock a collective vision for the Greater Kruger landscape. This involves addressing challenges outside of the Protected Area that impact on its integrity, such as unemployment, provision of basic services, and crime while protecting the natural capital within the Protected Area. Through this integrated landscape-based approach, the GKSDP ensures that important environmental services are secured and support associated economies. This approach requires co-operative multi-sectoral partnership approaches in pursuit of sustainable environmental and socio-economic outcomes.

3.4. Saldanha Bay Municipality

The Saldanha Bay Municipality's ***vision*** is 'to enable a future of prosperity for all through effective and objective promotion of service excellence' through rendering of superior service, effective and efficient execution of its mandate, responding to peoples' needs and promotion of a consolidated and team approach when addressing challenges. The municipality has witnessed an economic and property boom in the last decade. The former as a result of increase in tourism linked to the Langebaan Lagoon and West Coast National Park as well as the industrial development in the area (e.g., the Saldanha Steel and the IDZ).

The property boom is related to tourism (guesthouses, hotels, and holiday homes) and retirement homes. An increase in remote working, brought about by the COVID-19 pandemic, has also led to an increase in semi-permanent to permanent migration by people from the cities into the area.

Box 5 Natural Capital Accounting

Natural Capital Accounting (NCA) refers to the use of an accounting framework to provide a systematic, reliable, and comparable way of measuring and reporting on stocks and flows of natural capital. The stocks and flows are of individual environmental assets or resources (e.g., water, minerals, energy, timber, fish), as well as ecosystem assets and ecosystem services. StatsSA and SANBI have developed and published a 10-year strategy for advancing NCA. The strategy's purpose is to focus on developing priority natural capital accounts that could inform South Africa's sustainable development policy objective and to ensure that NCA is widely used to provide credible evidence for integrated planning and decision-making. NCA uses the 'System of Environmental-Economic Accounting (SEEA)', which is an internationally agreed accounting system, a global standard developed by the United Nations Statistics Division for measuring a country's natural assets and resources and tracking their state over time. This could provide decision-makers with a clearer picture of the extent and condition of a country's natural assets and the benefits that flow from them, and provide evidence of the links between the economy, people and the environment. The SEEA Ecosystem Accounting constitutes an integrated and comprehensive statistical framework for organising data about habitats and landscapes, measuring the ecosystem services, tracking changes in ecosystem assets, and linking this information to economic and other human activities.

The municipality facilitates investment and economic development in the area through execution of its mandates and responsibilities, such as by conducting Environmental Impact Assessments, evaluating and approving Land Use Applications and approving Building Plans. The municipality is also responsible for drafting environmental policies, public education and awareness raising. The municipality has the mandate to support an integrated approach to sustainable development.

3.4.1. Threats

• COVID-19 resulted in a drop in visitors to the area, thereby negatively impacting tourism (a key sector) and the general local economy.

• The closure of Saldanha Steel (which resulted in the loss of about 1000 jobs) and the decline in fish productivity on the west coast (the most productive fishing area) has negatively impacted the local economy.

• Increased unemployment has resulted in an increased prevalence of robberies, alcohol, and drug abuse.

• The municipality mainly gets its water supply from the Western Cape Water Supply System (WCWSS), which obtains its water from the Berg River. Water scarcity in the Berg River system is now at an alarming level due to increased abstractions and utilisation by different sectors. Climate modelling indicates that declining rainfall in the Western Cape over the longer term (30-50 years) will generally increase scarcity of available surface water in the region.

• Although Further Education and Training (FET) colleges offer courses in technical training (e.g., hospitality, mechanics, welding), these do not match with industry needs and requirements in the area, resulting in higher levels of skill-trained young people who cannot find jobs.

• Cumbersome building regulations, and alternative energy regulations are hampering economic development.

Box 6 Conservation Finance ideas for the Saldanha area

Direct revenues for conservation:

1. Providing Climate finance through Blue carbon in terms of Seagrass, Algae and Kelp. The lagoon, for example, is home to 30% of the country's seagrass biomass.
2. Generating conservation levies from adventure sports using the lagoon (kites, fishermen, divers).
3. Increasing the Park revenues through improved advertising and the sale of ecofriendly items in a Park shop.
4. Increasing linkages between the booming residential property market and a potential "destination protection fund" for the lagoon.

Indirect economic opportunities for conservation:

• Opportunities for upskilling youth from the local community while improving infrastructure and cost of doing business in the park. For example, placing the YES Hub youth into a range of work experiences every year that support maintenance and restoration of the park is one such solution.

• Skills further developed into enterprise developments that sustain the conservation of natural resources in the area, e.g., alien clearing teams or tourism enterprises.

• Enterprises can additionally be supported by loan facilities such as through Conservation International Ventures (CIV). https://www.conservation.org/projects/conservation-international-ventures-llc

3.4.2. Opportunities

• COVID-19 has resulted in many people working from home, which has caused a residential property boom in the area.

• People are utilising alternative energy sources, particularly due to the expensive and unreliable national electricity supply (i.e., loadshedding).

• There is an intergovernmental task team to promote and facilitate joint decision-making, problem-solving and synergistic intergovernmental relations.

• The Saldanha Bay Water Quality Trust (**Box 7**) is an excellent platform for integrated marine and terrestrial planning that ensures environmental integrity that can be linked further with economic development opportunities.

Box 7 Saldanha Bay Quality Forum Trust

The Saldanha Bay Water Quality Forum Trust (SBWQFT) is an NGO, governed by a board of trustees, and voluntarily funded by industries operating within the Saldanha Bay Municipality. The SBWQFT promotes and assumes responsibility for maintaining the health, diversity, sustainability, and productivity of the marine and coastal ecosystems of Saldanha Bay and Langebaan Lagoon. The organisation was established to implement a comprehensive and overall water quality monitoring programme, to implement planning for coping with potential environmental disasters, to co-ordinate and uphold the environmental integrity and well-being of Saldanha Bay and Langebaan Lagoon, and to promote full compliance with national environmental legislation by all parties. In this context, the organisation receives and evaluates monitoring information from the Saldanha Bay and Langebaan Lagoon on effluents, marine water quality, avifauna, sediments, and ecosystem health. Using this information, it creates platforms for discussion and mutual consent on the limitation and remediation of negative impacts on water quality and the marine ecosystem.

Visit their website: https://sbwqft.org.za

4. Opportunities for optimising conservation and the Oceans Economy in the Saldanha Bay Municipality

The operationalisation of a sustainable Oceans economy assumes that a healthy marine ecosystem is good for business, and conversely, that robust economies can be good for nature when managed in harmony with each other. Therefore, growth would only be sustainable and optimal if practiced and undertaken within the limits that nature can sustainably withstand in terms of direct and indirect utilisation. The key question is: **'How do the threats and opportunities affect or influence the municipality's ability to guide spatial planning to support economic development and conservation objectives within the area?'**. The municipality could use currently available planning tools to guide their strategy and build resilience. It is also up to stakeholders including individual companies, cooperatives, and fishers to take up and use opportunities for their benefit. These could involve working together to drive forward and achieve their goals. In this context, some ideas that could be pursued are as follows:

1 Investment incentives

The SBIDZ is still in the early stages of growth, providing an opportunity to influence investment incentives in such a way that they align to ecological biodiversity, environmental protection, and climate change. This also provides an opportunity for environmental protection stakeholders (e.g., SBWQT, Box 7) to influence the SBIDZ's environmental policies and growth path.

2 Economic development

The SBIDZ has great potential for contributing towards economic development, employment creation, and catalysing and empowering subsidiary local climate smart businesses. Firstly, it can do this by working together with Saldanha Bay Municipality to align and integrate its growth trajectory with the Municipality's local development plans, and secondly by working together with the YES Hub, the Future Education and Training colleges and High Schools' Development Programme to ensure that these provide the skills that are/will be required by the SBIDZ as it grows and attracts new investments and industries.

3 Business opportunities

Some of the opportunities in the SBIDZ could be realised by turning threats into opportunities. For example, entrepreneurship in waste management could not only create jobs, but also realise business opportunities that could otherwise be environmentally unacceptable. For example, one of the concerns that has been raised is ship recycling as one of the industries that the SBIDZ is trying to attract into the Zone. This type of industry produces significant amounts of waste, which could pose potential environmental hazard (even though "green" recycling guidelines will be adhered to). 'Wasterpreneurs' could create a business opportunity by dealing with hazardous waste, while enabling ship recycling as an industrial business opportunity for SBIDZ.

4 Alternative economic activities

Fishing and fish processing have been the mainstay of the west coast economy. The decline in the fishery in the last decade is projected to become a permanent phenomenon. This has resulted in a loss of jobs and/or a transformation of the workforce from permanent to casual, or short-term, employment. It is time to look at other economic activities and move away from the area's over-dependency on the fishing industry. Therefore, the consideration of other economic opportunities that the oceans could offer beyond fisheries is required, such as in the tourism or renewable energy sectors.

5 Climate smart development

Climate smart economic growth that protects and/or restores natural ecosystems while supporting sustainable production is key for unlocking economic opportunities from the marine natural resource base in the area. Renewable energy from oceans (wave, tidal and thermal), for instance, could enable a transition away from, or compliment, the current largely coal-based sources.

6 Innovative finance

The West Coast National Park is struggling due to poor funding. Yet, sustainable management and enhancement of biodiversity are key for the realisation of the marine resource-based economic growth path for the area. The WCNP needs to establish innovative ways of improving its funding and financial sustainability. One way could be to look into improving the integration of the park into the local and regional economy as, for example, the Kruger National Park has done under the 'Greater Kruger Strategic Development Programme'. Such a strategy could link park planning to Saldanha Bay Municipal planning and economic development in order to leverage finance for the Park from economic benefits that the municipality gains from existence of the Park within the Municipality.

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South African NATIONAL PARKS

SBWQFT
Saldanha Bay Water Quality Forum Trust

The Nature Conservancy

TRANSNET

PLAAS
Institute for Poverty, Land and Agrarian Studies

SANBI
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