

**DRAFT BASIC ASSESSMENT REPORT FOR THE
PROPOSED PROSPECTING IN SEA CONCESSION AREA
10B BY TRANS ATLANTIC DIAMONDS (PTY) LTD**

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TRANS ATLANTIC
DIAMONDS

**Appendix 5:
Socio-economic Considerations**

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SOCIO-ECONOMIC CONSIDERATION FOR EXPLORATION AND PROSPECTING ACTIVITIES IN SOUTH AFRICAN SEA CONCESSION AREA 10B

September 2022

Report prepared for:

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EXECUTIVE SUMMARY

Anchor Environmental Consultants (Pty) Ltd were appointed to undertake a socio-economic assessment for Trans Atlantic Diamonds (Pty) Ltd who are applying for a diamond prospecting right for Concession Area 10B, an offshore concession (10 040 ha) situated from 8 km south of the border between the Western and Northern Cape to 13 km south of the Groenriviermond Lighthouse. The proposed prospecting activity is anticipated to potentially impact coastal communities in the Kamiesberg- and Matzikama Municipalities, particularly Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and to a lesser extent Malkopbaai, which is further south of the Concession Area 10B. Demographic profiles for the regional, local and project sites are provided. A brief overview of the economic performance is discussed and placed in relation to the potential impacts associated to the proposed survey area. Our approach included the analysis of the local economy, available literature, as well as district and local documents. Regional, local, and district frameworks and strategies were also included to ascertain socio-economic value of the proposed activities and future recommendations for the project site.

Summary of impacts

Table 1-1 and Table 1-2 summarizes the various socio-economic impacts associated with the proposed Trans Atlantic Diamonds prospecting project, to provide a perspective of the net societal benefits and costs. A total of five potential socioeconomic impacts were identified as potentially being associated with the proposed survey/prospecting activities. Negative potential impacts associated with the proposed activities are mostly assessed as ‘Very low’ significance. After mitigation measures were applied, negative potential impacts associated with the proposed activities were reduced to ‘Insignificant’. Potential impacts associated to the seismic survey and sampling/prospecting activities were identified as: Temporary disturbance of marine resources and exclusion of fishing vessels from a safety area around the survey vessel whilst it is operational in the Concession Area 10B potentially impacting fisher group users (i.e., 1) small pelagic purse seine fisheries); 2) impact on small businesses and local tourism; 3) impact on sense of place and health and wellbeing; 4) impact on local households; and 5) local socio-economic performance. The four potential impacts may negatively affect the livelihoods and household income of marine fisheries group. Although, these potential impacts associated to the proposed prospecting activity are of very low significance, it should be emphasized that the influence regarding the decision on the application of the proposed prospecting activity should take into account the poor economic performance of the nearby coastal communities’ particularly those with high dependence on marine resources to support household income and livelihoods.

Table 1-1 Potential impacts identified associated with the prospecting activities after mitigation measures are applied.

| Consideration | Impacts with mitigation | Consequence | Probability | Significance | Status | Confidence |
|-----------------|--|-------------|-------------|----------------------|--------|------------|
| | Impact 1: Small Pelagic Purse Seine | Very Low | Possible | INSIGNIFICANT | -ve | High |
| Tertiary sector | Impact 2: Impact on small businesses and local tourism | Very Low | Improbable | INSIGNIFICANT | -ve | Medium |
| | Impact 3: Sense of place and Human Wellbeing | Very Low | Probable | INSIGNIFICANT | -ve | High |

| Consideration | Impacts with mitigation | Consequence | Probability | Significance | Status | Confidence |
|---------------|--|-------------|-------------|---------------|--------|------------|
| | Impact 4: Impact on local households | Very Low | Probable | INSIGNIFICANT | -ve | High |
| | Impact 5: Local socio-economic performance | Very Low | Possible | INSIGNIFICANT | +ve | Medium |

Table 1-2 Potential cumulative impacts identified associated with the prospecting activities after mitigation measures have been applied.

| Consideration | Impacts with mitigation | Consequence | Probability | Significance | Status | Confidence |
|-----------------|--|-------------|-------------|--------------|--------|------------|
| | Impact 1: Small Pelagic Purse Seine | Medium | Probable | MEDIUM | -ve | Low |
| Tertiary sector | Impact 2: Impact on local tourism and businesses | Medium | Possible | LOW | -ve | Low |
| | Impact 3: Sense of place and Human Wellbeing | Medium | Improbable | LOW | -ve | Low |
| | Impact 4: Impact on local households | High | Improbable | LOW | -ve | Low |
| | Impact 5: Local socio-economic performance | High | Possible | MEDIUM | +ve | Low |

Key perceptions and concerns from stakeholders

From a societal cost-benefit perspective, the general perception of the community representatives and stakeholders are concerned mainly about the negative impacts of the proposed TAD prospecting project. The most prevalent concerns that have been raised included the harm that will potentially be done to terrestrial, marine and coastal wildlife species; pollution; land and visual impacts and other repercussions on local tourism sector. Access to the coastline and beaches has already been heavily affected by historic and current prospecting and mining. The stakeholders reiterate that these impacts must all be addressed in the Environmental Management Programme. The local communities rely on marine resources for their livelihoods and as a source of income. The community anticipates a negative impact to several fishing industries and is of the opinion that seismic activity affects breeding and moving patterns of fish and that it could potentially lead to a devastating decline in fish population species along the coastal line. A time-period to conduct prospecting activities were recommended by several stakeholders to minimise the socio-economic impacts associated to the proposed prospecting activities. To enhance the economic contribution of the prospecting activities, employment opportunities must be created. To compensate for the potential impacts that cannot be mitigated, an economic contribution in the form of financial support (i.e., scholarships, bursaries, and secondary education sponsorships) is recommended.

Key recommendations and Mitigation Measures

It is strongly recommended that mitigation measures be further developed in consultation with local stakeholders so that effective and mutually acceptable mitigation measures can be implemented during the seismic survey, prospecting and potential future mining phase (noting that mining would constitute a separate application and EIA process) activities. Communication protocols should inform on all prospecting activities including timelines and impacts. A “living framework” such as a Monitoring

and Evaluation Plan (M&EP) for identifying, monitoring, assessing, and evaluating Trans-Atlantic Diamonds' Corporate Social Responsibility (e.g., employment and training opportunities) and socio-economic impacts should be developed. This framework should be developed with IAPs and surrounding community representatives that are potentially impacted by the Trans Atlantic Diamonds' prospecting project. Adherence to the M&EP is necessary to ensure that socio-economic deliverables are met. In addition, Trans Atlantic Diamonds should aim to incorporate codes of good practice on Broad Based Black Economic Empowerment issued under Section 9 of the Broad Based Black Economic Empowerment Act, Act 53 of 2003, as amended by Act 46 of 2013. This will include skills transfer programmes, job creation, and supporting local service industry organizations such as manufacturing, production and/or packaging services.

Project limitation

The authors of the socio-economic consideration assessment had limited interaction with all Interested and Affected Parties and local community representatives in the coastal communities in the Kamiesberg- and Matzikama Municipalities, particularly Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, Malkopbaai and surrounding farm areas. This is largely due to the limited time-period provided by the Department of Mineral Resources prospecting application process. This is not a serious limitation for a prospecting application for an offshore concession that is assessed to have Very Low or Insignificant negative socioeconomic impacts on local communities. However, an extension to the time-period from the acceptance of the prospecting and mining application to the final submission of the final Basic Assessment Report should be considered for future mining applications in land based and nearshore (A) concession areas located along remote parts of the South African coastline. This will allow for the inclusion of all stakeholder perceptions and concerns, up to date demographic survey data, and analysis that would be sufficient for a more comprehensive local and municipal economic assessment.

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LIST OF ABBREVIATIONS

| Abbreviation | Description |
|--------------|--|
| Anchor/ AEC | Anchor Environmental Consultants (Pty) Ltd. |
| BAR | Basic Assessment Report |
| B-BBEE | Broad Based Black Economic Empowerment |
| BCLME | Benguela Current Large Marine Ecosystem Programme |
| BID | Basic Information Document |
| CPP | Coastal Public Property |
| CSR | Corporate Social Responsibility |
| DEADP | Department of Environmental Affairs and Development Planning |
| DFFE | Department of Forestry, Fisheries, and the Environment |
| EAP | Environmental Assessment Practitioner |
| EIA | Environmental Impact Assessment |
| EMPr. | Environmental Management Programme |
| EPWP | Expanded Public Works Programme |
| FIA | Fisheries Impact Assessment |
| FLO | Fisheries Liaison Officer |
| GDP | Gross Domestic Performance |
| GDPR | Gross Domestic Product |
| GVA | Gross Value Added |
| HIA | Heritage Impact Assessment |
| IAP | Interested And Affected Parties |
| ICMA | Integrated Coastal Management Act |
| IDP | Integrated Development Plan |
| KLM | Kamiesberg Local Municipality |
| LED | Local Economic Development |
| M&EP | Monitoring and Evaluation Plan |
| MM | Matzikama Municipality |
| MMO | Marine Mammal Observer |
| MSP | Marine Spatial Planning |
| NCSDF | Northern Cape Spatial Development Framework |
| NDIR | Data and Information Report |
| NDP | National Development Plan |
| NDM | Namakwa District Municipality |
| NEMA | National Environmental Management Act |
| NHRA | National Heritage Resources Act |
| PAM | Passive Acoustic Monitoring |
| PSDF | Provincial Spatial Development Framework |
| RRZ | Rural Restructuring Zones |
| SAHRIS | South African Heritage Resources Information System |
| SDF | Spatial Development Framework |
| SMMEs | Small, Medium and Micro Enterprises |
| TAD | Trans Atlantic Diamonds (Pty) Ltd |

| Abbreviation | Description |
|--------------|----------------------------------|
| TAE | Total Allowable Effort |
| TLP | Tuna Pole and Line |
| WCDM | West Coast District Municipality |

1 INTRODUCTION

Anchor Environmental Consultants (Pty) Ltd were appointed to undertake a socio-economic assessment for Trans Atlantic Diamonds (Pty) Ltd who are applying for a diamond prospecting right for Concession Area 10B, an offshore concession (10 040 ha) situated from 8 km south of the border between the Western and Northern Cape to 13 km south of the Groenriviermond Lighthouse. The proposed prospecting activity is anticipated to potentially impact coastal communities in the Kamiesberg- and Matzikama Municipalities, particularly Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and to a lesser extent Malkopbaai, which is further south of the Concession Area 10B. The inshore boundary of the concession area is located approximately 2 km offshore and the outer boundary at about 7 km seaward of the coast at the widest part. The nearest inland towns are Lepelsfontein and Kotzesrus located east and northeast from the Concession Area 10B, respectively (Figure 1.1).

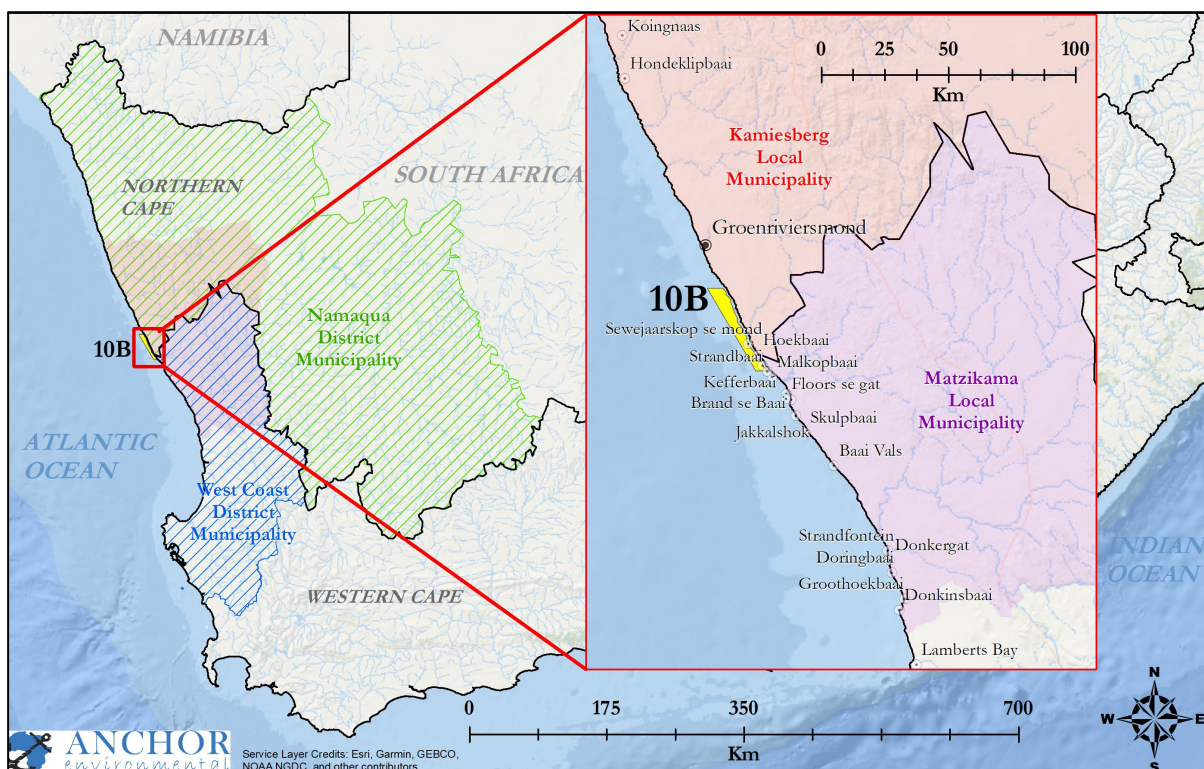


Figure 1.1 Location of the 10B concession area between the Northern- and Western Cape.

Anchor Environmental Consultants (Pty) Ltd (AEC) were appointed as the Environmental Assessment Practitioner (EAP) to undertake the required Basic Assessment Process and support TAD with this application. AEC has inhouse expertise and therefore also undertook the marine specialist study and this socio-economic impact consideration. Concession Area 10B falls under the Kamiesberg- and Matzikama Local Municipalities and the Namakwa District Municipality (NDM) and greater West Coast District Municipality (WCDM), respectively. The proposed prospecting activity is anticipated to potentially impact coastal communities in the local municipalities of Kamiesberg and Matzikama, particularly Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and to a lesser extent Malkopbaai, which is further south of the Concession Area 10B.

2 APPROACH AND OBJECTIVES

This study aimed to achieve several key objectives in order to assess the socio-economic impact of the proposed prospecting project by TAD. The best approach included the assessment of the projects economic value to identify the potential socio-economic impacts and how to best enhance the positive impacts. Where possible, negative impacts were avoided, minimised, or mitigated, and alternative methods were recommended (e.g., alternative technology and operational time periods). If negative impacts could not be avoided, mitigated, or minimised an offset strategy was recommended to compensate for any socio-economic loss and to restore the socio-economic environment. Socio-economic perspectives of the National, District, and Local Spatial Planning Frameworks were included to contextualise the socio-economic impacts during the operational phase of the prospecting project. The following objectives are included in this study:

- To clarify the potential economic value of the proposed prospecting activities on local and regional economy.
- Present the socio-economic demographic and environment of the district and local municipalities situated close to (approximately 2 km offshore) the proposed project site.
- To ascertain key concerns from stakeholders that are interested and or affected by the proposed activities (i.e., collate pre-consultation comments and responses relating to socio-economic issues).
- To determine the potential employment opportunities and Gross Domestic Performance (GDP) of the local and district municipality.
- Provide recommendations that can be included in a monitoring framework to ensure that socio-economic investment associated with the prospecting activities are maintained and evaluated throughout the operational phase.

3 PROJECT ASSUMPTION AND LIMITATIONS

This socio-economic consideration study was based on several assumptions in order to assess the potential impacts of the proposed TAD prospecting project on the socio-economic environment of the local and regional community which included the following:

- The prospecting activity will be operational for approximately a 70-day period.

Limitations that were identified to assess the socio-economic impacts were as follow:

- This study used the National Census statistics, last updated in 2011. Although this data provided valuable information on the demographic profile of the district and local community, it limited this study's ability to assess the potential socio-economic impacts of the TAD prospecting project on the current economic environment.
- There are no high population densities nor major coastal towns located within the extent of the Sea Concession Area 10B. Hence, lack of available research and data on the Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and Malkopbaai tourism industry and fishing sector limited this study's ability to assess the potential negative or positive impact on the local socio-economic environment.

The authors of the socio-economic consideration assessment had limited interaction with all Interested and Affected Parties (IAPS) and local community representatives nearby the concession area. This is largely due to the limited time-period provided by the Department of Mineral Resources prospecting application process. This is not a serious limitation for a prospecting

application for an offshore concession that is assessed to have Very Low or Insignificant negative socioeconomic impacts on local communities. However, an extension to the time-period from the acceptance of the prospecting and mining application to the submission of the final Basic Assessment Report should be considered for future mining applications in land-based and nearshore (A) concession areas located along remote parts of the South African coastline. This will allow for the inclusion of all stakeholder perceptions and concerns, up to date demographic survey data, and analysis that would be sufficient for a more comprehensive local and municipal economic assessment.

4 OVERVIEW OF THE STUDY AREA: ECONOMY AND DEMOGRAPHIC PROFILE

To assess the potential socio-economic impacts of the proposed project it is important to understand the socio-economic context in which the proposed project is to be developed and its potential area of impact. Depending on the scale of the potential socio-economic impacts, it may extend beyond the boundaries of the project. Here, the focus will be placed on the regional, local and project area. The proposed prospecting/survey activity falls offshore of two local municipalities, the Kamiesberg- and Matzikama along a stretch of the following bays namely, Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and Malkopbaai. This socio-economic impact statement will thus consider these regions, focussing on the potential impact on the project site.

4.1 Regional Study Area

4.1.1 Namakwa District Municipality: Demographic Profile and General Employment Trends

The Namakwa District Municipality (NDM) is in the north-western edge of South Africa in Northern Cape Province. It is comprised of six local municipalities namely, Nama Khoi, Hantam, Khai-Ma, Kamiesberg, Karoo Hoogland and Richtersveld. The NDM is the largest district in the province, making up over a third of its geographical area. It is approximately 126 836 km² and has a total population of 139 370 inhabitants and 41 613 households (Table 4-1). Municipal data also show that there are 14 145 households headed by women and 27 child-headed households (NDM 2021). Although this district is the largest in the province, it has the lowest population. This is linked to the aridity of the entire district municipality. The population consists of 50.04% female and 49.96% male, with three predominant population group: Coloured (83.06%), White (8.96%), Black African (7.32%), and Asian (0.65%) communities. Most of the populations' first language is Afrikaans (93.90%) followed by Setswana (1.71%), IsiXhosa (1.55%), English (1.22%) and other indigenous languages (1.62%).

The majority of the population (66.1%) were in the working age group (15-64 years), followed by the young (25.8%, 0-14 years), and the elderly (8.1%, 65+ years) (StatsSA 2011). Dependency ratios give an indication of the social and economic demands placed on working people to support their non-working family/community members and includes the population who are too young to work (0-14 years old), and those who are most likely too old to work (65+). A higher dependency ratio also means greater pressure on social systems and the delivery of basic services. The NDM population dependency ratio was 47% in 2011, which is lower than the current national average of 52% (World Bank 2021).

The average level of formal education in the NDM is relatively low, with a functional literacy rate of 81.1% (higher than the average of the Northern Cape's 79.1% and lower than the national level of 84.8%) (COGTA 2020). About 6.6% of the individuals aged 20 and older have had no formal schooling, whilst 18.8% have attained a matric certificate and not studied further, 7.4% have some form of tertiary qualification, whilst the remaining 67.2% have attended school for a varying amount of time, with the largest portion (39.4% of adults) ending their education sometime during secondary school.

The average household income of the NDM falls into several ranges, with 16.7% of households earning between R0 and R10 000 p.a., the majority (58.6%) of households earning between R10 000 and R75 000p.a., and 24.9% earning more than R75 000 p.a. Average household size has increased slightly in the NDM between 2010 and 2020, as a result of a greater increase in population growth than the growth in the total number of households in the region (NDM 2022). There were 31 400 people employed in the NDM formal sector in 2018 and 4 800 in the informal sector, which constituted 11.2% of the total employment in the Northern Cape (COGTA 2020). The total number of informal jobs had increased from 3 420 in 2008. The economically active population (EAP) of the NDM was 48 000 in 2018, which comprised only 36.3% of the total population in the region, despite of 68% of the population falling between the ages of 15 and 64 in 2016 (COGTA 2020, Municipalities 2022). In 2019, the unemployment rate in the NDM was 22.3%, with 42 284 people being employed and 12 055 being unemployed, which accounted for 9% of the total number of unemployed people in the Northern Cape (NCPG 2021). The number of people in poverty in the NDM increased from 48 500 in 2010 to 60 800 in 2020, which is a 25.4% increase (NDM 2022). The region also saw an increase in its Gini coefficient from 0.548 in 2010 to 0.582 in 2020, which shows an increased level of income inequality, with most of this change occurring within the Coloured population. Despite this increase in the number of impoverished people and income inequality, the Human Development Index (HDI) for the NDM, which is a course indicator of average quality of life, determined by combining statistics such as schooling, average life expectancy, and standard of living, increased from 0.61 in 2010, to 0.73 in 2020, suggesting an average improvement in quality of life for the people in the NDM (NCPG 2021).

The NDM had an annual negative economic growth rate of -0.54% in 2018, which is a greater rate of decline than the -0.31% of the Northern Cape Province as a whole (COGTA 2020). The NDM contributed 10.7% of the total GDP of the Northern Cape in 2019. The largest employment industries within the NDM are community services and trade, which employed 28.6% and 18.2% of the employed populous in 2019, respectively. The most important sector in the NDM from a Gross Value Added (GVA) perspective are the mining sector, contributed R3.4 billion (35.6%) of the districts total GVA in 2018, the community services sector (16.1%), then the trade sector (11.8%) (COGTA 2020). Tourism spending is also important in the NDM, with 7% of local GDP coming from tourism in 2018. It is important to consider that the Covid-19 pandemic has likely had a large negative impact on the income derived from tourism in the region. Finally, agriculture is also an important, growing sector in the region, with livestock farming being prevalent in dryer regions, and high-value crops being prioritised in proximity to the Orange River (COGT 2020).

Table 4-1 Demographic profile summary of the Namakwa District Municipality and Kamiesberg Municipality, Hondeklipbaai and Koingnaas (StatsSA 2011, COGTA 2020, NCPG 2021).

| Indicator | Namakwa District | Kamiesberg Local Municipality | Hondeklipbaai | Koingnaas |
|------------------------------|------------------|-------------------------------|---------------|-----------|
| Population Total | 141 000 | 9 605 | 543 | 105 |
| Household Total | 41 100 | 3 319 | 189 | 61 |
| Area (km²) | 126 838 | 11 742 | 1.09 | 0.66 |
| Population group | | | | |
| Coloured (%) | 83.06 | 85.6 | 80.51 | 63.8 |
| Black African (%) | 7.32 | 5.3 | 8.27 | 0 |
| White (%) | 8.96 | 8.1 | 8.82 | 31.4 |
| Indian or Asian (%) | 0.65 | 0.5 | 1.47 | 1 |
| Other (%) | 0.01 | 0.5 | 0.92 | 3.8 |
| Gender distribution | | | | |
| Male (%) | 49.96 | 50.4 | 47.88 | 53.8 |
| Female (%) | 50.04 | 49.6 | 52.12 | 46.2 |
| First language | | | | |
| Afrikaans (%) | 93.9 | 96.4 | 96.86 | 99 |
| Setswana (%) | 1.71 | 0 | N.A | 0 |
| IsiXhosa (%) | 1.55 | 1.4 | N.A | 0 |
| English (%) | 1.22 | 0.2 | 1.11 | 1 |
| Sign Language | N.A | 0 | 1.11 | 0 |
| Dependency ratio (%) | 47.1 | 57.9 | 48.4 | 19.3 |

4.1.2 West Coast District Municipality: Demographic Profile and General Employment Trends

The WCDM extends over an area of 31 099 km² and has a total population of 464 056 inhabitants and 122 074 households (Table 4-2). The district includes five local municipalities (Matzikama, Cederberg, Bergrivier, Saldanha Bay, and Swartland) which all have access to the Atlantic Ocean as well as the N7 national road (with the exception of Saldanha Municipality) (WCDM 2021). The population consists of 50.3% female and 49.7% male, with three predominant population group: Coloured (66.6%), Black African (16.4%), and White (15.7%) communities. Most of the populations' first language is Afrikaans (83.7%) followed by IsiXhosa (8.6%), English (3.98%) and other indigenous languages (IsiNdebele, Sesotho, and Setswana).

The WCDM population dependency ratio is quite high (45.9%) with 68% in the working age group (15-64 years), followed by the young (25%, 0-14 years) and the elderly group (7%, 65+ years). A high dependency ratio puts greater strain on people who are part of the workforce to support their economic dependents (children and elderly people). A higher dependency ratio also means greater pressure on social systems and the delivery of basic services. The level of education in the WCDM is relatively low, with a literacy rate was 79.1% (lower than the average of the Western Cape's 87.2% and

slightly lower than the rest of South Africa 80.9%) (Socio Economic Profile WCDM). The dropout rate for high school learners (Grades 10 to 12) within the West Coast local municipalities varied from 23% to 33%. These elevated levels of dropouts were influenced by socio-economic factors such as teenage pregnancy, availability of no-fee schools and unemployment (Socio Economic Profile WCDM). The average income in the WCDM fall within three ranges: no income (10.5%), R1 to R9 600 per annum (5.3%) and R9 601 to R76 400 per annum for which most of the population can be categorised (57.8%). There were 183 969 people employed in the WCDM in 2018, which constitutes 7.1% of the total employment in the Western Cape. The WCDM experienced an average annual increase of 3 480 jobs over the period 2014-2018, with the Swartland Municipality generating the most employment opportunities of 1 146 in the last year, conversely to Matzikama and the Bergriver Municipality which only created some 546 jobs. In 2019, the WCDM experienced a loss of 389 jobs, which will have a significant impact on the WCDM economy if this trend continues.

The WCDM experienced the slowest economic growth in the Western Cape between 2005 and 2013, averaging 3.0% (WCDM 2021). In contrast, the province showed a growth rate of 6.8% over the same period. The West Coast experienced strong growth in its construction (6.2%) and commercial services (6.1%), which include wholesale and retail trade, catering and accommodation; transport, storage and communication; and finance, insurance, real estate and business services sectors (WCDM 2021). The sectors that experienced a reduction over the 2005-2013 period was the agriculture (0.3%), manufacturing (0.3%) and other sectors (3.0%). The general government and community, social and personal (CSP) services sector in the West Coast experienced a steady 2.8% growth. The largest sectors in the West Coast economy in 2013 were the finance, insurance, real estate and business services (27%), manufacturing (17%), agriculture, forestry and fishing (14%) and wholesale and retail trade, catering and accommodation services (13%) (WCDM 2021). The agriculture, forestry and fishing sector were the primary source of employment, with 70 060 jobs in 2018, contributing 38.1% to total employment in the WCDM.

Table 4-2 Demographic profile summary of the West Coast District Municipality, Lamberts Bay, Strandfontein, and Doringbaai.

| Indicator | West Coast District | Lamberts Bay | Strandfontein | Doringbaai |
|------------------------------|---------------------|--------------|---------------|------------|
| Population Total | 391 766 | 6120 | 431 | 1260 |
| Household Total | 106 781 | 1710 | 92 | 315 |
| Area (km²) | 31 118.6 | 45.73 | 4.18 | 1.79 |
| Population group | | | | |
| Coloured (%) | 66.58 | 74.53 | 14.8 | 90.17 |
| Black African (%) | 16.36 | 8.97 | 50.6 | 6.90 |
| White (%) | 15.71 | 15.90 | 33.2 | 2.7 |
| Indian or Asian(%) | 0.56 | 0.23 | 0.9 | 0.08 |
| Other (%) | 0.79 | 0.38 | 0.5 | 0.16 |
| Gender distribution | | | | |
| Male (%) | 49.7 | 49.1 | 51.4 | 49.29 |

| Indicator | West Coast District | Lamberts Bay | Strandfontein | Doringbaai |
|-------------------------|---------------------|--------------|---------------|------------|
| Female (%) | 50.3 | 50.9 | 48.6 | 50.71 |
| First language | | | | |
| Afrikaans (%) | 83.67 | 90.87 | 69.4 | 96.37 |
| English (%) | 3.98 | 1.75 | 3.2 | 2.66 |
| IsiXhosa (%) | 8.58 | 5.80 | 22.6 | 0.32 |
| Setswana (%) | 0.63 | 0.55 | 0 | 0.32 |
| Dependency ratio | 45.9 | 52.9 | 18.1 | 44.2 |

4.2 Local Study Area

4.2.1 Kamiesberg Municipality: Demographic profile and General Employment Trends

The Kamiesberg Local Municipality (KLM) is situated on the south-west coast of the Northern Cape and borders the Western Cape Province to the south, the Nama Khoi Municipality in the north, the Khâi-Ma Municipality to the north-east, the Hantam Municipality to the south-east, and the Atlantic Ocean to the west. The KLM consists of three main geographical regions, the sandy coastal lowlands, the mountainous central Kamiesberg escarpment, and the eastern plateau known as Bushmanland (KM 2022).

The municipality consist of 16 small towns, with only one coastal settlement, Hondeklipbaai, and several small inland towns, with the business center being found in Springbok (KM 2022). Agriculture within the region primarily consists of livestock farming, with the rearing of livestock (sheep and goat) and poultry, which consist of 56.9% and 25.4% of the agricultural households, respectively (StatsSA 2011). There are no perennial rivers in the municipality, therefore, water is supplied entirely from subterranean sources, which is either abstracted from windmills or from natural springs (KM 2022). The arid conditions and constrained water supply make other forms of farming largely unviable. The large expanses required for livestock farming makes managing animal populations challenging, with significant losses to profit margins occurring due to predation from jackals and eagles (KLM 2010). Animal theft is also an issue influencing the viability of livestock farming.

The KLM had a total population of 10 187, as of 2011, with 2 204 people being employed, 981 unemployed, 723 were classified as discouraged work-seekers, and 2 535 are not economically active. Unemployment stood at 30.8%, with youth unemployment at 40.4% (StatsSA 2011). A population of 63.3% falls within working age (15-65), therefore, only 34.2% of this demographic is employed. The KLM had an average dependency ratio of 57.8% in 2011, which is higher than the NDM, which indicates a higher level of dependency, which is due to a relatively considerable proportion of children when compared to working adults (StatsSA 2011). An employed population of 78% works in the formal sector, and 13% in the informal sector (StatsSA 2011).

A large source of the regions' economy is the tourism industry, which is largely seasonal, and is based on the natural flower season between August and October. Furthermore, the KLM is home to a large amount of floral diversity, with one third of the total global succulent flora species being found here, of which nearly 40% are endemic (KM 2018). The presence of Hondeklipbaai on the coast, which is

home to a small fishing community and holiday destinations, adds a small coastal tourism element to the overall economy of the region.

The leading employing industries in the KLM in the 2011 census were mining and quarrying (21.5%), General Government jobs (19.4%), community, social, and personal services (18.1%), wholesale & retail, trade, catering, and accommodation (14.3%), and agriculture, forestry, and fisheries (10%). Employment type varies greatly by location, with the rural economy primarily consisting of agriculture and the economy of Hondeklipbaai largely consisting of fishing and tourism, and the other major jobs being found in the larger towns (KM 2018).

The region has been struggling with economic decline, largely due to the shrinking of the land-based mining industry with time, which has led to the dwindling of the population in what were previously mining towns, largely associated with diamond mining. Industries that seem to have greater resilience include retail and accommodation, as part of the tourist industry, including coastal tourism in Hondeklipbaai, and tourism associated with the seasonal flowers (KLM 2010). The livestock-agriculture sector has also shown some resilience. However, this is constrained by the availability of water, which limits its maximum growth potential. It has been speculated that greater utilisation of the regions' coastal and marine resources, through fishing and mariculture, could represent a new economic avenue for the KLM to explore to help offset the loss of jobs associated with the ceasing of mining activities (KLM 2010).

Despite recent interest in offshore commodities, such as diamonds, this is unlikely to represent a significant economic boon to the municipality, as the associated vessels will be based at Saldanha Bay, with vessels' crews not being employed from local communities in the KLM. Additionally, it is highly unlikely that the crews will embark in Hondeklipbaai, therefore they will not contribute to the tourism and retail markets on the area.

4.2.2 Kamiesberg Municipality: Sector Contributions to GVA

The KLM contributed 7.2 % to the total GDP of the NDM in 2020 (~R764 million) and has experienced a -1.1% annual economic growth from 2010 to 2020, which is the lowest in the NDM (NDM 2022). The leading employing industries in the KLM in the 2011 census were mining and quarrying (21.5%), General Government jobs (19.4%), community, social, and personal services (18.1%), wholesale & retail, trade, catering, and accommodation (14.3%), and agriculture, forestry and fisheries (10%). Employment type varies greatly by location, with the rural economy primarily consisting of agriculture, the economy of Hondeklipbaai largely consisting of fishing and tourism, and the other major jobs being found in the larger towns (KM 2018). The economic state of the municipal area is important as it affects the ability of households to pay for services such as water, electricity, sanitation and refuse removal.

Economic growth trends are vital for predicting the direction of spatial expansion, guiding investment, and job creation in certain industries. With the negative economic growth trends present in the KLM, investment should, most likely, be focussed on industries which are not dependent on the dwindling mining sector, such as tourism, agriculture, fishing, mariculture, and associated industries, with the goal of creating employment opportunities for local communities (KM 2018).

4.2.3 Matzikama Municipality: Demographic Profile and General Employment Trends

The Matzikama Municipality (MM) is situated on the north-west coast of the Western Cape and borders the Northern Cape Province (Kamiesberg municipality in the north and Hantam municipalities in the east), the Atlantic Ocean on the west, and the Western Cape (Cederberg Municipality) in the south (WCDM 2021). The MM consist of 18 towns, with three coastal settlements (Doringbaai, Papendorp, and Strandfontein) and several small inland towns which serves as agriculture service centres (Ebenhauser, Lutzville, and Koekenaap) (MM 2019; WCGPT 2018). The MM is defined by an arid environment with a flourishing natural irrigation system sustained by the Olifants River. The Olifants River (Vanrhynsdorp Government Scheme) consist of 237 km canals and supply water for several towns, industrial and domestic waste, local agriculture, and irrigation (DWS 2019). Most of the economic activities are concentrated in the south of the municipality, with Vredendal being the largest town and primary economic node (WCGPT 2018). The agriculture sector is largely attributed to the viniculture industry and combined with the forestry and fishing sector contributed the most towards Matzikama's municipal GDP and employment in 2018 (Mayson *et al.*, 2020; MM 2019). The agriculture, forestry and fishing sector employed approximately 25 492 people in 2014 consisting of a mixed workforce of semi-skilled and unskilled workers (PGWC 2018). Matzikama's real GDP per capita in 2018 was R39 000 which is considerably lower than most surrounding municipalities, including the WCDM (at R59 000). The MM's real GDP per capita decreased between 2018 and 2019 by 2.5%, in addition to a low GDP growth rate of 2.1% over the period 2008-2017, which is 0.3% less than the WCDM average growth rate (WCDM 2021; MM 2020). It is estimated that the MM experienced its largest decline in its annual GDP growth rate in 2019 (4%) when compared to the GDP growth rate between 2014 and 2018 (MM 2021/22). It is apparent that the COVID-19 pandemic worsened Matzikama's local economy as a decline in economic performance has already been observed since 2018.

4.2.4 Matzikama Municipality: Sector Contributions to GVA.

Matzikama Municipality contributed approximately 14% to the WCDM's GDP (~R4 billion) and employed about 15.8% of the WCDM's labour force. The three largest sectors that contribute to the GDP of the municipal area are agriculture, forestry and fishing (24.5%), wholesale and retail trade, catering and accommodation (16.3%) and manufacturing (13.6%). The economic state of the municipal area is important as it affects the ability of households to pay for services such as water, electricity, sanitation and refuse removal.

Economic growth trends are vital for predicting the direction of spatial expansion, guiding investment, and job creation in certain industries. Suitable investment into sectors that have showed no positive growth over the last years should be considered to facilitate greater growth and employment opportunities in specific sectors. Sectors that that contributed less to the WCDM GDP primary, secondary and tertiary sectors such as mining and quarrying (4.8%), construction (4.9%) and finance, insurance, real estate, and business services (9.6%) should be considered.

4.3 Project Site

There are no major coastal towns located adjacent to Sea Concession Area 10B and covers 10 040 ha in extent. Hondeklipbaai and Koingnaas are coastal towns further north and activities from Concession Area 10B will unlikely cause any impacts. The same can be said for inland towns such as Lepelfontein and Kotzesrus located further east and northeast from the Concession Area 10B, respectively. The bays along the Concession Area 10B are less densely populated namely, Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and Malkopbaai. Sewejaarskop se Mond is a bay and is located between the Northern- and Western Cape, South Africa. The estimate terrain elevation above sea level is 1 m. Sewejaarskop se Mond is situated nearby to Bruinklip, and south of Brakrivier. It is 8 km east from Heuningvlei, 12 km southeast of Karoetjieskop, 12 km northeast of Lepelfontein, 12 km east of Koelfontein and 5 km southeast of Hoekbaai in Western Cape. Although there are no dense residential areas adjacent to these bays there are various farm portions in Northern and Western Cape along the shore parallel to the 10B concession area. Limited fishing and outdoor activities are evident.

5 COMPATIBILITY WITH SPATIAL PLANNING: AN ECONOMIC PERSPECTIVE

5.1 National Development Policy and Legislative Context

5.1.1 National Development Plan (NDP)-2030

When considering the socio-economic impacts that will result from the Trans Atlantic Diamond (TAD) project, spatial development frameworks are used to place their significance into context. The National Development Plan (NDP 2012) is a strategy for securing South Africa's future, as outlined in the Constitution. The NDP set out six key objectives to eradicate poverty and inequality in South Africa (NDP 2012). The following objectives are set out for 2030:

- Bringing South Africans of different races and socio-economic groups together around a common goal of eradicating poverty and reducing inequality.
- Encourage citizens to participate in their own strength, strengthening the democracy, and the accountability of their government.
- Increasing economic growth, exports, and the labour-absorbing economy.
- Concentrating on essential human and national capabilities.
- Increase skills, infrastructure, social security, institutions, and partnerships both inside the country and with major international partners.
- Creating a capable and growing state.
- Strengthening the collaboration of societal leaderships.

Increasing national growth and creating a development is a difficult process. As a result, the NDP suggests a multidimensional strategy for achieving a constructive growth cycle where one achievement advances the next. The primary aim for South Africa is to reduce poverty and inequality through raising living standards to the NDPs' minimum level. This will require improvement in a combination of socio-economic challenges such as employment, the social wage, earnings, productive growth, and public services. These challenges are interconnected where one challenge can improve the other. For

example, faster economic growth will enhance opportunities for all while providing the resources needed to improve education (Figure 5.1).

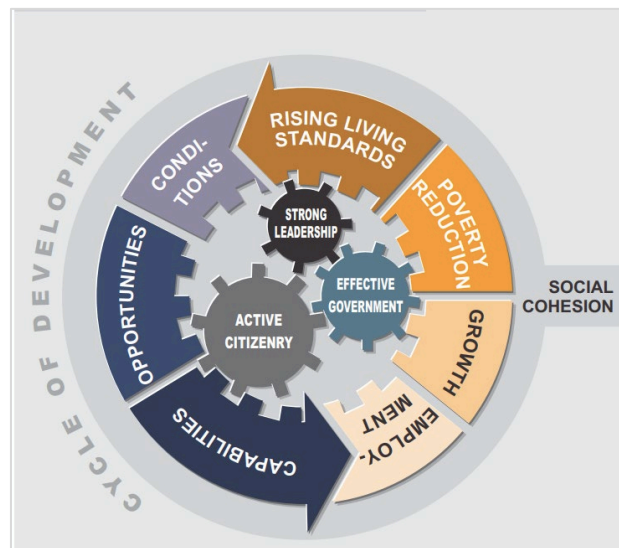


Figure 5.1: Cycle of development to achieve social cohesion (NDP 2012).

The NDP aimed to transform the economy through the increase of exports and improving human capital, production capacity, and infrastructure which will free up resources for investment and minimize the dependency on capital inflows. As a result, increased capital growth and improved public infrastructure and skills will enhance economic development. High employment and development will result in higher earnings and living standards, and therefore less inequality. Long-term economic prosperity requires a shift in the economy toward increased investment and decreased consumption.

For developing industries such as agro-processing, tourism, fisheries, and small businesses, a diversified approach is advocated. Increased capital spending is required to promote faster and more inclusive growth. Supporting investment, particularly domestic investment, incentivizing savings, and enabling enterprises and citizens to take a longer-term view of economic opportunities will be critical to the Plan's success. Industries such as agro-processing, tourism, fishing (in coastal areas), and small-enterprise growth should be encouraged, with market assistance in places with more economic potential.

The Context of Trans Atlantic Diamond Prospecting Application and the NDP:

The TAD prospecting project supports three out of the six key objectives set out by the NDP. The TAD prospecting project will be able to promote economic growth through greater labour absorption (30 employment opportunities, 18 training opportunities) during operational activities. Furthermore, concentrating on essential human and national capabilities, thereby increase skills, infrastructure, social security and partnerships both inside the country and with major international partners. Given that diamond prospecting is skilled work that potentially results in mining of a valuable export commodity that is processed and marketed through international partners and generates Forex.

5.1.2 Provincial and Local Planning Context

5.1.2.1 Northern Cape Provincial Development and Resource Management Plan/ Spatial Development Framework (2011)

The 2011 Northern Cape Spatial Development Framework (NCSDF) was drafted by the Dennis Moss Partnership and serves as a:

- “Spatial land-use directive aiming to promote environmental, economic, and social sustainability through sustainable development.
- Basis for prioritising governmental programmes and projects.
- Premise for governmental performance management.
- Manual for integrated land-use planning” (D.M.P 2019).

Within the primary development objectives in the NCSDF include:

- “To promote the growth, diversification, and transformation of the provincial economy
- To reduce the levels of poverty through social development.
- To improve the amounts of human and spatial capital.
- To improve the efficiency and effectiveness of governance and development institutions
- To enhance infrastructure for economic growth and social development.” (NCSDF 2011).

Within the SDF, there is an imperative for economic development that is forward looking and results in investment in industries with long-term potential. The authors acknowledge the shrinking of the land-based mining industry, and recommend for development to pursue other, more sustainable avenues. The NCSDF also emphasises the importance of coastal management and development, with sustainable development being a core focus. This acknowledges the importance of the maintenance of the diversity, health, and productivity of the coastal ecosystems within the Northern Cape. As such, development and economic activities occurring within the coastal zone should minimise impacts to ecosystem functioning and avoid the degradation of this functioning, where possible. The lack of access to coastal and marine resources due to mining-related access control has been further flagged as an issue limiting the transition towards more sustainable coastal development in the province.

The context of Trans Atlantic Diamond Prospecting Application and the Northern Cape Spatial Development Framework (2011).

The proposed prospecting activities share little alignment with the NCSDF, as mining activity is not considered to be a sustainable activity by its nature. Since the prospecting activities will be offshore, they will not result in any further terrestrial land-degradation or access control, which is in-line with the NCSDF. There will be no access restrictions for fishermen or recreational activities during the prospecting process, which is in line with the NCSDF.

It is imperative that TAD take steps to minimise the environmental impacts of the prospecting to avoid negatively impacting the natural coastal resources in the region. Should environmental impacts be minimised, the prospecting activities should have a negligible impact on the region’s future sustainable coastal development, as stipulated within the NCSDF. Furthermore, since no land-based infrastructure will be required for the prospecting in the Northern Cape, it will not contribute to coastal development in the province.

At a micro-scale, the few job opportunities offered on the prospecting vessel could contribute to poverty alleviation and social development for a few people, yet it is unlikely to be significant as it is restricted to a small number of crew. Should prospecting reveal an economically viable resource and the project proceed to the mining phase (following a successful application for a mining right), the primary benefits for the Northern Cape Would be through trickle down effects associated with the tax revenue received from the mining activities. In synopsis, the proposed TAD prospecting activities are primarily neutral with respect to the NCSDF, with the activities having minimal positive for the province and also minimal negative impacts.

5.1.2.2 Namakwa District Municipality Integrated Development Plan 2021-2022

The Integrated Development Plan aims to include the entire municipality and its inhabitants in determining the best options for long-term growth. The IDPs' primary purpose is to enable municipalities to manage strategic objectives and other requirements set out in the IDP, NDP and other socio-economic frameworks. The strategic objectives set out within the IDP, include improving service delivery of basic goods and services, supporting vulnerable groups, improving administrative and financial viability and capability, as well as to generally improve the standard of governance within the municipality (NDM 2021). The IDP emphasises the economic transformation towards the development of more sustainable industries, such as farming, fisheries, and tourism. The improvement of environmental and developmental affairs in line with global agreements such as the Paris Accord, the 2030 Agenda for Sustainable Development, etc is also important. Finally, the IDP places a large focus on aiding the people in their recovery from the Covid-19 pandemic.

The context of Trans Atlantic Diamond Prospecting Application and the Namakwa District Integrated Development Plan (NDIDP)

The NDIDP has the strategic objective of facilitating local economic development and poverty alleviation, which might be partially fulfilled through the creation of several jobs on the prospecting vessel, should these crew members be selected from vulnerable communities, this will also align the project with the NDIDP. However, it must be noted that, since the survey vessel will be based out of Table Bay or Saldanha Bay and most of the associated economic benefits of the prospecting will also be centred in these areas. It is unlikely that the TAD prospecting activities will have any meaningful economic benefits or benefits to service delivery or poverty alleviation in terrestrial settlements adjacent to the 10B concession. Prospecting activities should follow strict environmental protocols to reduce the possible environmental impacts associated with the activities and disturbance of the sea floor. Furthermore, the local aquatic resources in proximity to the prospecting area need to be maintained as a reduction in the productivity of the local fish stocks could negatively impact the livelihoods of the vulnerable fishing groups.

5.1.2.3 Kamiesberg Local Municipality Integrated Development Plan 2021/ 2022.

The Kamiesberg IDP has the main objective of integrating national and provincial initiatives with the intention of improving the lives of all South Africans. The IDP identified the impacts of the global economic downturn associated with the Covid-19 pandemic on the local economy. Furthermore, the

closure of the De-Beers diamond mine at Koingnaas also had a significant economic impact on the municipality, both through the loss of employment opportunities for the local communities, as well as the loss of rates and fees the municipality charged the company. Since the municipality had a population of only 10 800 in 2018, the loss of an income stream like this can have a large economic effect. Sound financial management was, therefore, considered to be the most important strategy to achieving the service delivery goals stated below. The financial situation facing the municipality can be summarised as: “The reality is that the development needs of our communities as articulated in this IDP review, exceeds the funding available to address all needs” (KM 2021).

In total, 7 outputs are desired from the IDP, including:

1. “The implementation of a differentiated approach to municipal financing, and support.
2. The improvement of access to basic services.
3. The Implementation of the community ward programme.
4. To take actions supportive of the Human Settlement Outcome.
5. To deepen democracy through a refined ward committee model.
6. To improve administrative and financial capability.
7. To form a single window of coordination”.

The desired outcomes for the KLMIDP can be further broken down into 10 strategic objectives:

1. “The promotion of Local Economic Development with specific focus on shared growth.
2. To create an enabling environment for economic growth in Kamiesberg that attracts investors, encourages innovation and facilitate pro-poor intervention.
3. To ensure a municipality that is committed to an innovative approach, prudent investment of public funds, good governance, financial viability and optimal institutional transformation that accommodates diversity in service delivery.
4. To develop socially integrated, safe, and healthy communities.
5. To ensure ecological integrity and climate response through sustainable practices.
6. To develop progressive strategies to optimize the use of available human resources.
7. To facilitate real opportunities for youth, women, and disabled and appropriate care for the aged.

8. To provide and maintain superior decentralized consumer services (Water, sanitation, roads, storm water, waste management and electricity).
9. Reduction of infrastructure backlogs i.e. human settlement, water, roads, electricity etc.
10. To ensure compliance as prescribed by relevant legislation”.

The context of Trans Atlantic Diamond Prospecting Application and the Kamiesberg Local Municipality Integrated Development Plan (KLMIDP)

The proposed TAD prospecting activities along the coast of the KLM has some alignment to the KLMIDP, primarily through the potential job opportunities offered for the individuals who will be selected to work on the prospecting vessel. The few jobs offered during the prospecting activities are however, likely to have a small impact at the district and provincial levels (mentioned above) as a result of the survey vessel operating from Saldanha or Cape town ports. The prospecting activities are not going to significantly offset the loss of employment felt by the departure of De-Beers and the Covid-19 pandemic as the number of staff required for offshore prospecting is much less than is required for land-based prospecting. Furthermore, should sea-based mining activities ever occur in the 10B concession, this is also unlikely to lead to the employment of any substantial number of local individuals.

Further economic revenue streams are important for a country such as South Africa and the KLM could benefit from trickled-down effects associated with rates and fees charged to the mining companies which, in turn, benefits the people of South Africa.

TAD needs to ensure that the environmental impacts associated with the prospecting activities are minimised and that the ecological integrity of the surrounding coastline is maintained in accordance with strategic objective 5 of the KLMIDP.

5.1.2.4 Western Cape Provincial Spatial Development Frameworks (2014)

The 2014 Western Cape Provincial Spatial Development Framework (WCPSDF, 2014) is prepared by the Department of Environmental Affairs and Development Planning (DEADP) and various service providers. This framework informs national, provincial and municipal planning processes and vice versa. The WCPSDF aims to create a framework for the Province’s urban and rural areas which will assist in governmental spatial planning mandates. The guiding provincial spatial principles aim to increase investment in the Western Cape’s public sector (built and natural environment) and are as follow:

- **Spatial justice:** Correct past spatial and other development inequalities.
- **Sustainability and resilience:** Promote the development of spatial systems that are sustainable, complex, diverse and resilient.
- **Spatial efficiency:** Improve the spatial efficiency of settlements and use of resources.
- **Accessibility:** Improve accessibility of numerous services, facilities, employment, training, recreation, public spaces, and transportation.

- **Quality and liveability:** Improve the quality of the built environment (e.g., transform open spaces that are legible, diverse, varied and unique).

The broader spatial agenda for the province can be summarized as follow:

- Growing the economy of the Western Cape Province in collaboration with the commercial sector, non-governmental, and community-based organizations.
- Invest in infrastructure to transform the urban and rural spatial environment.
- Provide better governance of the Western Cape's spatial assets and enhance and protect biodiversity, renewable energy, and agriculture assets while mitigating impacts resulting from adaptation.

Government alone cannot stimulate economic performance but could help businesses succeed by providing and maintaining regional infrastructure and organizing economic activities in both urban and rural areas. As a result, private investment, equal opportunities, and income earning is encouraged in the space-economy. Although the private sector is the major generator for economic growth, the government must lead in selecting where that growth occurs. One of the key strategies explored in the NDP were Rural Restructuring Zones (RRZ). The NDP proposed that the designation of RRZ could increase prospects in lagging regions or places with agricultural, tourism, or mining potential. However, no specific places have been designated and will be advocated based on a set of criteria.

The Context of Trans Atlantic Diamond Prospecting Application and the Western Cape PSDF (WCPSDF)

The WCPSDF advocates investment in new regional economic infrastructure in order to attract private investors, such as TAD, and community organisations. In this instance, the proposed TAD project subscribes with the WCPSDF in terms of:

- Focussing the global mining market in Africa and the Globe.
- Investment in local economic growth through job creation.
- Address spatial issues that the WCPSDF identified (e.g., make use of the underutilised Saldanha Bay Harbour).
- Assist in the designation of Doringbaai as an RRZ.

5.1.2.5 Matzikama Municipality Integrated Development Plan (IDP)

The Integrated Development Plan aims to include the entire municipality and its inhabitants in determining the best options for long-term growth. The IDPs' primary purpose is to enable municipalities to manage strategic objectives and other requirements set out in the IDP, NDP and other socio-economic frameworks. For example, The IDP informs Council's about challenges of its social partners and helps to resolve them, while guiding different sectors of government, the private sector and organizations to allocate funds according to the objectives and strategies of the Municipality (e.g. Matzikama Municipality). During the IDPs' public participation process, various priority needs were identified by the Matzikama community. The primary priority identified by civil society (29%) wanted to address challenges related to sport. A second priority was to enhance Local Economic Development

(LED) (25%) and invest in infrastructure (25%). Lastly, the third priority identified was challenges related to the health services (21.5%). The TAD prospecting project should therefore aim to aid these priorities.

Local Economic Development (LED) Strategy:

The Matzikama Municipality IDP briefly discussed the Local Economic Development (LED) strategy and identified several important socio-economic challenges and proposed strategic objectives on how to address them. The reduction in unemployment, poverty and inequality were identified. These challenges should not be independent from one another but addressed as a cohesive objective in order for Matzikama Municipality and community to experience enhance economic growth. More specifically, the LED aims to:

- Minimize the poor community's susceptibility to catastrophes and spatial separation from economic activity.
- Increase the Matzikama community's skills and small businesses, while providing finance investment.
- Improve sector integration (i.e., informal and formal sector) and collaboration between government, business, and community organizations.
- Promote the diversification of Matzikama economy and enhance the expansion of existing sectors.
- Develop social capital.

Key interventions aligned with LED have been identified as follows:

- Develop the Marine Economy
- Strengthen and develop local businesses
- Develop local skills
- Develop local infrastructure
- Strengthen the Agricultural Sector Value Chain
- Optimally Use and Manage Resources
- Youth Development
- Mining Sector Interventions

The Context of Trans Atlantic Diamond Prospecting Application and the Matzikama Municipality IDP:

The Matzikama Municipality IDP identified several priority-needs for the Matzikama Municipality and community which included challenges related to sport, LED, infrastructure, and health services. The TAD prospecting project can subscribe to the Matzikama Municipality IDP to some extent through employment of 30 civil citizens. However, economic growth for a community can only be enhanced through employment and alleviating poverty if long-term investment such as skill development is included. TAD will be able to train 18 individuals which is one of the priority needs identified during the IDP public participation process. Several interventions of the IDP include the development of local skills, but an overarching problem is the short-term LED provided by the TAD prospecting project. In the context of the IDP and strategies, only one out of three priorities-needs (i.e., LED) are addressed,

while two out of seven key interventions are supported (Development of the Marine Economy and Youth Development).

6 PERCEPTIONS AND CONCERNS OF KEY STAKEHOLDER GROUPS

The perceptions and concerns of stakeholders (Interested and Affected Parties, IAPs) are included in this study in order to understand the socio-economic perspective and environment. It is essential to understand the positive and negative concerns of IAPs to determine the Corporate Social Responsibility (CSR) of TAD. Multistakeholder perceptions identified during the pre-consultation process revealed several key concerns and issues that would need to be addressed for the proposed prospecting application. CSR has become a critical component in mining activities but has often been overlooked or is ambiguous in developing countries (Mzembe & Downs 2014; Hilson 2012). CSR could be defined as an economic contribution to a socio-economic environment that naturally results into a socio-economic impact (Visser 2008). Socio-economic responsibilities employed by businesses are often negatively perceived (e.g., marketing ploy), particularly for mining activities (Viveros 2014). The scope and definition of CSR is not always clearly defined between business and management and can be a source of tension between stakeholders and companies (Waarnaars 2012). Therefore, multistakeholder perceptions and the inclusion of IAPs are essential in understanding the broader scope of CSR and more complex issues relevant to the IAP of the proposed project area. Several stakeholders' comments related to socio-economic concerns are summarised below to provide a varied perspective of the proposed prospecting activities in Concession Area 10B.

- **Stakeholder 1:**

Stakeholder 1 is a resident and farm owner in the Matzikama Municipality. In December 2021, an elephant/leopard seal was spotted in the local area, and mitigating measures must be put in place to avoid harming marine mammals like the seal recorded in the summer. The farm owner of the Waterval farm would like to know what the land impacts will be as a result of the prospecting activities. The owner of the Waterval farm owns camping spots along the coast (directly facing the concession area) and is concerned about visual and other repercussions on her tourism business, such as surfing-related activities. The Waterval farm owner requested a direct link of the notice and report. Camping grounds were previously called Strandfontein 559 for reference to see where it is on a map.

- **Stakeholder 2:**

Stakeholder 2 is an environmental compliance manager at Petroleum Agency South Africa. Stakeholder 2 requested with the shapefiles of the application area so that we can establish which petroleum exploration rights overlap with the application area in question.

- **Stakeholder 3:**

Stakeholder 3 requested that TAD register additional members as affected parties on behalf of the Matzikama Municipality.

- **Stakeholder 4:**

Stakeholder 4 acknowledges the notification of this current project and requested that TAD create a case on South African Heritage Resources Information System (SAHRIS) and upload the relevant documents. Stakeholder 4 will then assign the case officer and issue a comment in due course.

- **Stakeholder 5:**

Stakeholder 5 has requested the shapefile for Concession 10B from the Trans-Atlantic Diamonds and AEC has responded and awaiting further comments.

- **Stakeholder 6:**

Stakeholder 6 is a town and regional planner in the WCDM and the following socio-economic concerns were raised. The notification of the proposed prospecting right application in Sea Concession 10B dated 3 June 2022 and the Basic Assessment Process to be embarked upon, refer. The WCDM would like to register as an Interested and Affected Party for the proposal.

The initial comments of the WCDM are as follows:

- The applicability of the Integrated Coastal Management Act (NEMA: ICMA) with regard to the proposed prospecting needs to be highlighted in the BAR. The NEMA: ICMA provides the framework for integrated management of the coast and aims to preserve, protect, extend and enhance the status of coastal public property (CPP) and secure equitable access to the benefits and opportunities of the coast.
- The proposed prospecting site is located within 5 km of the HWM of the sea and thus situated in the CPP in terms of ICMA. The impact of prospecting and mining on the CPP must be addressed in the BAR and Environmental Management Programme (EMPr).
- Access to Coastal Public Property and the impact on tourism must be addressed in the EMPr. Access to the Matzikama coastline and beaches has already been heavily affected by prospecting and mining.
- The sound levels from acoustic equipment will impact marine and migratory species i.e. whales, dolphins, west coast rock lobster, invertebrates, fish and birds and must be addressed.
- The relevant discharge and dumping permits with regard to discharge of sediment into the marine environment need to be obtained in terms of ICMA.
- The proposal must be appropriately communicated and advertised to provide local fishing communities and community organisations the opportunity to comment on the proposal's impact on both commercial and recreational fisheries in the area.
- In view of the considerable number of prospecting and mining applications currently underway off the west coast it is recommended that a Strategic Environmental Assessment for the entire South African West Coast be conducted prior to the acceptance of further prospecting and mining applications in order to address these concerns in a strategic manner.

- **Stakeholder 7:**

Stakeholder 7 represents the Matzikama Municipality and works in the tourism department. Stakeholder 7 stated that cognisance must be taken by the general Duty of Care, as stated in Section 28 of the National Environmental Management Act, 1998:

“Every person who causes, has caused, or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing, or recurring, or, in so far as such harm cannot reasonably be avoided or stopped, to minimize and rectify such pollution or degradation of the environment”. With reference to the content of the final Background Information Document (BID) the following comments as requested:

- Due to a lack of resources and capacity within this office this office only the following concentrated and pointed out studies and resources are referred to however there are quite a few other studies and resources within this regard.
- Studies as being mentioned below has shown also that seismic disturbance may have in the water may have a massive impact on marine animals as they are very sensitive to sound disturbances in the water as is indicated by this study By Robert C. Jones Jr. 01-03-2019
- “Marine mammals use sound to communicate, navigate, and hunt for prey,” said Jill Richardson, program director and senior lecturer in the Department of Marine Ecosystems and Society at the University of Miami Rosenstiel School of Marine and Atmospheric Science. “Evolutionarily, they capitalized on the effective propagation of sound underwater, but this also makes them very susceptible to noise pollution. Airgun noise can be so pervasive, spatially, and temporally, that it can be debilitating.”
- Changes in diving and surfacing patterns, displacement from important feeding habitats, disorientation, stress, and either temporary or permanent shifts in hearing thresholds are some of the known impacts to marine mammals, according to Richardson. “And since sound is so important to their survival, the fact that they may not be able to hear each other is extremely concerning and may lead to impacts at the population level,” she said. “Imagine trying to raise a baby or communicate with friends while navigating in a concert hall where the band, essentially, never stops.”
- According to Richardson, the sounds generated by airguns can travel more than 4,000 kilometres from the source. “We are only starting to understand the impact of stress on marine mammal health, but it likely contributes to immune function disruption,” she said. “This, when layered on top of the menagerie of other emergent threats, such as exposure to contaminants and biotoxins and the loss of habitat, can lead to devastating effects on marine mammals.”
- This office is not aware of any studies or sources that consider the impact of the proposed activities impact on the environment to be positive.
- Research have also shown the Southern Right and Humpback whales pass through the West Coast in groups of 8-10 between June and December. Bryde’s whales, common dolphins, Heaviside dolphins and dusky dolphins is also spotted during the year. The southern right whale (*Eubalaena australis*) is the most spotted whale along the West Coast in the cool season between May and November. Courting pairs breach and lobtail or slap the water with their flippers while the mothers can be seen escorting their newly born calves around sheltered bays.
- Considering the above research seismic activity in the application could potentially cause great harm to the Marine Ecology and fisheries should the approval of prospecting activities leads to mining activities over a long period of time.
- The West Coast is also traditionally known for its small fishing communities which relies on fish catches from the sea for a livelihood. Taking the above research outcomes into account it is extremely important to acknowledge the fact that seismic activity effects breeding and moving patterns of fish and that it could potentially lead to a devastating decline in fish population species along the Coastal Towns.
- It is my sincere request that this application is implemented through the regulatory system of binding Marine Area Plans with detailed guidelines and spatial regulations that would steer development according to the Marine Spatial Planning Act (No. 16 of 2018) which inter alia provides a framework for Marine Spatial Protected areas in South Africa, provides for the

development of marine area plans and provides for the Institutional arrangements for the Marine Spatial Planning to govern the use of the ocean by and across multiple sectors. This act must be read in conjunction with the National MSP Framework (including the spatial management approach) and the National MSP Data and Information Report (NDR)

- Also, of concern as pointed out in the BID is the accumulative impact of the amount prospecting applications on the West Coast either from sea or land as can be seen on the map below and referred to in the summary of Potential Impacts on pg. 6 of the BID. Also see Map below of all mining and prospecting applications along this stretch of coastline (Figure 6-1).
- Each of the marked applications has some negative potential impacts on the coastline of the West Coast and it seems like collectively, it could damage or destroy the living resources and heritage of the people of the West Coast.
- With regards to the Conclusions and Recommendations of the Socio-Economic Impact Assessment even though the negative impacts of prospecting would be low the long-term impacts of mining may have devastating negative impacts on the maritime sector.
- Considering the above it is critical that the Potential Mitigation measures must form part of the EMP as pointed out on pg. 7 of the BID.
- The municipality reserves the right to request further information and revise initial comments based on any additional information that might be received.

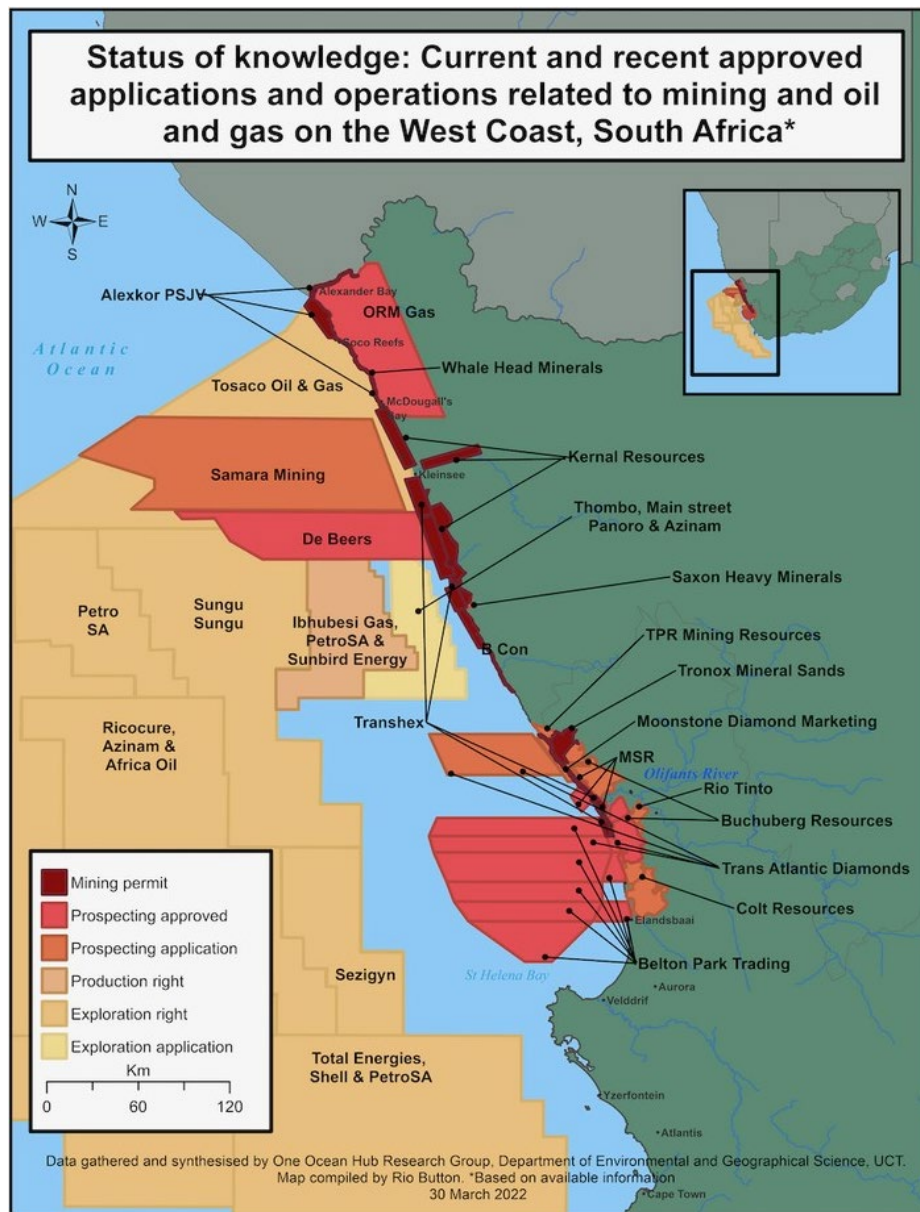


Figure 6.1: Oil and gas mining applications and operations on the West Coast, South Africa. (Note that shaded areas represent the concessions and although prospecting activities may take place over large portions of a concession area, production phase activities are typically limited to very small, focused resource targets.)

- **Stakeholder 8:**

Stakeholder 8 is a heritage officer at the South African Heritage Resources Agency (SAHRA).

Trans Atlantic Diamonds Pty Ltd has applied for the right to prospect for diamonds and other gemstones and precious metals and ferrous and base metals such as rare earths in Sea Concession Area 10B. This area covers 10 040 ha and extends from 8 km south of the border between the Western and Northern Cape (southern boundary) to 13 km south of the Groenrivier Lighthouse (northern boundary). The South African Heritage Resources Agency (SAHRA) would like to thank you for submitting the BID for the proposed Prospecting Rights and Environmental Authorisation to Prospect in the Offshore Sea Concession Area 10B.

As part of the Environmental Authorisation process a Basic Assessment Report and Environmental Management Plan must be completed. SAHRA is pleased to note that the BID has already identified that there may be impacts to Heritage during the proposed project and as such has outlined possible mitigation measures on page 10 of the document. Furthermore, as part of the assessment of the possible impact on heritage, SAHRA requires that a Heritage Impact Assessment (HIA) must be undertaken as part of the project including an evaluation of the likelihood for any shipwrecks being present in the proposed prospecting area. The HIA must include a specialist study of maritime and underwater cultural heritage to be undertaken by a suitably qualified Maritime Archaeologist. In terms of the National Heritage Resources Act, No 25 of 1999 (NHRA), Sections 2 and 35 stipulates that any wreck, being any vessel or aircraft or any part thereof older than 60 years in South Africa's territorial waters or maritime cultural zone is protected and falls under the jurisdiction of SAHRA's Maritime and Underwater Cultural Heritage Unit. These heritage sites or objects may not be disturbed without a permit from the relevant heritage resources authority. Should anything of archaeological or paleontological significance be exposed during the proposed project, work must cease immediately and SAHRA must be informed of its discovery without delay. In this event, work may not commence until feedback has been received from SAHRA.

- **Stakeholder 8:**

Stakeholder 8 represents the Department of Forestry, Fisheries, and the Environment (DFFE), Branch Oceans & Coasts (O&C) appreciates the opportunity granted to comment on the BID for Prospecting Rights and Environmental Authorization to Prospect in the Offshore Sea Concession Area 10B.

The Branch O&C has provided recommendations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), ("NEMA") and the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICM Act"). The Branch O&C has the mandate to ensure the holistic management of the coast and estuarine areas as an integrated system and promote coordinated coastal management. It ensures that the ecological integrity, natural character, and economic, social, and aesthetic value of the coastal zone are maintained to ensure that people, properties, and economic activities are protected against the impacts of dynamic coastal processes. Guided by the principles of integrated coastal management, the Branch O&C promotes developments that promote socially justified sharing of benefits derived from a resource-rich marine and coastal area and strives to ensure that the principles of sustainable development are upheld. Please note the recommendations for your consideration:

- The BID indicated that the Trans-Atlantic Diamonds Pty Ltd (the Applicant) has applied for the right to prospect for diamonds and other gemstones and precious metals and ferrous and base metals such as rare earth in Sea Concession Area 10B. This area covers 10 040 ha and extends from 8km south of the border between the Western and Northern Cape (southern boundary) to 13 km south of the Groenrivier Lighthouse (northern boundary). The boundary closest to the shore starts approximately 1 km west of the highwater mark and extends 5 km westwards from this point to a water depth of 70. The applicant is advised to conduct the proposed prospecting sustainably as South African waters play a significant role in supporting the 2 unique and diverse biotas even though this area is not a proclaimed Marine Protected Area (MPA) it contributes important ecosystem goods and services including significant fisheries resources.

- The report has identified potential impacts associated with the proposed activity and recommended mitigation measures to minimize the significant impacts. It is recommended that specialist studies be conducted to provide expert advice on the potential impacts with recommended mitigation measures to inform the Competent Authority on decision making.
- In terms of the specialist studies to be conducted, a Marine Ecology Impact Assessment should be undertaken to identify, quantify and evaluate the potential effects of the proposed mineral prospecting on marine habitats, species, and ecosystems including the ecosystem functioning and processes. This should include considerations of species richness, biodiversity, faunal densities, and community structures and incorporate measures to avoid, reduce and mitigate negative ecological impacts and their effects, and the provision of ecological enhancements.
- Heritage Impact Assessment (HIA) should be conducted to identify any heritage resources that will be impacted either directly or indirectly and provide insight into the impact of the proposed prospecting on such heritage resources and provide mitigation measures to limit the effect of that impact.
- Cumulative Impacts Assessment should be undertaken to assess the impact that arises from a result of an impact from the proposed prospecting activity interacting with an impact from another activity to create an additional impact. The assessed impacts and effects are strongly influenced by the status of the other activities such as projects already in existence, approved or proposed, and how much data is available to characterize the magnitude of their impact.
- Furthermore, a Fisheries Impact Assessment (FIA) should also be conducted considering that the western coastal shelf has highly productive commercial fisheries like other upwelling ecosystems around the world and approximately 14 different commercial fisheries sectors currently operate within South African waters therefore this assessment will best advise the suitable areas to conduct the proposed activity to avoid fishing grounds coinciding with the proposed prospecting area.
- The Branch O&C supports the creation of buffer zones around any ecological sensitive features to enhance the probability of recovery of impacted sites through local re-colonization after the prospecting and/or mining activity if the proposed activity reaches such stage.
- The Branch O&C further encourages all the operations related to the proposed four phases of sampling to avoid mortalities or injuries to marine life either by smothering/burying animals by sediment, contamination from oil spills, etc., adhere to the recommended best practice mitigation for impacts related to spills and waste generated by vessels and assess any risks associated with this activity.
- Register the Branch O&C as registered as an Interested & Affected Party for the proposed project.
- The Branch O&C will provide detailed comments and recommendations during the next public process based on the availability of specialist studies and more information.

In conclusion, the general perception of the community representatives and stakeholders are concerned mainly about the negative impacts of the proposed TAD prospecting project. The most prevalent concerns that have been raised included the harm that will be done to terrestrial, marine and coastal wildlife species; pollution; land and visual impacts and other repercussions on local tourism sector. Access to the coastline and beaches has already been heavily affected by historic and current prospecting and mining. The stakeholders reiterate that these impacts must all be addressed in the EMPr. The local communities rely on marine resources for their livelihoods and as a source of income.

The community anticipates a negative impact to several fishing industries as seismic activity affects breeding and moving patterns of fish and that it could potentially lead to a devastating decline in fish population species along the coastal line. A time-period to conduct prospecting activities were recommended by several stakeholders to minimise the socio-economic impacts associated to the proposed prospecting activities. To enhance the economic contribution of the prospecting activities, employment opportunities must be created. To compensate for the potential impacts that cannot be mitigated, an economic contribution in the form of financial support (i.e., scholarships, bursaries, and secondary education sponsorships) is recommended.

7 POTENTIAL SOCIO-ECONOMIC IMPACTS

7.1 Primary Sector

The Kamiesberg Municipality's economy is best described under the jurisdiction of the Namakwa District Municipality. The total economy of Kamiesberg only made up 7% of the district's economy in 2015. Kamiesberg Municipality accounts for the lowest contribution to the district with R665 million in 2018 growing from R525 million in 2008 (NDM 2020). The primary sector of the Kamiesberg Municipality is dependent on mainly the mining and quarrying (21.5%) and agriculture, forestry and fishing industries (10.0%) which provide most employment (KM 2018). In addition, aquaculture and conservation and ecological restoration are two emerging sectors identified since 2016. However, they do not provide sufficient employment to address the level of unemployment in the area. This is due to numerous factors such as the scarcity of water, less inland freshwater rivers to support large scale fishing, no railways, harbours and airports, amongst others. Another major concern is that most of the population live in dispersed settlements about 80 km from each other and connected via gravel roads. Hence, livestock farming has been targeted as a sector of potential growth to promote sustainable livelihoods for people (KM 2018). The agricultural activities in the Kamiesberg include sheep and goat farming, and crops consisting of fodder for livestock. There are potential opportunities for seaweed or kelp, oyster farming, marine food fish farming, abalone processing, halophytes, brine shrimp (*Artemia* sp.), and shallow water hake (KM 2018).

The three largest sectors of Matzikama Municipality's economy are agriculture, forestry, and fishing (22.7%) wholesale and retail trade, catering, and accommodation (16.8%), and manufacturing, (13.8%) (MM 2020). Agriculture, forestry, and fishing is the largest sector and contributed R 999 million to the GDP in 2018 and employed approximately 11 661 people (MM 2020). The average net annual change of the number of jobs increased by 192 between 2014 and 2018, it was anticipated to increase by 5 in 2019 (MM 2020).

The South African fisheries sector has an estimated value of R6 billion (DAFF 2021), contributing 0.1% to national GDP. Of the 22 commercial sectors (listed in SAG 2013/14) the most economically valuable, and with the greatest catch volumes, are the demersal-trawl (hake) and small-pelagic sectors (pilchards, anchovy, and red-eye round herring) (Brick & Hasson 2016; SAG 2013/14). The Western Cape is estimated to account for most of the industry value (90%), employment and income, with the primary commercial fisheries (as well as main fisheries ports, and therefore associated industry services) concentrated along the west and south coasts of South Africa (Hara *et al.* 2008; Karaan & Rossouw 2004). In the Northern Cape, Port Nolloth, Boegoebaai and Hondeklipbaai were identified as having immense potential for both harbour infrastructure, marine/aquaculture, small town precinct development, tourism and job creation through projects of Expanded Public Works Programme (EPWP).

There has been a recent increase in applications for prospecting and exploration rights along the west coast and increased prospecting/survey activity in the short term and marine mining in the long-term is anticipated. This means that cumulative impacts of marine prospecting and mining must be considered at a broader spatial scale in a strategic manner for each potential impact identified. Obtaining detailed information on the scale, extent, methodology (and hence intensity) of various current and pending applications is. However, not possible within the prescribed timeframes of a Basic

Assessment Process for a single application (such as this one). This requires a revised strategic level Environmental Impact Assessment to assess cumulative impacts with a medium to elevated level of confidence. The last strategic level Environmental Impact Assessment (EIA) that assessed marine and coastal diamond mining impacts in the region was a Benguela Current Large Marine Ecosystem Programme (BCLME) study undertaken over the period 2004–2007 (Penney *et al.* 2007).

It is, however, logical and reasonable, to anticipate that many of the potential impacts assessed for this project would continue together with other projects that are ongoing or scheduled to come on-line. The result is that the spatial extent of many impacts would change from “local” to “regional”, whilst the duration would change from “short-term” (<2 years) to at least “medium term” (2–15 years) or even “long-term” (>15 years, mostly reversible in the case of prospecting, but not always for mining). The intensity of impacts is anticipated to remain as they are assessed here for operations of this nature but may be higher for other sea-based mineral and energy projects in different areas with different objectives. The cumulative effect of each of the identified impacts is therefore provided in the Impact Assessment tables below using this precautionary approach (assumption of simultaneous / consecutive prospecting and mining activities in the region). These cumulative impacts are assessed “after mitigation”. The assessment of cumulative impacts has a “low confidence” rating due to the uncertainty of the timing and location of other anthropogenic activities in the region.

The Marine Specialist Study identified three fishery sectors (Small-pelagic purse seine, traditional line fish, and Tuna pole and line fisheries) that may overlap with the concession area, and these are briefly discussed in the following sections below. The socio-economic significance of the potential impacts that would result from the proposed prospecting activities is determined below to assist with informed decision-making in the prospecting rights application. The significance of an impact is assessed as a combination of the consequence (based on the intensity, scale and duration) of the impact occurring and the probability that the impact will occur.

7.1.1 Tuna Pole and Line

The South African tuna pole and line sector (TPL) targets longfin tuna (*Thunnus alalunga*), yellowfin tuna (*Thunnus albacares*), bigeye tuna (*Thunnus obesus*) and skipjack tuna (*Katsuwonus pelamis*) between November and May. Due to the seasonality of the TPL fishery, fishers also have access to snoek (*Thyrstites atun*) and yellowtail (*Seriola lalandi*), which are also important targets of the traditional line fishery. The tuna pole fleet consists of approximately 100 vessels ranging from small outboard powered ski boats (7-9 m length) to inboard diesel-powered deck boats (6-25 m length). The reported longfin tuna catches in 2018 was 2 471 tonnes, with a wholesale value of R 124 million, or 1.2% of the total South African commercial fisheries value (Japp & Wilkinson 2021). The commercial tuna pole fishing grounds lie between Cape Agulhas and the Orange River, but the fleet operates predominantly out of Cape Town and Hout Bay harbours and most fishing effort takes place within 100 nautical miles of these ports (particularly in the Cape Canyon area). No TPL fishing effort occurs or grid block overlaps with Concession Area 10B (Figure 7.1). Snoek fishing activity within the area is not evident. Impacts on the TPL fleet due to the proposed prospecting activities within Concession Area 10B are expected to be negligible were SCOPED OUT of assessment.

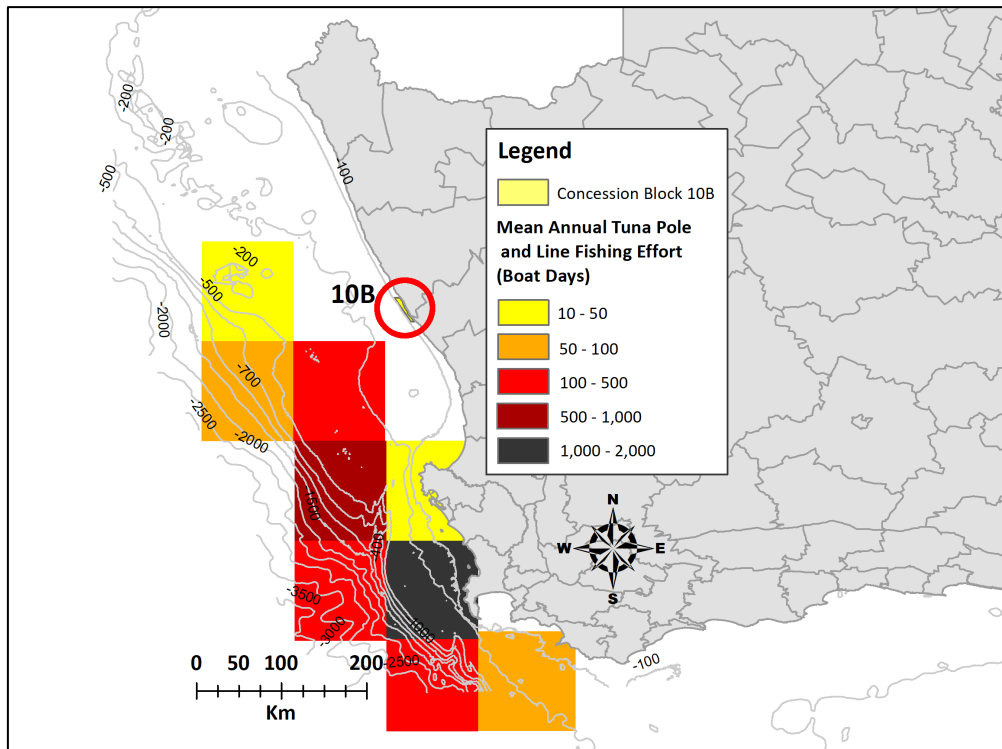


Figure 7.1 Mean annual tuna pole and linefishing effort (boat days) in relation to Concession Area 10B (Source: Norman *et al.* 2018).

7.1.2 Traditional Linefish Sector

Linefishers operate in shallow water (generally <100 m depth) and would potentially be negatively impacted by coastal and nearshore seismic exploration, prospecting and mining operations (particularly recreational, small-scale and subsistence shore fishing). Most (85%) subsistence fishers in South Africa employ traditional line fishing methods, which is generally considered labour intensive and associated to low revenue output (Brick & Hasson 2016). Traditional linefishers use simple handheld lines or rod with no more than 10 baited hooks per line, whereas the commercial linefishers use motorised boats and is managed by Total Applied Effort (TAE) (DAFF 2013). The traditional line fishing sector targets multiple species (up to 200 species) of which 95 species are commercially and recreationally significant (DAFF 2013). The line fisheries along the west coast (Line fish management Zone A - Orange River to Cape Infanta) mostly target the nomadic coastal migrant species, snoek (*Thyrsites atun*) and yellowtail (*Seriola lalandi*), as well as the reef dwelling Hottentot Sea bream (*Pachymetopn blochii*). Snoek typically contributes the greatest catch by weight in the commercial line fisheries (total landings of up to 5 800 tonnes) (Kerwath *et al.*, 2017). The management framework includes a comprehensive suite of line fish regulations including minimum size limits, daily bag limits, closed seasons, closed areas, commercial fishing bans for certain species and the capping of the commercial effort with zonal based Total Allowable Effort (TAE) (Kerwath *et al.* 2017).

Linefishers operate in shallow water (generally <100 m depth) and would potentially be negatively impacted by coastal and nearshore seismic exploration, prospecting and mining operations (particularly recreational, small scale and subsistence shore fishing). A spatial analysis of the reported commercial line fish catch data however, shows no overlap with traditional line fishing activity on

concession Area 10B (Figure 7.2). The proposed prospecting in Concession Area 10B is therefore expected to have a negligible socio-economic impact on the direct and indirect dependants from the traditional linefishing sector and the potential impacts of prospecting on the linefishing sector were SCOPED OUT of assessment.

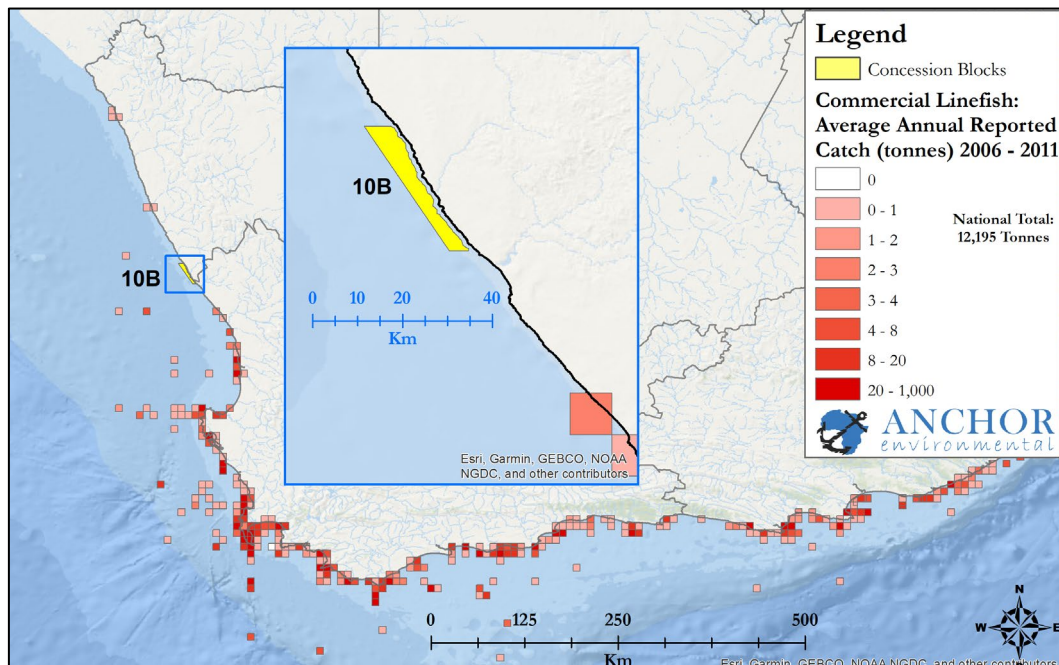


Figure 7.2 Reported annual commercial linefishing catch the calculated proportion of the average national total catch made within Concession Area 10B (Data source: DFFE).

7.1.3 Small Pelagic Purse Seine Fisheries

The small pelagic purse seine fishery has the largest catch (volume) for any of the South African fishery sectors and has the second largest annual catch value estimated at around R2.164 billion in 2017, which is approximately one fifth of the combined value of South African Fisheries (Japp & Wilkinson 2021). The industry supports around 4 500 full time staff, 2 500 seasonal staff and more than 700 fishers. The supporting industries contribute an estimated additional 2 400 jobs. The management of the small pelagic purse seine fishery is described in the Marine Specialist Report (Hutchings *et al.* 2022).

The small pelagic purse seine fishery operates between the Orange River and East London mostly in nearshore waters (within 10 km of the coast). On the West Coast, the major landing sites for the small pelagic fleets are in St Helena Bay. Other small pelagic purse seine landing and processing sites are found on the south and east coasts at Gansbaai, Mossel Bay and Port Elizabeth (Gqeberha) harbours. Sardines (*Sardinops sagax*) are usually frozen or canned for human consumption, used as pet food and bait whereas anchovy horse mackerel and redeye round herring (*Etrumeus whiteheadi*) are reduced to fishmeal, fish oil and fish paste in factories situated predominantly on the West Coast. The Concession Area 10B falls within the extensive west coast nursery ground that is utilised by several small pelagic fish species including sardine, horse mackerel (*Trachurus capensis*) and anchovy (*Engraulis capensis*) that utilise Agulhas Bank and west coast spawning grounds (Hutchings *et al.* 2022).

The Concession Area 10B, however lies well north of the identified fishing grounds and priority fishing areas for anchovy and sardine (Figure 7.3).

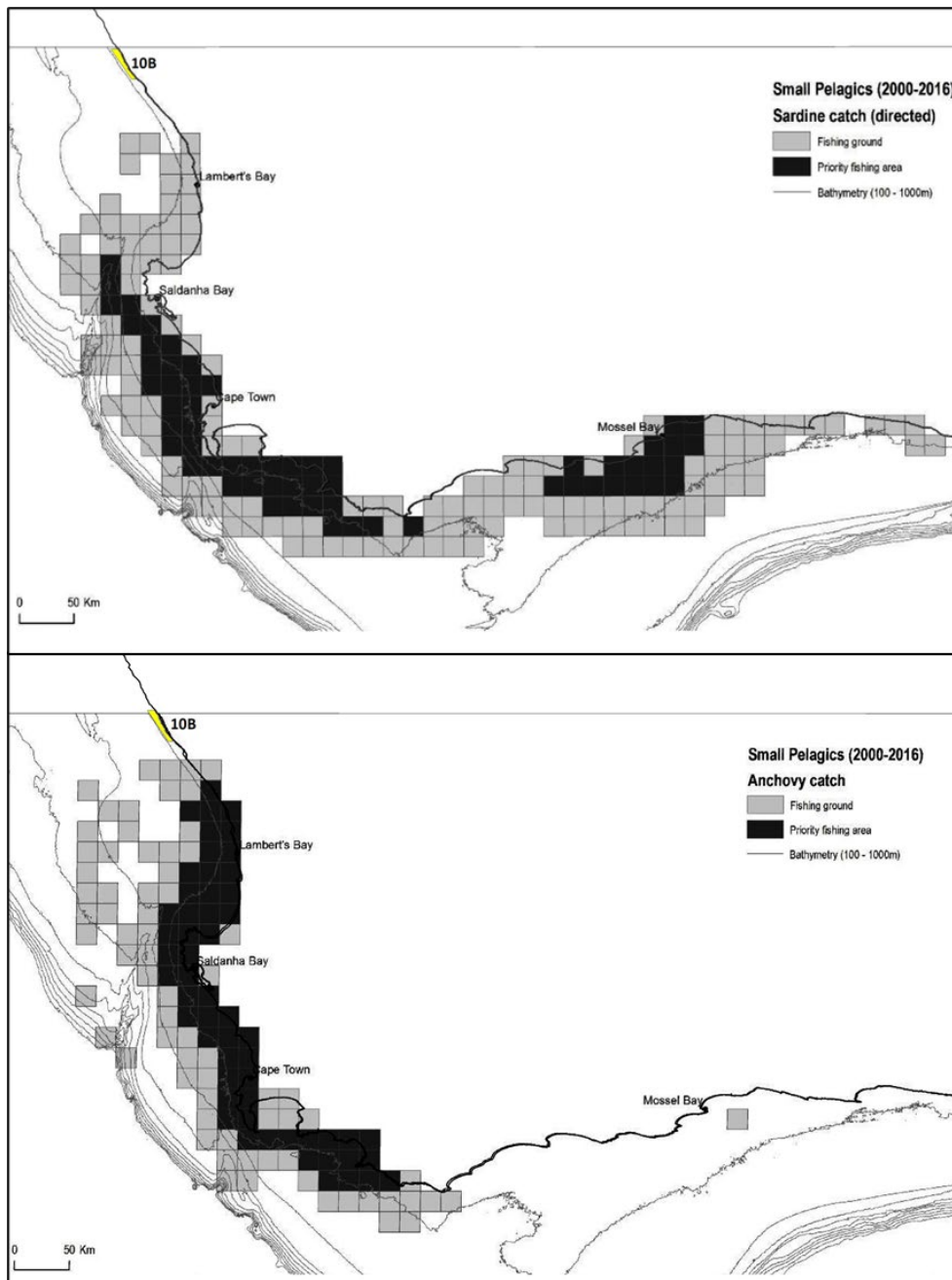


Figure 7.3 Spatial distribution of sardine (top) and anchovy (bottom) purse seine catch (2000-2016) with identified priority fishing areas (Source: Norman *et al.* 2018).

A quantitative spatial analysis using commercial catch return data (all small pelagic species combined) shows that Concession Area 10B partially overlaps only a single small pelagic reporting grid blocks, where an annual average of 0.088 tonnes of fish were landed between 2006-2011 (Figure 7.4). This is equivalent to about 0.0001% of the national total catch. This percent is not considered a substantial proportion of the national catch, furthermore, the target species are pelagic, and their distribution is variable, so the fishery is unlikely to be significantly negatively affected by small temporary

closures/exclusion zones around survey vessels and geotechnical survey sites. The socio-economic impact is assessed as ‘very low’, and ‘insignificant’ after recommended mitigation measures (Table 7-5).

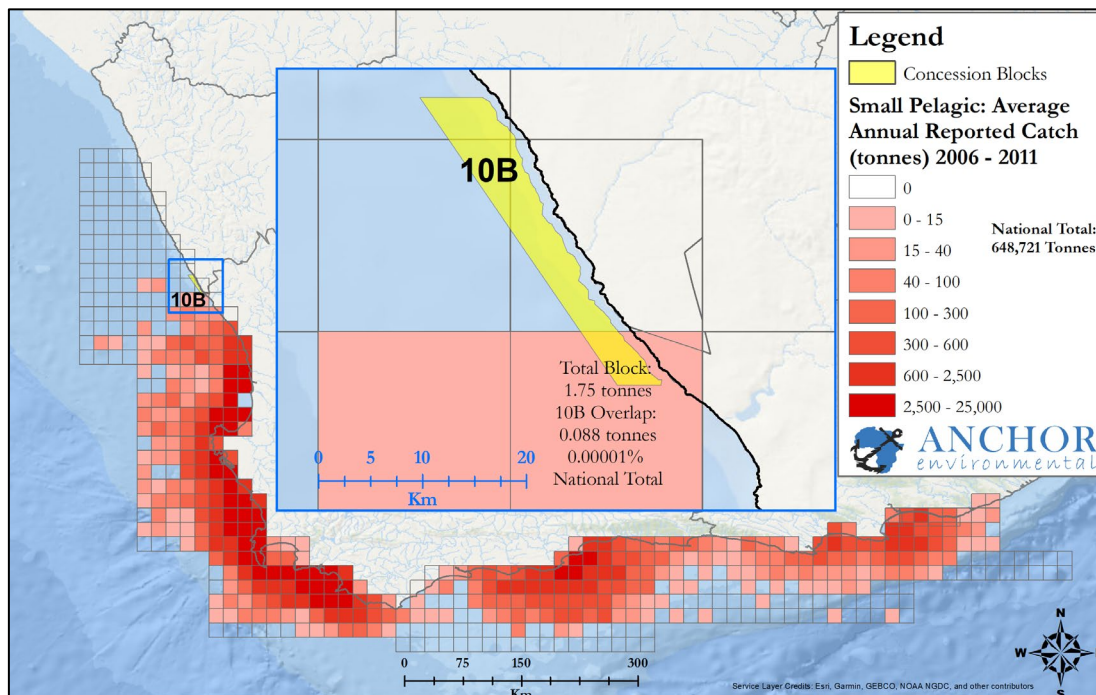


Figure 7.4 Average annual reported small pelagic catch 2006-2011 (tonnes) and the calculated proportion of the average national total catch made within Concession Area 10B (Data source: DFFE).

Table 7-1 Impact rating of the prospecting activity on the Small Pelagic Purse Seine Fisheries.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|--|------------|-----------|-----------------|---------------|-------------|----------------------|--------|------------|
| Without mitigation | Local 1 | Low 1 | Short-term 1 | Very Low 3 | Probable | VERY LOW | -ve | High |
| Essential mitigation measures: | | | | | | | | |
| <ul style="list-style-type: none"> Undertake surveys when fishing effort is lower (preferably outside of fishing seasons). Appoint a Fisheries Liaison Officer (FLO) to facilitate communication with the Small Pelagic Purse Seine Fishing Industry Association. The FLO should report daily on vessel activity and respond and advise on action to be taken in the event of encountering purse seine fishing vessels in the survey area. | | | | | | | | |
| With mitigation | Local 1 | Low 1 | Short term 1 | Very Low 3 | Possible | INSIGNIFICANT | -ve | High |

Table 7-2 Cumulative Impact rating of the prospecting activity on the Small Pelagic Purse Seine Fisheries.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|-------------------|---------------|-----------|----------------|-------------|-------------|---------------|--------|------------|
| Cumulative impact | Regional 2 | Low 1 | Long-term 3 | Medium 6 | Probable | MEDIUM | -ve | Low |

7.2 Tertiary Sector

The tertiary sector contributes the most to the Gross Value Added (GVA) within the Namakwa District Municipality (47.3%) followed by the primary sector (46.4), while the secondary sector (6.4%) contributed the least in 2018. Kamiesberg Municipality's contribution to the GDP was from the following sectors, general government services (19.4%); community, social and personal services (18.1%); wholesale and retail trade, catering, and accommodation (14.3%). Other sectors such as finance, insurance real estate and business services (6.2%); construction (5.5%); manufacturing (3.3%); transport, storage, and communication (1.5%) and to a lesser extent electricity, gas and water (0.1%) contributes to the Kamiesberg Municipality's economy (KM 2018).

The tertiary sector of Matzikama Municipality contributed R2261 million to the GDP, of which wholesale, retail trade, catering and accommodation contributed R741 million. This sector contributed to 5 189 employment opportunities with an average annual growth of 131 jobs over the period 2014 to 2018. The socio-economic significance of the potential impacts that would result from the proposed prospecting activities on the tertiary sector is determined below.

7.2.1 Impact on Aquaculture

Aquaculture is an emerging industry that is vital to socioeconomic growth in south Africa contributing 0.8% of fish production which amounts to R0.7 billion (0.2%) to South Africa's GDP (DAFF 2016). Most of the aquaculture enterprises are found in Western Cape (56%) followed by Eastern Cape (17%) and all the other provinces including Northern Cape (3%) account for less than 10% (Figure 7.5). There is no known freshwater aquaculture in the Kamiesberg- and Matzikama Municipalities that are of significance. Freshwater aquaculture is tremendously restricted by the supply of suitable water. Very few areas may exploit freshwater fish in rivers and man-made impoundments for recreational purposes. This is due to limited number of aquaculture developments as the environment is extremely arid and hostile, having small villages scattered with distance ± 80 km between them. On the other hand, marine aquaculture or mariculture is far more established and include the farming of prawns, crabs, oysters and mussels (bivalves), finfish, abalone, kelp, and seaweed species. On the West Coast, sea-based mariculture is primarily occurring in Saldanha Bay, whilst land-based abalone farms are established at Jacobsbaai, Doringbaai and Kleinzee; oyster farming is also conducted at Kleinzee and abalone ranching takes place in four Northern Cape concession areas (three between Port Nolloth and Hondeklipbaai and one recently established at Doringbaai). Aquaculture is, however, not evident in the immediate vicinity of Sea Concession Area 10B and was therefore SCOPED OUT of the assessment.

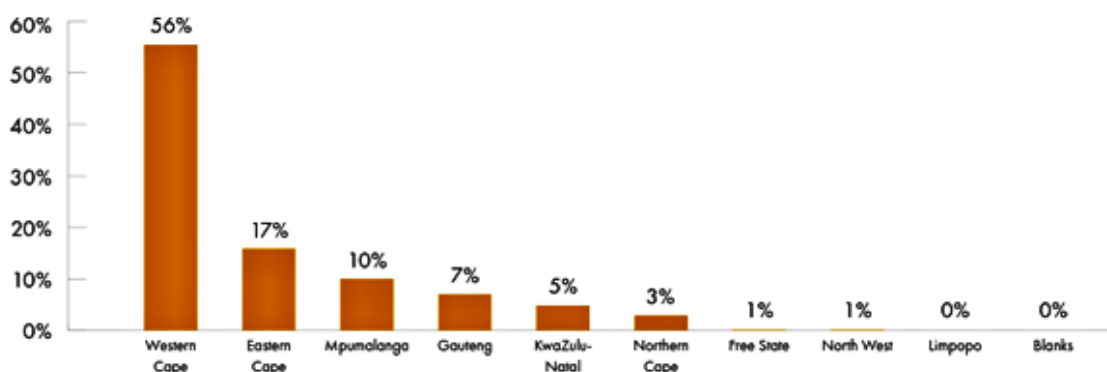


Figure 7.5 Provincial contribution of aquaculture enterprises in South Africa (AgriSETA Employer Data, 2019/20)

7.2.2 Impact on Local Tourism and Businesses

The Namaqualand is recognised internationally as a global centre for plant, reptile and insect diversity and endemism. It is situated in the northwest corner of Southern Africa forming part of the larger Succulent Karoo biome. The Namaqualand is major tourist attraction region. However, it is more popular during the flower season. The Kamiesberg lies within the Namaqualand and is known for its natural and cultural heritage. Unfortunately, the municipality is faced with various challenges such as the lack of financial and human resources, the seasonality of tourism activity and a limited tourism infrastructure (KM 2021). The establishment of Small, Medium and Micro Enterprises (SMMEs) is one sector the municipality hopes to pursue and ensure its productivity to support the tourism economy in this area. The Kamiesberg Municipality has targeted three key areas to improve their tourism sector namely, The Uplands (mountainous land), The Plateau (midlands along the N7) and the Coast. These keys areas will be promulgated through culture and heritage, arts and crafts, natural wonders and landscapes and tourism infrastructure. The municipality's Local Economic Development (LED) strategy is to improve their current strengths and implement identifies opportunities (Table 7-7).

Table 7-3 Strengths and opportunities identified by the Kamiesberg Municipality (Source: IDP 2021)

| Strengths | Opportunities |
|---|--|
| <ul style="list-style-type: none"> • High quality & unspoiled environment • Diversity of scenic landscapes and vast amounts of open land • Diversity of local cultures • Historical networks linked mainly to agricultural history (Khoi-San) • Harbour at Hondeklipbaai • Flowers – flower season • Sun – renewable energy potential • Ocean – mariculture potential • Abundant workforce • N7 link to Namibia | <ul style="list-style-type: none"> • Growth in tourism (N7 link to Namibia) • Unexploited mineral opportunities • Brand development • Strengthening local government spheres • EPWP, SETAs and learnerships • Renewable energy • Mariculture • Opportunities for technology to fill gaps • Agro-processing and technology innovations |

The Namaqua West Coast Tourism Report (de Jager 2019) proposed several strategic tourism deliverables for the Namaqua West Coast region according to the Local Economic Development (LED) objectives of the Matzikama Municipality. Strategic objectives that are currently underway in towns such as Doringbaai, Papendorp, Griqua Ratelgat, Strandfontein and surrounding areas are to develop the tourism routes along Viswater, Hardeveld, Doringbaai-Ebenhaeser; homestays, guesthouse and resort establishments, tour guide training, trail developments, alien clearing initiatives (optimal use and manage local resources), and marketing of the Matzikama Municipality as an eco/adventure/heritage region.

To develop the tourism sector in the Namaqua West Coast region, the following objectives were proposed:

1. Develop and package tourism products.

2. Market Namaqua West Coast as a destination.
3. Ensure tourism quality and standards.
4. Practice responsible tourism.

Both Kamiesberg- and Matzikama Municipalities have the potential for local economic growth through the development of their tourism sectors. Although there are not many residential areas, guesthouses, restaurants, and other businesses along the coast where the Sea Concession Area 10B is situated, it is highly improbable that the TAD prospecting project could potentially impact the tourism sector of these municipalities. The creation of plumes, discolouring the water during the operational phase could possibly result in an aesthetically displeasing view for local farmers and tourist visiting the small West Coast town, but it is highly unlikely that these plumes would be visible from the shore. Therefore, due to the local and temporary nature of the proposed prospecting activities the potential impact on the tourism industry is very low and was reduced to insignificant after minor mitigation measures (Table 7-8).

Table 7-4 Impact of proposed prospecting on small business and tourism.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|--|------------|-------------|-----------------|---------------|-------------|----------------------|--------|------------|
| Without mitigation | Local 1 | Medium 2 | Short-term 1 | Very Low 4 | Probable | VERY LOW | -ve | Medium |
| Essential mitigation measures: | | | | | | | | |
| <ul style="list-style-type: none"> • Monitor water-quality surrounding the sediment plumes. • Should any negative visual impacts be detectable, restrict prospecting activities during important tourism events and seasons. • Should any negative visual impacts be detectable, restrict operational activities to the section of the concession area out of sight from the shore. | | | | | | | | |
| With mitigation | Local 1 | Low 1 | Short term 1 | Very Low 3 | Improbable | INSIGNIFICANT | -ve | Medium |

Table 7-5 Cumulative Impact rating of the prospecting activity on tourism and small business.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|-------------------|---------------|-----------|----------------|-------------|-------------|--------------|--------|------------|
| Cumulative impact | Regional 2 | Low 1 | Long-term 3 | Medium 6 | Possible | LOW | -ve | Low |

7.2.3 Sense of Place and Health and Wellbeing

Sense of place is defined as the emotional relationship that you feel or experience in a particular location or environment which can have either positive connotation (e.g., safety and well-being) or negative connotations (e.g., fear) (Foote & Azaryahu 2009). It can also refer to a distinct character of an environment (Foote & Azaryahu 2009). The sense of belonging is deeply embedded in the history

of the Khoisan people who were historically concentrated in the highlands of the Kamiesberg- and Matzikama municipal areas from where they migrated to other parts of the Namaqualand and other places in south Africa. The Khoisan people's history contributed immensely to the rich cultural heritage in these municipalities. In addition, the residents and community have a spiritual connection to the ocean and have used this region for fishing for generations. The impact of the prospecting vessels may negatively impact all visible receptors (community and tourists) in the area, affecting the unique character of the coastline and the following local bays: Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and to a lesser extent Malkopbaai. However, due to the offshore location and temporary nature of the proposed prospecting, the potential impact of the proposed prospecting activity is insignificant with no mitigation measures required (Table 7-10).

Table 7-6 Impact of proposed prospecting on sense of place.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|--|------------|-----------|-----------------|---------------|-------------|----------------------|--------|------------|
| Without mitigation | Local 1 | Low 1 | Short-term 1 | Very Low 3 | Probable | INSIGNIFICANT | -ve | High |
| No mitigation measures required | | | | | | | | |

Table 7-7 Cumulative Impact rating of the prospecting activity on sense of place.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|-------------------|---------------|-----------|----------------|-------------|-------------|--------------|--------|------------|
| Cumulative impact | Regional 2 | Low 1 | Long-term 3 | Medium 6 | Improbable | LOW | -ve | Low |

7.2.4 Local Households

The local communities regard marine resource in the nearshore, and offshore environment to a certain extent as valuable for both their household income and livelihoods. However, there are no major coastal towns and spatially fragmented settlement patterns are evident in the areas inland of Concession Area 10B. The majority of the population live in dispersed settlements, approximately 80 km from each other and connected with gravel roads. There are no settlements along the shore in the vicinity of the concession Area 10B. The Kamiesberg- and Matzikama Municipalities have targeted farming as a sector for economic growth, various projects to support commercial and emerging farmers are either underway, ongoing or completed. There are approximately five households or habitations along the shore adjacent to Concession Area 10B and little is known about their main source of income and livelihoods. The impact on local households is considered Insignificant with impacts improbable (< 40% chance of occurring) (Table 7-12).

Table 7-8 Impact of proposed prospecting on local households.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|--|------------|-----------|-----------------|---------------|-------------|----------------------|--------|------------|
| Without mitigation | Local 1 | Low 1 | Short-term 1 | Very Low 3 | Improbable | INSIGNIFICANT | -ve | High |
| No mitigation measures required | | | | | | | | |

Table 7-9 Cumulative Impact rating of the prospecting activity on local households.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|-------------------|---------------|-----------|----------------|-------------|-------------|--------------|--------|------------|
| Cumulative impact | Regional 2 | Low 1 | Long-term 3 | Medium 6 | Improbable | LOW | -ve | Low |

7.2.5 Local Crime

The Kamiesberg Municipalities have serious social crimes such as alcohol and drug abuse, illegal mining and selling of endangered species, violence and property crimes. The Kamiesberg IDP report (2021) has not provided statistics on the level of crime in the municipality. However, crime provides challenges and impedes growth of any municipality. Conversely, the Matzikama Municipality crime statistics showed that drug related crime and residential burglaries decreased from 2019 to 2020, whilst murder and driving under the influence increased (MM 2020, KM 2021). The overall safety and security of the municipality buildings experience theft, burglary and vandalism which is largely exacerbated over the weekends and evenings (MM 2020). The proposed TAD will occur offshore at sea and opportunities of crime are minimal. The proposed prospecting will occur offshore at sea, crew members will not be able to come ashore and therefore the risk of an increase in the level of crime is, negligible and this impact was therefore SCOPED OUT of the assessment.

7.3 Potential Positive Impacts

7.3.1 Economic Performance (Local and regional)

Mining is economically important as it can create broad scale employment opportunities and boost the national and local economy. Little is known about the local development plans of existing mines in terms of provision of employment opportunities to the locals in the surrounding towns. Should prospecting reveal an economically viable resource and the project proceed to production phase, TAD guarantees and will make provision of 30 employment opportunities. Many of these positions will likely be filled directly from within the surrounding communities. If not readily found, training could be provided (Table 7-16). Training opportunities will be available for people with several types and levels of skills. The potential impact on the socio-economic performance is, however, likely to be insignificant on a local scale (Table 7-17).

Conversely, investment from TAD in South Africa will have a greater positive impact on the regional economy. TAD should aim to incorporate codes of good practice on Broad Based Black Economic Empowerment issued under Section 9 of the Broad Based Black Economic Empowerment Act, Act 53 of 2003, as amended by Act 46 of 2013. Therefore, the following resource support aims are recommended:

- At least 25% from cost of sales, excluding labour cost and depreciation, must be procured from local producers or local suppliers in South Africa.
- 50% of jobs created are for people of colour, and B-BBEE measurements must be maintained. Employment opportunities that could be fulfilled:
 - Employment of local security companies.
 - Employment allocated to port duties
 - If feasible, employment of local small-scale fishers' vessels as support vessels during survey operations.
 - Employment of local or national geologists, a vessel manager, captain, crew members, scientists etc.
- At least 25% transformation of raw material or beneficiation which includes local manufacturing, production and/or assembly, and/or packaging, or at least 85% of labour costs paid to South African employees by service industry organizations
 - Prospecting equipment can be sourced within South Africa or neighbouring communities.
- Skills transfer – Training opportunities:
 - Environmental officers
 - Health and Safety Officers
 - Marine Mammal Observers (MMO's) and Passive Acoustic Monitoring (PAM) operators
 - General crew/ deck member
 - Commercial divers to help with surveys

Table 7-10 Personnel requirement for the operational phase (mining) of the TAD project.

| Personnel requirements | Department | Position | Community Sourced | Training |
|------------------------|------------|-----------------|-------------------|----------|
| Ship's crew | Nautical | Deckhands | 3 | 3 |
| | Engineer | Electrician | 1 | 0 |
| | | Greaser | 2 | 1 |
| | Catering | Chief Cook | 1 | 0 |
| | | Assistant Cook | 2 | 2 |
| | | Steward(ess) | 4 | 4 |
| Operation Crew | Plant | Plant operators | 4 | 2 |
| | | Chief sorter | 1 | 0 |
| | | Sorters | 3 | 3 |

| Personnel requirements | Department | Position | Community Sourced | Training |
|------------------------|------------|--------------|-------------------|-----------|
| | General | Storeman | 1 | 1 |
| | | Boiler Maker | 1 | 0 |
| | | Welder | 2 | 0 |
| | | Mine Helper | 2 | 0 |
| Total | | | 27 | 16 |

Table 7-11 Impact rating of the prospecting activity on the local and regional socio-economic performance.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|--|------------|-------------|-----------------|---------------|-------------|----------------------|--------|------------|
| Without mitigation | Local 1 | Medium 2 | Short-term 1 | Very Low 4 | Possible | INSIGNIFICANT | +ve | Medium |
| No mitigation measures required | | | | | | | | |

Table 7-12 Cumulative Impact rating of the prospecting activity on local and regional socio-economic performance.

| | Extent | Intensity | Duration | Consequence | Probability | Significance | Status | Confidence |
|-------------------|---------------|-------------|----------------|-------------|-------------|---------------|--------|------------|
| Cumulative impact | Regional 2 | Medium 2 | Long-term 3 | High 7 | Possible | MEDIUM | +ve | Low |

8 CONCLUSIONS AND RECOMMENDATIONS

The potential negative socio-economic impacts of prospecting in concession 10B are anticipated to be very low for both the primary and tertiary sector services (fishing, tourism etc.). Positive impacts associated with the proposed prospecting activities are limited but will likely result from compensation recommendations, such as employment opportunities, and skills development programs should the project proceed to the production phase.

Anchor Environmental Consultants (Pty) Ltd were requested to undertake a socio-economic assessment for Trans Atlantic Diamonds (Pty) Ltd who are applying for a diamond prospecting right for Concession Area 10B, an offshore concession (10 040 ha) situated from 8 km south of the border between the Western and Northern Cape to 13 km south of the Groenriviermond Lighthouse. The proposed prospecting activity is anticipated to potentially impact coastal communities in the Kamiesberg- and Matzikama Municipalities, particularly Sewejaarskop se mond, Hoekbaai, Kefferbaai, Strandbaai, and to a lesser extent Malkopbaai, which is further south of the Concession Area 10B. A brief overview of the economic performance was discussed and placed in relation to the potential impacts associated to the proposed survey area. The likelihood of the proposed survey to impact the socio-economic standing of areas surrounding concession area 10B was rated, based on available resources (i.e., Marine Specialist Report 2006, wider literature and spatial development frameworks), and the significance of impacts were reported on. Important user groups were identified and potential impacts from the proposed exploration and prospecting activities were identified. Impacts were assessed and, where possible, compensation and mitigation measures have been identified to avoid/minimise/reduce any impacts.

Negative potential impacts associated with the proposed activities are mostly assessed as “Very Low” significance. After mitigation measures were applied, negative potential impacts associated with the proposed activities were reduced to ‘Insignificant’. Potential impacts associated to the seismic survey and sampling/prospecting activities were identified as: Temporary disturbance of marine resources and exclusion of fishing vessels from a safety area around the survey vessel whilst it is operational in the Concession Area 10B potentially impacting fisher group users (i.e., 1) small pelagic purse seine fisheries); 2) impact on small businesses and local tourism; 3) impact on sense of place and health and wellbeing; 4) impact on local households; and 5) local socio-economic performance. The four potential impacts may negatively affect the livelihoods and household income of marine fisheries group. Although, these potential impacts associated to the proposed prospecting activity are of very low significance, it should be emphasized that the influence regarding the decision on the application of the proposed prospecting activity should take into account the poor economic performance of the nearby coastal communities’ particularly those with high dependence on marine resources to support household income and livelihoods.

To mitigate against the potential prospecting impacts, it is recommended that mitigation measures and communication protocols must be further developed in consultation with local stakeholders so that effective and mutually acceptable mitigation measures can be implemented during seismic survey, prospecting and future mining phase activities. Communication protocols should inform on all prospecting activities including timelines and impacts. A “living framework” such as a Monitoring and Evaluation Plan (M&EP) for identifying, monitoring, assessing, and evaluating TAD Corporate Social Responsibility (e.g., employment and training opportunities) and socio-economic impacts should be

developed. This framework should be developed with IAPs and surrounding community representatives that are potentially impacted by the TAD prospecting project. Adherence to the M&EP is necessary to ensure that socio-economic deliverable is met. In addition, TAD should aim to incorporate codes of good practice on Broad Based Black Economic Empowerment issued under the section 9 of the Broad Based Black Economic Empowerment Act, Act 53 of 2003, as amended by Act 46 of 2013. This will include skills transfer programmes, job creation, and supporting local service industry organizations such manufacturing, production and/or packaging services.

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