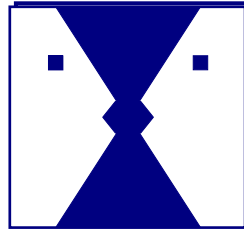


Proposed Motouane 386 Exploration Right Application

Social Scoping Report



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Prepared for:
EIMS

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Executive Summary

The purpose of this document is to provide a baseline description of the receiving socio-economic environment and to identify potential social impacts associated with the proposed Motouane 386 Exploration Right Application.

The receiving environment is located in the Matjhabeng Local Municipality and Moqhaka Local Municipalities that is located in the Lejweleputswa District Municipality and Fezile Dabi District Municipality respectively in the Free State Province. The closest towns are Welkom, Theunisen, Henneman, Ventersburg and Odendaalsrus. The economy of the district relies heavily on the gold mining sector. Agriculture is also one of the key drivers of the economy.

A number of preliminary social and economic impacts have been identified through the lifecycle of the project. These will be assessed in more detail during the social impact assessment, and it is possible that additional impacts may emerge during this process and that the preliminary ratings may change.

At this stage none of these possible impacts is seen as a fatal flaw in the possible successful execution of the proposed project. Most of the potential impacts can be mitigated. The importance of addressing the potential impacts as early in the project cycle as possible must be underlined, since failure to do so may result in the development of risks and an exponential increase in project cost.



Declaration of Independence

Equispectives Research and Consulting Services declare that:

- All work undertaken relating to the proposed project was done as independent consultants.
- They have the necessary required expertise to conduct social impact assessments, including the required knowledge and understanding of any guidelines or policies that are relevant to the proposed activity.
- They have undertaken all the work and associated studies in an objective manner, even if the findings of these studies were not favourable to the project proponent.
- They have no vested interest, financial or otherwise, in the proposed project or the outcome thereof, apart from remuneration for the work undertaken under the auspices of the above-mentioned regulations.
- They have no vested interest, including any conflicts of interest, in either the proposed project or the studies conducted in respect of the proposed project, other than complying with the relevant required regulations; and
- They have disclosed any material factors that may have the potential to influence the competent authority's decision and/or objectivity in terms of any reports, plans or documents related to the proposed project as required by the regulations.



Record of Experience

Ilse Aucamp and San-Marié Aucamp compiled this report.

Ilse Aucamp holds a D Phil degree in Social Work obtained from the University of Pretoria in 2015. She also has master's degree in environmental management (Cum Laude) from the Potchefstroom University for Christian Higher Education, which she obtained in 2004. Prior to that she completed a BA degree in Social Work at the University of Pretoria. She is frequently a guest lecturer in pre- as well as post-graduate programmes at various tertiary institutions. Her expertise includes social impact assessments, social management plans, social and labour plans, social auditing, training as well as public participation. She is a co-author of the newly published *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* document published by the International Association for Impact Assessment.

San-Marié Aucamp is a registered Research Psychologist with extensive experience in both the practical and theoretical aspects of social research. She has more than 20 years' experience in social research and she occasionally presents guest lectures on social impact assessment. Her experience includes social impact assessments, social and labour plans, training, group facilitation as well as social and marketing research in a range of sectors such as mining, manufacturing, utilities, government, automotive, financial services, telecoms and IT as well as FMCG. She occasionally presents guest lectures at tertiary institutions. San-Marié is a contributor to the international guidance document on assessing and managing social impacts for projects that was published by IAIA International in 2015. She is currently busy with her PhD in Consulting Psychology.



Table of Contents

1	INTRODUCTION	5
2	SCOPE OF WORK.....	10
3	METHODOLOGY.....	11
3.1	Information base	11
4	LEGISLATIVE AND POLICY FRAMEWORK.....	12
4.1	The Constitution of the Republic of South Africa 1996.....	12
4.1.1	The National Environmental Management Act 107 of 1998	13
4.1.2	The National Water Act 36 of 1998	15
4.1.3	The Mineral and Petroleum Resources Development Act 28 of 2002	15
4.1.4	The National Heritage Resources Act 25 of 1999	18
4.1.5	Promotion of Administrative Justice Act 3 of 2000	19
4.1.6	Gas related legislation.....	19
4.2	National and international standards	20
4.2.1	ISO 26000:2010/SANS 26000:2010.....	21
4.2.2	International Social Performance Standards/Initiatives.....	22
4.2.3	International Principles for SIA	23
4.3	Additional governance tools.....	25
4.3.1	Integrated Development Plans	25
4.3.2	Provincial Growth and Development Strategies.....	28
4.3.3	National Development Plan	30
4.3.4	Sustainable Development Goals	32
5	RECEIVING ENVIRONMENT.....	33
5.1	Description of the area.....	34
5.1.1	Free State Province	34
5.1.2	Lejweleputswa District Municipality.....	35
5.1.3	Matjhabeng Local Municipality.....	36
5.1.4	Fezile Dabi District Municipality.....	36
5.1.5	Moqhaka Local Municipality	36
5.2	Description of the population.....	37
5.2.1	Population and household sizes	39
5.2.2	Population composition, age, gender and home language	43
5.2.3	Gender	46
5.2.4	Language	47
5.2.5	Education	48
5.2.6	Employment.....	49
5.2.7	Household Income	51
5.2.8	Housing	52



5.2.9	Household Size.....	55
5.2.10	Access to water and sanitation.....	56
5.2.11	Energy	59
5.2.12	Refuse removal	60
6	STAKEHOLDER IDENTIFICATION AND ANALYSIS	61
6.1	Approach.....	61
6.2	List of stakeholders	61
7	DESCRIPTION OF POTENTIAL IMPACTS.....	63
7.1	Social changes versus social impacts.....	63
7.2	Preliminary social impacts.....	65
8	DETAILED PLAN OF STUDY FOR THE EIA AND EMP.....	71
9	CONCLUSION	72
10	REFERENCES	73



List of Figures

Figure 1: Locality of proposed Motuoane 386 Production Right.	5
Figure 2: Population distribution (shown in percentage, source: Census 2011, Census 2022)	43
Figure 3: Age distribution (shown in percentage, source: Census 2011), Census 2022.....	45
Figure 4: Gender distribution (shown in percentage, source: Census 2011, Census 2022)....	46
Figure 5: Language distribution (shown in percentage, source: Census 2011, Census 2022)	47
Figure 6: Education profiles (those aged 20 years or older, shown in percentage, source: Census 2011, Census 2022)	48
Figure 7: Labour status (those aged between 15 - 65 years, shown in percentage, source: Census 2011)	49
Figure 8: Employment sector (those aged between 15 - 65 years, shown in percentage, source: Census 2011, Census 2022)	50
Figure 9: Annual household income (shown in percentage, source: Census 2011)	51
Figure 10: Dwelling types (shown in percentage, source: Census 2011, Census 2022).....	53
Figure 11: Tenure status (shown in percentage, source: Census 2011, Census 2022)	54
Figure 12: Household size (shown in percentage, source: Census 2011, Census 2022)	55
Figure 13: Water source (shown in percentage, source: Census 2011, Census 2022)	56
Figure 14: Piped water (shown in percentage, source: Census 2011, Census 2022).....	57
Figure 15: Sanitation (shown in percentage, source: Census 2011)	58
Figure 16: Energy source for lighting (shown in percentage, source: Census 2011, Census 2022)	59
Figure 17: Refuse removal (shown in percentage, source: Census 2011, Census 2022)	60

List of Tables

Table 1: Population density and growth estimates (sources: Census 2011, Census 2022)	39
Table 2: Household sizes and growth estimates (sources: Census 2011, Census 2022	40
Table 3: Dependency ratios (source: Census 2011;2022).	40
Table 4: Poverty and SAMPI scores (sources: Census 2011 and Community Survey 2016). ..	42
Table 5: Average age (source: Census 2011, Census 2022).	43



Table 6: Geotypes (source: Census 2011, households) 52

Table 7: Detail of Stakeholder Groups. 61

Table 8: Preliminary impacts in the different phases of the project..... 65



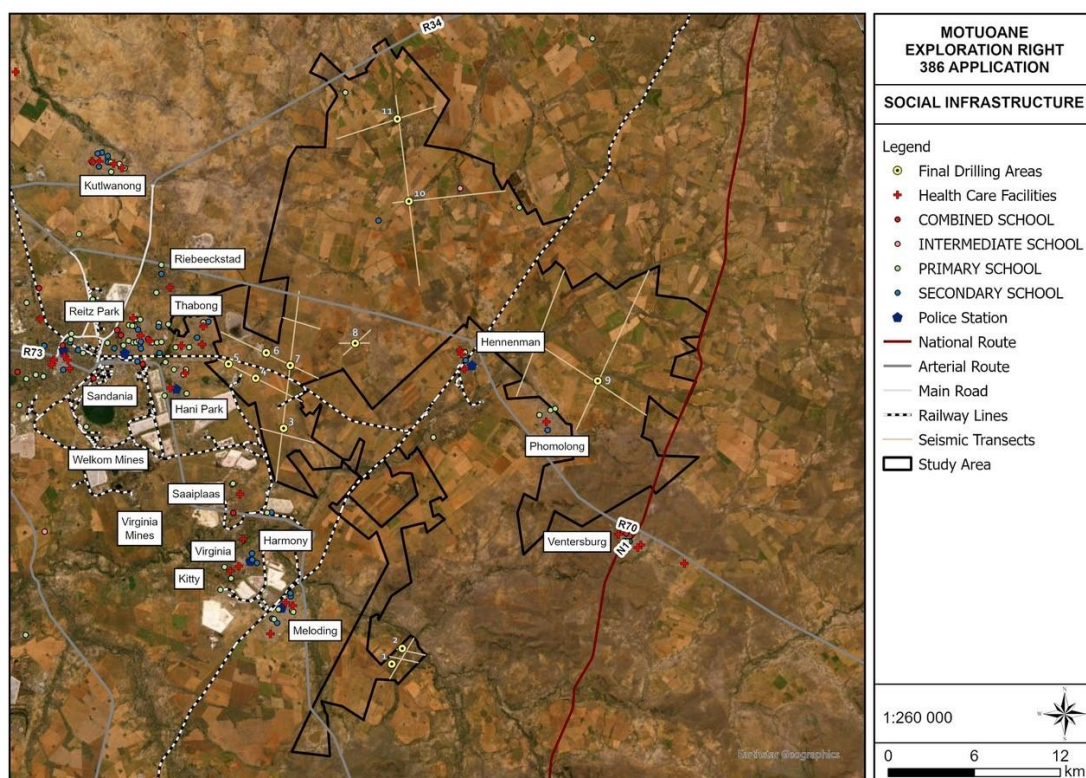
1 Introduction

Motuoane proposes to explore all saleable gases including but not limited to Methane, Carbon Dioxide, Helium, and Nitrogen in the licensed area. Published reports, general experience, experience within Motuoane and contacts with individuals familiar with the area indicate the presence of potentially commercial quantities of these gases. Direct evidence includes gas-emitting boreholes, nearby commercial gas production, gas encountered during drilling and underground mining operations. Due to the large area and complex exploration methodology, the Exploration Right (ER) will be required for an initial period of three years with the option to renew three additional periods of two years resulting in a total of nine years.

Exploration Right 386 is a consolidation of Technical Cooperation Permit (TCP) 235 and 240 & Exploration Release Area (ERA) 341 which were tenures in 2024 before ER386 application was submitted to PASA on the 8th of October 2024. TCP235 & TCP240 were granted in October 2023 for a 12 Month Term, an ER application was applied for in October 2024. ERA341 was an application previously submitted to PASA which was held up due to changing legislation and subsequently withdrawn. The areas (ERA341, TCP235 and TCP240) were then consolidated to one ER (ER386). Motuoane's application for an exploration right (ER) for hydrocarbons was accepted on the 22nd of October 2024 in terms of Section 79 of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 – MPRDA, as amended). The accepted application for an exploration right (ER386) is located over an area of approximately 58 000 hectares (ha), covering various farm portions in Welkom near the towns of Virginia, Hennenman and Odendaalsrus, Free State Province. The boundaries of ER386 are 28°13'28.95"S; 26°55'2.76"E in the South, 27°57'37.57"S; 26°48'49.15"E in the West, 27°59'13.57"S; 27°11'13.06"E in the East and 27°46'34.45"S; 26°57'44.05"E in the North, the central coordinates are approximately 27°58'23.27"S; 26°59'38.94"E.

Figure 1 shows the proposed location for the project within municipal context.

Figure 1: Locality of proposed Motuoane 386 Production Right.



The proposed activities to be undertaken as part of the exploration activities include the following:

- Identifying existing blowers within the ER, undertaking well workover and Intervention if necessary.
- Undertaking seismic survey and/or magnetotellurics survey activities (at preidentified / new areas of interest).
- Clearance of an area of 300m² or more of indigenous vegetation within specified geographical area.
- Clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation; and
- Perform gas composition analysis on gas from existing boreholes and newly drilled wells on the ER.
- The undertaking of new core exploration well drilling where necessary (at preidentified / new areas of interest).



The main activities are core exploration drilling and seismic survey activities. The proposed approach is to first determine and map the geographic extent of all boreholes currently emitting gas on and near the ER area. Then measure rates and monitor pressures where possible and perform gas composition analysis. The geophysical wireline logging of existing boreholes (where possible) will include monitoring of water levels. If no existing gas emitting boreholes are identified near a target area, new drilling activities are proposed within that area using percussion or rotary drilling method. Although up to eleven (11) target drilling areas (TA) with 500m buffer (1km corridor) within the exploration right may be undertaken over the 9-year period, the current Works Program caters for only three (3) drilling wells. It must be noted that there may be a single, multiple or no drilling activities within some of the target drilling areas. Should more than 3 drilling wells be required within the ER, the current Works Program will be required to be updated accordingly.

Majority of the drilling target areas, Target Area 3 (ED G), Target Area 4 (ED H), Target Area 5 (ED J), Target Area 6 (ED I), Target Area 7 (ED F) and Target Area 8 (VEG A) as well as seven (7) seismic transects (Transects, ED 1-5, VEG 1-2) are proposed within the western section of the exploration right on the agricultural fields between Saaiplaas, Bronville, Thabong and Whites. Two target drilling areas, Target Area 1 (RSB D) and Target Area 2 (RSB E) are located in the south of ER386, approximately 7km southeast of Meloding while Target Area 9 (HF C) and associated transects (Transects HF 1, HF2 and HF7) is located approximately 6km west the eastern boundary of ER386 (N1). There are currently two target areas proposed within the northern section namely, Target Area 10 (GP B) and Target Area 11 (GP A) and three seismic transect (Transect G1, G2 and G3) R34 located between Odendaalsrus and Kroonstad. Each exploration well will have an overall depth of approximately 650m and a maximum width of 350mm, commencing with a 6m x 323mm spud hole section, followed by 80m x 254mm conductor hole section, then an intermediate hole section of 450m x 203mm and finally an open hole section of 650m x 144mm. The actual casing sizes and configurations will vary depending on the specific geological characteristics and functional requirements. Each borehole will be steel cased and have cement barriers



to prevent leaks as well as plugged at the end of exploration to prevent groundwater seepage.

The seismic survey activities are proposed throughout the exploration right as and when necessary. Motuoane will search records at the Council for Geoscience and the Petroleum Agency for seismic data that was acquired on the Exploration Right in the past. If no data are available, Motuoane will either acquire its own seismic or telluric data on the property, following proper environmental protocols and with the written permission of the landowner. There are sixteen (16) preliminary proposed transects for seismic / telluric survey, approximately 100km long around known structures and possible drill locations. Seismic and/or telluric locations and lengths are subject to be changed as knowledge increases. Although the Vibroseis technique is the likely method to be undertaken for the seismic activities. There is also a potential alternative to the Vibroseis known as the Propelled Energy Generators (PEGs), more commonly referred to as the Accelerated Weight Drop Seismic (AWD) which Motuoane may consider over the Vibroseis.

It must be noted that there are at least 14 approved renewable energy projects from various applicants located within ER386. Motuoane and the renewable energy applicants will need to discuss the way forward and/or make necessary arrangements to coexist especially for TA 3 (EDG) and Transects EDG1 and EDG2 as the renewable energy projects overlap with the target drilling areas.

The purpose of this report is to provide baseline information regarding the socio-economic environment, to identify possible social and economic impacts and to suggest ways in which these impacts can be mitigated. This will assist decision-makers on the project in making informed decisions by providing information on the potential or actual consequences of their proposed activities. The process entailed the following:

- A baseline socio-economic description of the affected environment.
- Identification of potential social and economic change processes that may occur as a result of the project; and



- Identification of potential social and economic impacts.

One of the ways in which social risk can be managed is by conducting a social impact assessment (SIA). Such an assessment can assist with identifying possible social impacts and risks. Disregarding social impacts can alter the cost-benefit equation of development and in some cases even undermine the overall viability of a project. A proper social impact assessment can have many benefits for a proposed development (UNEP, 2002) such as:

- Reduced impacts on communities of individuals.
- Enhanced benefits to those affected.
- Avoiding delays and obstruction – helps to gain development approval (social license).
- Lowered costs.
- Better community and stakeholder relations; and
- Improved proposals.

EIMS was appointed to manage the Environmental Impact Assessment for the project, and they appointed Equispectives Research and Consulting Services to perform a social impact assessment for the proposed project. This report represents the findings and recommendations of a social screening for the proposed project as part of the scoping phase. A social impact assessment will follow during the EIA phase where a more detailed consultative process will be followed.



2 Scope of Work

The purpose of the Social Impact Assessment (SIA) is to provide a Scoping Report and EIA/EMP Report for the proposed project that will take place on site. This report represents the Scoping Level Assessment. The Scoping Report will include the following:

- A desktop description of the baseline receiving environment specific to the field of expertise (general surrounding as well as site specific environment);
- Key issues related to specialist area that need to be addressed in the EIA; and
- Terms of reference for Social Impact Assessment.



3 Methodology

Scientific social research methods were used for this assessment. To clarify the process to the reader, this section will start with a brief explanation of the processes that have been used in this study.

3.1 Information base

The information used in this report was based on the following:

- A literature review (see list provided in **Section 10**).
- Data from Statistics South Africa; and
- Professional judgement based on experience gained with similar projects.

In terms of the way forward, it is believed that a participatory approach is the best way to approach social research in the South African context. The World Bank Social Standards, IFC standards, Equator Principles, International Principles for Social Impact Assessment, as well as the guidance document for assessing and managing the social impacts of projects of IAIA will guide the study. It must be noted that international standards and principles will be adapted to ensure that it can be applied in the local social context. Apart from obtaining environmental permits as required by law, any proposed project would also require “social license to operate” from the community where it will be situated. This is seen to be a crucial element to ensure the successful implementation of the recommendations resulting from the environmental studies. The methodology proposed therefore focus on involving the affected public in the research and planning where it is realistically possible and executable. Different methodologies will be utilised to ensure the affected communities are consulted in the way that is most appropriate to the community. Information obtained through the public processes will inform the writing of the social report.



4 Legislative and Policy Framework

Although there are no explicit acts referring directly to SIA, there are many acts and policies that require specific social outcomes that can be related to this project, and these are discussed in the section below.

4.1 The Constitution of the Republic of South Africa 1996

The current Constitution of the Republic of South Africa 1996 can be regarded as one of the most progressive constitutions in the world. Human rights are enshrined in the South African Constitution, which forms the basis of all the country's legislation. Chapter 2 consists of a Bill of Rights, which explicitly spells out the rights of every South African citizen. Human rights and dignity are fundamental to SIA, and it recognises fundamental human rights and the prerogative to protect those rights as core values (Vanclay, 2003). The human rights relevant to the environmental management field that are safeguarded by the Constitution of the Republic of South Africa 1996 in the Bill of Rights, include:

- Right to a healthy environment.
- Right of access to land and to security of tenure; and
- Right to adequate housing and protection against evictions and demolitions.

The right to a protected biophysical environment, the promotion of social development and trans-generational equity is explicitly included in the Constitution of the Republic of South Africa 1996, which states:

"Everyone has the right -

1. To an environment that is not harmful to their health and wellbeing, and
2. To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:
 1. *Prevent pollution*
 2. *Promote conservation, and*



3. *Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”*

When considering an environment that is not harmful to peoples' health and wellbeing, it is important to reflect on the interconnectedness of biophysical, economic, and social aspects. The impact of development on people, and the true cost of development, as well as the consideration of “who pays the price?” versus “who reaps the benefits?” cannot be ignored in a discussion about human rights and the environment.

The right to a generally satisfactory environment is increasingly seen as a human right in Africa (Du Plessis, 2011), and South Africa's environmental legislation supports this.

4.1.1 The National Environmental Management Act 107 of 1998

The National Environmental Management Act (NEMA) 107 of 1998 states that the State must respect, protect, promote, and fulfil the **social**, economic, and environmental rights of everyone and strive to meet the needs of previously disadvantaged communities. It states further that sustainable development requires the integration of **social**, economic, and environmental factors in the planning, evaluation, and implementation of decisions to ensure that development serves present and future generations.

Chapter 1 of NEMA contains a list of principles and states clearly that environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural, and social interests (NEMA, 1998). It states further that negative impacts on the environment and on peoples' environmental rights must be anticipated and prevented, and if they cannot be prevented, they should be minimised and remedied. It elaborates further on the equity of impacts, and the fact that vulnerable communities should be protected from negative environmental impacts. It refers to the principle that everyone should have equal access to environmental resources, benefits, and services to meet their basic



human needs (NEMA, 1998). Therefore, there is a clear mandate for environmental and restorative justice in the act, something that must be considered in this project.

Another important aspect of NEMA is the principle of public participation. It states that people should be empowered to participate in the environmental governance processes, and that their capacity to do so should be developed if it does not exist. All decisions regarding the environment should take the needs, interest, and values of the public into account, including traditional and ordinary knowledge (NEMA, 1998). There are also specific environmental management acts that fall under NEMA, such as the National Environmental Management, Air Quality Act 39 of 2004 (NEM: AQA), and the National Environmental Management, Waste Act 59 of 2008 (NEM: WA). These acts require similar public participation processes to NEMA and the principles of NEMA also apply to them (Department of Environmental Affairs & Development Planning [DEA&DP], Provincial Government of the Western Cape, 2010).

Chapter 6 of NEMA elaborates on the public participation requirements. This is supplemented by the EIA regulations published in GN 982 of 4 December 2014, which contained requirements for public participation (GN 982 in GG 38282 of 4 December 2014). It provides requirements for the public participation, the minimum legal requirements for public participation processes, the generic steps of a public participation process, requirements for planning a public participation process and a description of the roles and responsibilities of the various role players. A compulsory Public Participation Guideline that was published in 2012 (GN 807 of 10 October 2012) in terms of section J of NEMA (NEMA, 1998) complements these requirements. According to the guidelines, public participation can be seen as one of the most important aspects of the environmental authorisation process. Public participation is the only requirement of the environmental impact assessment process for which exemption cannot be given, unless no rights are affected by an application. This stems from the requirement in NEMA that people have a right to be informed about potential decisions that may affect them and that they must be given an opportunity to influence those decisions.



The principles of the National Environmental Management Act 107 of 1998 declare further that community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, sharing of environmental knowledge and experience and any other appropriate means. It states that the social, environmental, and economic impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions taken must be appropriate given the assessment and evaluation. NEMA 107 of 1998 recognises that the environment is held in public trust for the people, and therefore the beneficial use of environmental resources must serve the peoples' interest and protect the environment as the peoples' common heritage.

NEMA takes a holistic view of the environment, and promotes the consideration of social, economic, and biophysical factors to obtain sustainable development and achieve effective management of the biophysical environment.

4.1.2 The National Water Act 36 of 1998

Chapter 1 of the National Water Act (NWA) 36 of 1998 states that sustainability and equity are identified as central guiding principles in the protection, use, development, conservation, management, and control of water resources. It affirms that the guiding principles recognise the basic human needs of present and future generations and the need to promote social and economic development using water. Chapter 2 of the NWA states amongst others that the purpose of the act is to ensure that everyone has equitable access to water, and that the results of past racial and gender discrimination are redressed. It aims to promote the efficient, sustainable, and beneficial use of water in the public interest, and to facilitate social and economic development. The NWA recognises that the nations' water resources are held in public trust for the people, and therefore the sustainable, equitable and beneficial use of water resources must serve the peoples' interest.

4.1.3 The Mineral and Petroleum Resources Development Act 28 of 2002

The Mineral and Petroleum Resources Development Act (MPRDA) 28 of 2002 is the only environmental act that explicitly requires a social development output, in



addition to a public participation process, in the form of a Social and Labour Plan (SLP). In the preamble to the Act, it recognises the need to promote local and rural development and the social upliftment of communities affected by resource development. In Section 2 it states that some of the objectives of the act are:

- To substantially and meaningfully expand opportunities for historically disadvantaged persons, including women, to enter the mineral and petroleum industries and to benefit from the exploitation of the nations' mineral and petroleum resources;
- To promote economic growth and mineral and petroleum resources development in the Republic;
- To promote employment and advance the social and economic welfare of all South Africans, and
- To ensure that holders of mining and production rights contribute towards the socio-economic development of the areas in which they are operating.

The MPRDA acknowledges that mineral and petroleum resources are the common heritage of all the people of South Africa and that the State is the custodian thereof for the benefit of all. It states that the Minister of Mineral Resources must ensure the sustainable development of South Africa's mineral and petroleum resources within a framework of national environmental policy, norms and standards while promoting economic and social development (MPRDA, 2002).

In Section 37 of the Mineral and Petroleum Resources Development Act 28 of 2002 it endorses the principles set out in Chapter 1 of the National Environmental Management Act 107 of 1998. In Section 39 of the MPRDA the act explicitly requires a social impact assessment as well as an environmental impact assessment when it states that applicants must:

“...investigate, assess, and evaluate the impact of his or her proposed prospecting or mining operations on:



- (i) The environment;
- (ii) The **socio-economic conditions of any person** who might be directly affected by the prospecting or mining operation...”

Section 3, Chapter 2, Part I, of the regulations (Government Notice 527, 23 April 2004) published under the MPRDA refers to the public participation process, which must be followed according to the Act. It includes advertising and an invitation to comment on the process.

Sections 40 to 46, Chapter 2, Part II, of the regulations published under the MPRDA deal with the Social and Labour Plan (SLP) requirements (Government Notice 527, 23 April 2004). The Department of Mineral Resources provided guidelines for the development of the SLP (Department of Mineral Resources, 2010). The guidelines specify the objectives of the SLP as:

- Promote economic growth and mineral and petroleum resources development in the Republic;
- Promoting employment and advancing the social and economic welfare of all South Africans;
- Ensuring that holders of mining or production rights contribute towards the socio-economic development of the areas in which they are operating as well as the areas from which the majority of the workforce is sourced, and
- To utilise and expand the existing skills base for the empowerment of Historically Disadvantaged South Africans and to serve the community (Department of Mineral Resources, 2010).

The crux of this section is that the SLP requires applicants for mining and production rights to develop and implement comprehensive Human Resources Development Programmes including Employment Equity Plans, Local Economic Development Programmes, and processes to save jobs and manage downscaling and/or closure (MPRDA 28 of 2002). According to the regulations, the above programmes are aimed at promoting employment and advancement of the social and economic welfare of all South Africans whilst ensuring economic growth and socio-economic development. The management of downscaling and/or closure is aimed at minimising the impact of commodity cyclical volatility, economic turbulence and physical depletion of the



mineral or production resources on individuals, regions or local economies. All mines in South Africa are required to compile an SLP, and they must report compliance on a yearly basis (MPRDA, 2002). Compiling an SLP must be done in a participatory manner, and local economic development initiatives must be aligned with the municipal integrated development planning processes. An SLP is not a social impact management plan per se, although it does aim to manage some negative social impacts. The guideline is very clear about the fact that measures put in place for the mitigation of impacts cannot be seen as mine community development projects (Department of Mineral Resources, 2010).

4.1.4 The National Heritage Resources Act 25 of 1999

Although the National Heritage Resources Act (NHRA) 25 of 1999 is not an environmental act per se, it is relevant in the field of environmental management. The NHRA affirms that every generation has a moral responsibility to act as trustee of the national heritage for later generations and that the State is obliged to manage heritage resources in the interest of all South Africans. The general principles for heritage management in Chapter 5 of the Act state that in order to ensure that heritage resources are effectively managed, the skills and capacities of persons and communities involved in heritage resources management must be developed. The Act further elaborates on the fact that heritage resources form an important part of the history and beliefs of communities and must be managed in a way that acknowledges the right of affected communities to be consulted and to participate in their management.

The general principles (Chapter 5) state that the identification, assessment, and management of the heritage resources of South Africa must:

- Take account of all relevant cultural values and indigenous knowledge systems;
- Take account of material or cultural heritage value and involve the least possible alteration or loss of it;
- Promote the use and enjoyment of and access to heritage resources, in a way consistent with their cultural significance and conservation needs;
- Contribute to social and economic development, and



- Safeguard the options of present and future generations.

The National Heritage Resources Act 25 of 1999 therefore protects the cultural rights and heritage of the people of South Africa. It does not require explicit public participation or give any guidelines on how the public should participate. It does refer, like the National Environmental Management Act 107 of 1998 and the National Water Act 36 of 1998, to social and economic development. Public participation processes may be requested by the South African Heritage Resources Agency if it deems it necessary for a specific project.

4.1.5 Promotion of Administrative Justice Act 3 of 2000

The Bill of Rights in the Constitution of the Republic of South Africa 1996 states that everyone has the right to administrative action that is legally recognised, reasonable and procedurally just. The Promotion of Administrative Justice Act (PAJA) 3 of 2000 gives effect to this right. The PAJA applies to all decisions of all State organisations exercising public power or performing a public function in terms of any legislation that negatively affects the rights of any person. The Act prescribes what procedures an organ of State must follow when it takes decisions. If an organ of State implements a decision that impacts on an individual or community without giving them an opportunity to comment, the final decision will be illegal and may be set aside. The Promotion of Administrative Justice Act 3 of 2000 also forces State organisations to explain and give reasons for the manner in which they have arrived at their decisions and, if social issues were involved, and how these issues were considered in the decision-making process.

The Promotion of Administrative Justice Act 3 of 2000 therefore protects the rights of communities and individuals to participate in decision-making processes, especially if these processes affect their daily lives.

4.1.6 Gas related legislation

The introduction of natural gas into South Africa's mainstream energy supply is an important step in the fulfilment of one of the major objectives of the White Paper on Energy Policy.



The Department of Energy has formulated:

- **The Gas Act 2001, Act 48 of 2001** and the Government / Sasol regulatory agreement referred to in section 36 of the Act, which aims to:
 - Promote the orderly development of the piped gas industry;
 - Establish a national regulatory framework; and
 - Establish a National Gas Regulator as the custodian and enforcer of the national regulatory framework.
- **Gas Amendment Bill:** Introduced in 2024, this bill aims to update the Gas Act of 2001, enhancing the regulatory framework, promoting skills development, and facilitating cooperation between the private and public sectors
- **The Gas Regulator Levies Act 2002, Act 75 of 2002**, which provides for the imposition of levies for the functioning of the national gas regulator and for matters connected therewith.
- **Piped Gas Regulations.** After the establishment of the National Energy Regulator, the Department of Energy has promulgated the Piped Gas Regulations, 2007, to promote the orderly development of the piped gas industry
- **Gas Act Rules, 2021:** These rules provide detailed guidelines for the implementation of the Gas Act, including methodologies for approving maximum gas prices and other operational procedures

4.2 National and international standards

National and international industry standards aimed at sustainable development and social justice specifically have become abundant in the last decade. Many industries use these standards as indicators for best practice. The discussion below highlights only a few of these standards.



4.2.1 ISO 26000:2010/SANS 26000:2010

Performance standards have long been a voluntary tool used by industry to achieve certain outcomes. The first standard on social responsibility, ISO 26000 was published on 1 November 2010 (ISO, 2010). It was developed using a multi-stakeholder approach involving experts from more than 90 countries and 40 international or broadly based regional organisations involved in different aspects of social responsibility (ISO, 2010).

The South African Bureau of Standards (SABS), a statutory body that is mandated to develop, promote, and maintain South African National Standards (SABS, [sa]) adopted the ISO 26000 Standard as a South African National Standard (SANS) 26000:2010.

Social responsibility is defined in the standard as the responsibility of an organisation for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that contributes to sustainable development, including health and welfare of society; takes into account the expectations of the stakeholders; complies with applicable law and is consistent with international behaviour norms, and is integrated throughout the organisation and practiced in its relationships (ISO, 2010).

The document identifies seven principles for social responsibility and seven core subjects that should be addressed by organisations. The seven principles for social responsibility are accountability, transparency, ethical behaviour, respect for stakeholder interests, respect for the rule of law, respect for international norms of behaviour and respect for human rights (ISO, 2010). The core subjects that should be addressed include organisational governance, human rights, labour practices, environment, fair operating practices, consumer issues and community involvement and development (ISO, 2010). Economic aspects, health and safety and the value chain are dealt with throughout the seven core subjects, and gender issues are considered.

ISO 26000 is a good introduction to what social responsibility is and what measures should be taken to move towards being a more socially responsible company. It deals with equity issues and can encourage social development initiatives by companies



through activities such as social investment projects, employment creation, skills development, and income creation. Any company operating in area where people are affected by their activities has a social responsibility towards the affected community, and as such it would be in the interest of the project to address the core subjects as suggested by ISO 26000:2010.

4.2.2 International Social Performance Standards/Initiatives

There is a profusion of global initiatives aiming at assisting companies to make their operations more sustainable. Human rights, environmental protection and social justice are gaining support from industry. The social agenda forms an important part of this trend. Only a few relevant initiatives will be mentioned in this section.

The Global Reporting Initiative (GRI) is a leading organisation in the sustainability field that promotes sustainability reporting as a way for companies to become more sustainable and contribute to sustainable development. A company publishes a sustainability report to report the economic, social, and environmental impacts of its everyday activities, present its values and governance model and explain the link between its strategy and its commitment to sustainable development (GRI, [sa]). The GRI have strategic partnerships with the United Nations Environment Programme, the United Nations Global Compact, the Organisation for Economic Co-operation and Development and the International Organisation for Standardisation, amongst others (GRI, [sa]). The social category relates to the impact of the company on the social systems in which it operates. The social category consists of four subcategories namely labour practices and decent work; human rights; society; and product responsibility. Each of the categories is unpacked by using a number of aspects that should be considered (GRI, [sa]). GRI Focal Points are national offices that drive the initiatives in particular countries and regions.

Many of the multi-lateral funding agencies such as the World Bank have social standards that they must uphold. The most frequently used in the EIA industry is the International Finance Corporation's (IFC) principles (IFC, 2012). The IFC is a member of the World Bank group, and as a part of their sustainability framework they created



performance standards on environmental and social sustainability (IFC, 2012). The standards relevant to the social environment are the following:

1. Environmental and Social Standard 1: Assessment and Management of Environmental and Social Risks and Impacts
2. Environmental and Social Standard 2: Labour and Working Conditions
3. Environmental and Social Standard 4: Community Health and Safety
4. Environmental and Social Standard 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
5. Environmental and Social Standard 8: Cultural Heritage
6. Environmental and Social Standard 10: Stakeholder Engagement and Information Disclosure (World Bank, 2016)

Issues such as gender, climate change, water and human rights are addressed across the standards. A guidance note accompanies each standard (IFC, 2012:4). Environmental and social risks and impacts must be managed by using an Environmental and Social Management System. The standard applies to all the activities funded by the IFC for the duration of the loan period. A number of private banks adopted most of the IFC standards in an initiative known as the Equator Principles (Esteves, Franks & Vanclay, 2012).

4.2.3 International Principles for SIA

The practice of SIA is guided by a set of *International Principles* that defines the core values, fundamental principles for development and principles specific to SIA practice (Vanclay, 2003). When the *International Principles* are considered, it is clear that SIA aspires to more than just assessing the impact of development on people and includes sustainable outcomes. The following specific principles refer to these sustainable outcomes (Vanclay, 2003):



1. Development projects should be broadly acceptable to the members of those communities likely to benefit from, or be affected by, the planned intervention.
2. The primary focus of all developments should be positive outcomes, such as capacity building, empowerment, and the realisation of human and social capital.
3. The term “environment” should be defined broadly to include social and human dimensions, and in such inclusion, care must be taken to ensure that adequate attention is given to the realm of the social.
4. Equity considerations should be a fundamental element of impact assessment and of development planning.
5. There should be a focus on socially sustainable development, with the SIA contributing to the determination of best development alternative(s) – SIA (and EIA) has more to offer than just being an arbiter between economic benefit and social cost.
6. In all planned interventions and their assessments, avenues should be developed to build the social and human capital of local communities and to strengthen democratic processes.
7. Local knowledge, experience and acknowledgement of different cultural values should be incorporated in any assessment.
8. Development processes that infringe the human rights of any section of society should not be accepted.

In addition to the *International Principles*, the international SIA community produced a document titled: *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* (Vanclay, Esteves, Aucamp & Franks, 2015) in April 2015. The purpose of this document is to provide advice to various stakeholders (including proponents) about good practice SIA and social impact management (Vanclay et al., 2015). This document aspires to provide a much-needed benchmark for SIA practice across the globe.



4.3 Additional governance tools

Legislation is not the only tool that authorities can use to achieve sustainable development and social development outcomes. There are several tools, policies and strategic planning instruments that can contribute to this.

4.3.1 Integrated Development Plans

For the purpose of this project, Integrated Development Plan (IDP) documents of two municipalities need to be considered: the Lejweleputswa District Municipality, the Matjhabeng Local Municipality, the Moqhaka Local Municipality and Fezile Dabi District Municipality

The Lejweleputswa District Municipality IDP (2022-2027) indicates that key sectors for **local economic development** include **agro-processing, manufacturing, renewable energy (particularly solar energy), tourism, real estate, and consulting engineering services**. In addition to economic growth, **basic service delivery and infrastructure development** remain priorities, focusing on **water, sanitation, waste management, electricity, roads, and sports and recreation facilities** to enhance community well-being and sustainability.

The key priorities for the Matjhabeng Local Municipality ((DP 2024/25) are:

- **Water:** Addressing water leakages, replacing meters, and ensuring water connections.
- **Sanitation:** Fixing collapsed sewer networks and eradicating bucket systems.
- **Electricity:** Installing and maintaining high mast lights and streetlights.
- **Road and Stormwater:** Paving, gravelling, and resealing roads, fixing potholes, and constructing stormwater drainage systems.
- **Waste Management:** Removing illegal dumping, ensuring consistent refuse collection, and providing dustbins.
- **Human Settlement:** Allocating residential and business sites, providing RDP houses, and issuing title deeds.



- **Local Economic Development (LED):** Supporting SMMEs with training and funding, and creating business opportunities.
- **Education:** Providing bursaries, learnerships, and internships, and building new educational facilities.
- **Health:** Expanding and maintaining clinics, and ensuring access to healthcare services.
- **Community Facilities:** Building and maintaining community halls, sports facilities, and parks.
- **Safety and Security:** Ensuring visible policing, enforcing by-laws, and building new police stations.
- **Agriculture:** Protecting river systems from pollution, promoting sustainable agricultural practices, and developing agro-processing projects.
- **Built Environment:** Prioritizing road linkages, promoting densification, and providing diverse housing options.
- **Revenue and Financial Management:** Enhancing revenue collection, managing expenditures, and ensuring financial sustainability.
- **Performance Management:** Implementing a robust performance management system to monitor and improve service delivery.
- **Integration and Coordination:** Ensuring integrated development planning and aligning projects with national and provincial strategies.
- **Infrastructure Development:** Developing and maintaining essential infrastructure such as water, sanitation, energy, and transport systems.
- **Replacement of Ageing Infrastructure:** Replacing old and deteriorating infrastructure.
- **Housing Accreditation:** Achieving housing accreditation.
- **Internal Capacity Building:** Building internal capacity.
- **Climate Change Strategy:** Developing climate change strategy, adaptation, and mitigation.
- **Private-Public Partnerships:** Improving private-public partnerships for growth and development.
- **Economic Corridors:** Developing economic corridors linking six towns.



The Fezile Dabi District Municipality's (IDP 2022 – 2027) priorities are organized into five Key Performance Areas:

- **Municipal Transformation and Institutional Development** focuses on employee retention, labour relations, administrative capabilities, employee wellness, regulatory compliance, and sector planning.
- **Basic Service Delivery and Infrastructure Investment** addresses roads, housing, emergency services, health initiatives (including HIV/AIDS prevention), poverty reduction, and essential utilities (water, sanitation, electricity, roads).
- **Local Economic Development** supports business development, arts, tourism, vulnerable groups, agriculture, and job creation.
- **Financial Viability and Financial Management** ensures sound financial practices, regulatory compliance, accurate reporting, asset management, revenue optimization, and effective procurement.
- **Good Governance and Community Participation** promotes governance standards, community engagement, stakeholder capacity building, intergovernmental cooperation, and accountability.

The Moqhaka Local Municipality's (IDP 2022 – 2027) priorities cover:

- **Financial Management:** Asset renewal and maintenance, balanced budgeting, proper budget funding, capital program alignment, operational efficiencies, and disciplined project planning that requires business plans for funding.
- **Core Infrastructure:** Service delivery focusing on basic utilities (water, sanitation, electricity, roads), housing development, transport infrastructure, and waste management.
- **Community Development:** Local economic growth, job creation, SMME support, social services, recreational facilities, and sports development.
- **Governance and Safety:** Public participation, transparent governance, institutional capacity building, safety and security, emergency services, law enforcement, and public nuisance control.
- **Environmental Stewardship:** Climate change mitigation, environmental sustainability, and maintenance of parks and cemeteries.



This comprehensive approach balances financial discipline with infrastructure development, economic growth, community services, and environmental responsibility.

4.3.2 Provincial Growth and Development Strategies

The Free State Provincial Growth and Development Strategy (FGDS) is based on six pillars, each with its own set of drivers (FSDF, 2012). The drivers and pillars are:

1. Inclusive economic growth and sustainable job growth creation
 - a. Diversify and expand agricultural development and food security.
 - b. Minimise the impact of the declining mining sector and ensure that existing mining potential is harnessed.
 - c. Expand and diversify manufacturing opportunities.
 - d. Capitalise on transport and distribution opportunities.
 - e. Harness and increase tourism potential and opportunities.
2. Education, innovation and skills development
 - a. Ensure an appropriate skills base for growth and development.
3. Improved quality of life
 - a. Curb crime and streamline criminal justice performance.
 - b. Expand and maintain basic and road infrastructure.
 - c. Facilitate sustainable human settlements.
 - d. Provide and improve adequate health care for citizens.
 - e. Ensure social development and social security services for all citizens.



- f. Integrate environmental limitations and change into growth and development planning.
- 4. Sustainable rural development
 - a. Mainstream rural development into growth and development planning.
- 5. Build social cohesion
 - a. Maximise arts, culture, sports and recreation opportunities and prospects for all communities.
- 6. Good governance
 - a. Foster good governance to create a conducive climate for growth and development.

The Free State Provincial Spatial Development Framework (FSDF) supplements the FGDS as guidance document for the province to use resources in a way that will ensure sustainable outcomes based on provincial development needs and priorities (FSDF, 2012). The FSDF outlines Vision 2030, a collective response to the need for the province to describe and map its future destiny through long-term development planning, and to forge a common and shared development agenda across a wide spectrum of service delivery mechanisms. The Free State Vision 2030 envisages that, *by 2030, the Free State shall have a resilient, thriving and competitive economy that is inclusive, with immense prospects for human development anchored on the principles of unity, dignity, diversity, equality and prosperity for all* (FSDF, 2012).

Encouraged by this vision, the Free State of 2030 will be characterised by an economy that encourages the development of new growth sectors with emphasis on the knowledge-based industries and the green economy (FSGDS).

The Free State Vision 2030 furthermore envisages that, *by 2030, ownership and control patterns of the economy will be transformed, spatial under-development will be addressed, basic services such as healthcare, education, electricity, water and*



sanitation will be equitably accessed by the people of the province. In the quest for inclusive economic growth and development, the environment will be protected for future generations. Lasting responses to climate changes will be part of the landscape of the development of the province. Steeped within the democratic principles, the Provincial Government will be accountable, transparent, effective, efficient, responsive to people's needs, and corruption will be eliminated (FSDF, 2012).

4.3.3 National Development Plan

On 11 November 2011 the National Planning Commission released the National Development Plan: Vision for 2030 (NPC, 2012) for South Africa and it was adopted as government policy in August 2012. The National Development Plan (NDP) was undertaken to envision what South Africa should look like in 2030 and what action steps should be taken to achieve this (RSA, 2013). The aim of the NDP is to eliminate poverty and reduce inequality by 2030. The report identifies nine central challenges to development in South Africa:

1. Too few people work.
2. The standard of education for most black learners is of poor quality.
3. Infrastructure is poorly located, under-maintained and insufficient to foster higher growth.
4. Spatial patterns exclude the poor from the fruits of development.
5. The economy is overly and unsustainably resource intensive.
6. A widespread disease burden is compounded by a failing public health system.
7. Public services are uneven and often of poor quality.
8. Corruption is widespread.
9. South Africa remains a divided society (NPC, 2012).



The plan focuses on creating an enabling environment for development and wants to shift from a paradigm of entitlement to a paradigm of development that promotes the development of capabilities, the creation of opportunities and the involvement of all citizens (NPC, 2012). The National Development Plan (NPC, 2012) wants to achieve the following:

1. An economy that will create more jobs.
2. Improving infrastructure.
3. Transition to a low-carbon economy.
4. An inclusive and integrated rural economy.
5. Reversing the spatial effects of apartheid.
6. Improving the quality of education, training and innovation.
7. Quality healthcare for all.
8. Social protection.
9. Building safer communities.
10. Reforming the public service.
11. Fighting corruption.
12. Transforming society and uniting the country.

Each of the points above is a chapter in the plan and contains a range of targets and proposals. Some are general statements of policy intent, while others are specific policy proposals, actions or processes that should take place (NPC, 2012). Through its contribution to the economy, the project will assist with achieving the goal of creating an economy that will create more jobs.



4.3.4 Sustainable Development Goals

All 189 Members States of the United Nations, including South Africa, adopted the United Nations Millennium Declaration in September 2000 (UN, 2000). The commitments made by the Millennium Declaration are known as the Millennium Development Goals (MDGs), and 2015 was targeted as the year to achieve these goals. The United Nations Open Working Group of the General Assembly identified seventeen sustainable development goals, built on the foundation of the MDGs as the next global development target (UN, 2014). The sustainable development goals include aspects such as ending poverty, addressing food security, promoting health, wellbeing and education, gender equality, water and sanitation, economic growth and employment creation, sustainable infrastructure, reducing inequality, creating sustainable cities and human settlements, and addressing challenges in the physical environment such as climate change and environmental resources (UN, 2014). These aspects are included in the NPD, and it can therefore be assumed that South Africa's development path is aligned with the international development agenda. The project can assist with contributing to achieving goals such as economic growth and employment creation and promoting health, wellbeing, and education through their SLP.



5 Receiving environment

According to the National Environmental Management Act (NEMA, 1998) environment refers to the surroundings in which humans exist. When viewing the environment from a socio-economic perspective the question can be asked what exactly the social environment is. Different definitions for social environment exist, but a clear and comprehensive definition that is widely accepted remains elusive. Barnett & Casper (2001) offers the following definition of human social environment:

“Human social environments encompass the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact. Components of the social environment include built infrastructure; industrial and occupational structure; labour markets; social and economic processes; wealth; social, human, and health services; power relations; government; race relations; social inequality; cultural practices; the arts; religious institutions and practices; and beliefs about place and community. The social environment subsumes many aspects of the physical environment, given that contemporary landscapes, water resources, and other natural resources have been at least partially configured by human social processes. Embedded within contemporary social environments are historical social and power relations that have become institutionalized over time. Social environments can be experienced at multiple scales, often simultaneously, including households, kin networks, neighbourhoods, towns and cities, and regions. Social environments are dynamic and change over time as the result of both internal and external forces. There are relationships of dependency among the social environments of different local areas, because these areas are connected through larger regional, national, and international social and economic processes and power relations.”

Environment-behaviour relationships are interrelationships (Bell, Fisher, Baum & Greene, 1996). The environment influences and constrains the behaviour of people, but behaviour also leads to changes in the environment. The impacts of a project on

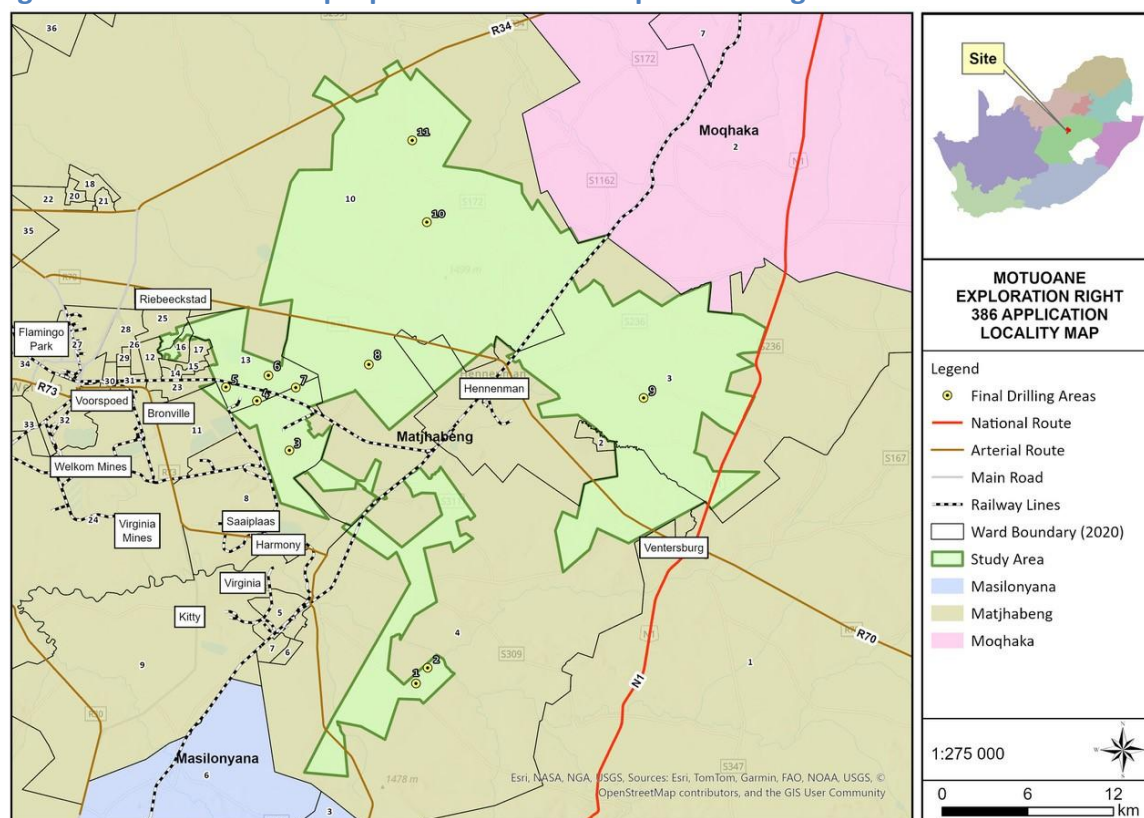


people can only be truly understood if their environmental context is understood. The baseline description of the social environment will include a description of the area within a provincial, district and local context that will focus on the identity and history of the area and a description of the population of the area based on a number of demographic, social and economic variables.

5.1 Description of the area

The proposed project is located in Wards 1, 2, 3, 4, 8, 10, 11, 12, 13, 15, 16, 17, 23 and 25 of the Matjhabeng Local Municipality that forms part of the Lejweleputswa District Municipality and Ward 2 in the Moqhaka Local Municipality which falls in Fezile Dabi District the in the Free State Province. The baseline description of the environment will include these areas. [Figure 4](#) shows the location of the proposed project as well as social and physical infrastructure in the area.

Figure 2: Location of the proposed Motuoane Exploration Right



5.1.1 Free State Province

The Free State province lies in the centre of South Africa between the Vaal River in the north and the Orange River in the south. The province borders on the Northern Cape,



Eastern Cape, North-West, Mpumalanga, KwaZulu-Natal, and the Gauteng province. It also shares a border with Lesotho. With a total area of 129 825 km², the Free State is the country's third-largest province but has the second-smallest population (www.municipalities.co.za).

The Free State is a rural province, and its economic activities are dominated by mining, agriculture, and manufacturing. The province is the fifth-largest producer of gold in the world and is also home to Sasol, a large synthetic fuels company.

About 90% of the Free State is used for crop production (www.municipalities.co.za). About 34% of the total maize production of South Africa, 37% of wheat, 53% of sorghum, 33% of potatoes, 18% of red meat, 30% of groundnuts and 15% of wool is produced in the Free State.

Bloemfontein is the capital of the Free State and South Africa's judicial capital. The province is divided into one metropolitan municipality (Mangaung Metropolitan Municipality) and four district municipalities, namely Fezile Dabi, Lejweleputswa, Xhariep and Thabo Mofutsanyane. Other important towns in the Free State include Welkom, Kroonstad, Sasolburg, and Bethlehem.

5.1.2 Lejweleputswa District Municipality

The Lejweleputswa District Municipality (LDM) is situated in the north western part of the Free State and borders the North West Province to the north; the Fezile Dabi and Thabo Mofutsanyane District Municipalities to the north-east and east respectively; the Xhariep District Municipality and Mangaung Metropolitan Municipality to the south; and the Northern Cape Province to the west. The LDM is accessible from Johannesburg, Cape Town, Klerksdorp, and Kimberley through one of South Africa's main national roads, the N1. The district covers an area of 32 286 km² and make up almost a third of the Free State province. It consists of the Masilonyana, Matjhabeng, Nala, Tokologo and Tswelopele Local Municipalities (www.lejweleputswa.co.za).

The economy of the district relies heavily on the gold mining sector which is dominant in the Matjhabeng and Masilonyana Local Municipalities (Lejweleputswa DM IDP 2021/22). The mining sector is on a downward trend and many businesses that have



traditionally depended on the mining sector have either closed down are in the process of closing down. The other municipalities are dominated by agriculture.

5.1.3 Matjhabeng Local Municipality

The main towns in the Matjhabeng Local Municipality are Welkom, Odendaalsrus, Virginia, Hennenman, Allanridge and Ventersburg (www.matjhabeng.fs.gov.za). The economy of the municipality is centred on mining activities in and around Welkom, Allanridge, Odendaalsrus and Virginia. Manufacturing aimed at the mining sector exists to a limited extent in the above towns, with other activities being limited. Other main economic sectors include manufacturing, tourism, agriculture, gold jewellery, transportation (logistics), and retail (Matjhabeng LM IDP 2022/2023).

5.1.4 Fezile Dabi District Municipality

The Fezile Dabi District Municipality covers an area of approximately 20,668 km². The main towns in the District are Kroonstad, Parys, Sasolburg, Heilbron, Frankfort, Villiers, Deneysville, Oranjeville, Vredefort, Steynsrus, Viljoenskroon, Edenville, Koppies, Tweeling, and Cornelia. These towns are distributed across the four local municipalities within the district, namely the Metsimaholo, Mafube, Moqhaka, and Ngwathe Local Municipalities. The economy of Fezile Dabi District Municipality is diverse, with agriculture (crop farming and livestock) and manufacturing (particularly chemical and petrochemical industries in Sasolburg) serving as primary sectors. Mining contributes to the economy but is less dominant than agriculture and manufacturing. Tourism utilizes natural and cultural attractions to support local businesses and employment. The service sector, including community and social services, plays a crucial role. Trade represents the largest share at 22% of economic activities, while households contribute 13%. Other significant sectors include finance (7%), construction (6%), and transport (5%). This economic profile shows a balanced mix of primary industries, manufacturing, and service sectors with trade being the most significant individual component (Fezile Dabi DM IDP 2022-2027).

5.1.5 Moqhaka Local Municipality

The main towns in the Moqhaka Local Municipality are Kroonstad, Viljoenskroon, Steynsrus, Vierfontein, Renovaal. The economy of the Moqhaka Local Municipality is



primarily based on agriculture, including crop farming and livestock farming. Other significant sectors include mining, industrial activities, manufacturing, trade, services, and tourism. Public services, such as the Department of Correctional Services and military bases, also contribute to the local economy. There are ongoing local economic development initiatives aimed at promoting economic growth, job creation, and poverty reduction (Moqhaka LM IDP 2022-2027).

5.2 Description of the population

The baseline description of the population will take place on three levels, namely provincial, district and local. Impacts can only truly be comprehended by understanding the differences and similarities between the different levels. The baseline description will focus on the Matjhabeng Local Municipality in the Lejweleputswa District Municipality in the Free State Province (referred to in the text as the study area), as these are the areas that will be most affected by the proposed project. Where possible, the data will be reviewed on a ward level. The data used for the socio-economic description was sourced from Census 2022, Community Survey 2016, and Census 2011. Both Census 2022 and Census 2011 were de facto censuses where individuals were counted based on where they were on the census reference night. For Census 2022 the reference night was the night of 2 February 2022 and for Census 2011 it was the night of 9 October 2011. The results should be viewed as indicative of the population characteristics in the area and should not be interpreted as absolute.

StatsSA released limited data for Census 2022 on 10 October 2023 and will release more detailed data in future following a phased approach. ***The data that was released are only available up to local municipal level, and not on ward level.*** As such the data from Census 2022 will be supplemented by data from Census 2011 and Community Survey 2016. Census 2011 that contains the latest ward level data has been categorised according to the 2016 ward delineations, but not according to the current ward delineations. For this reason, the baseline data according to ward level will be analysed according to the 2016 delineations (Figure 5), which in this instance are the same as the latest ward delineations.



Perhaps the most striking feature of Census 2022 is the very high undercount of 31% of people and 30% of households. While census undercounts are the norm rather than the exception (about a 5% undercount is acceptable), the undercount of this census may set a new international record (www.wits.ac.za). At aggregate level Census 2022 is robust, but at sub-national, and especially sub-provincial, levels it might be less so.

In terms of Census 2011, the following points must be kept in mind (www.statssa.co.za):

- Comparisons of the results of labour market indicators in the post-apartheid population censuses over time have been a cause for concern. Improvements to key questions over the years mean that the labour market outcomes based on the post-apartheid censuses must be analysed with caution. The differences in the results over the years may be partly attributable to improvements in the questionnaire since 1996 rather than to actual developments in the labour market. The numbers published for the 1996, 2001, and 2011 censuses are therefore not comparable over time and are different from those published by Statistics South Africa in the surveys designed specifically for capturing official labour market results.
- For purposes of comparison over the period 1996–2011, certain categories of answers to questions in the censuses of 1996, 2001 and 2011, have either been merged or separated.
- The tenure status question for 1996 has been dropped since the question asked was totally unrelated to that asked thereafter. Comparisons for 2001 and 2011 do however remain.
- All household variables are controlled for housing units only and hence exclude all collective living arrangements as well as transient populations.
- When making comparisons of any indicator it must be considered that the time period between the first two censuses is five years and that between the second and third census is ten years. Although Census captures information at



one given point in time, the period available for an indicator to change is different.

5.2.1 Population and household sizes

According to the Census 2022, the population of South Africa is approximately 62 million and has shown an increase of about 19.8% since 2011. The household density for the country is estimated on approximately 3.48 people per household, indicating an average household size of 3-4 people for most households, which is down from the 2011 average household size of 3.58 people per household. Smaller household sizes are in general associated with higher levels of urbanisation.

The greatest increase in population since 2011 has been on local level ([Table 1](#)), but still lower than the national average. Population density refers to the number of people per square kilometre and the population density on a national level has increased from 42.4 people per km² in 2011 to 50.8 people per km² in 2022. In the study area the population density has increased since 2011 with the highest density in the Matjabeng LM.

Table 1: Population density and growth estimates (sources: Census 2011, Census 2022)

Area	Size in km ²	Population 2011	Population 2022	Population density 2011	Population density 2022	Growth in population (%)
Free State Province	129,825	2,745,590	2,964,412	21.15	22.83	7.97
Lejweleputswa DM	31,930	624,746	679,746	19.35	21.05	8.80
Matjhabeng LM	5,155	407,020	439,034	71.53	77.16	7.87
Fezile Dabi DM	20,674	488,036	509,912	23.61	24.66	4.48
Moqhaka LM	7,925	160,532	155,410	20.26	19.61	-3.19

The number of households in the study area has increased on all levels ([Table 2](#)), except in the Moqhaka LM where it decreased. The proportionate increase in households were smaller than the increase in population on all levels and below the growth in households of 12.3% on a national level. The average household size has shown an increase on all levels, which means households have more members.

**Table 2: Household sizes and growth estimates (sources: Census 2011, Census 2022)**

Area	Households 2011	Households 2022	Average household size 2011	Average household size 2022	Growth in households (%)
Free State Province	823,285	845,250	3.33	3.51	2.67
Lejweleputswa DM	182,247	189,807	3.43	3.58	4.15
Matjhabeng LM	123,382	126,068	3.30	3.48	2.18
Fezile Dabi DM	144,971	145,539	3.37	3.50	0.39
Moqhaka LM	45,661	42,789	3.52	3.63	-6.29

The total dependency ratio is used to measure the pressure on the productive population and refer to the proportion of dependents per 100 working-age population. As the ratio increases, there may be an increased burden on the productive part of the population to maintain the upbringing and pensions of the economically dependent. A high dependency ratio can cause serious problems for a country as the largest proportion of a government's expenditure is on health, social grants and education that are most used by the old and young population.

The total dependency ratio in 2011 in the Matjhabeng LM was lower than on district or provincial level (Table 3). The same trend applied to the youth, aged and employment dependency ratios. Census 2022 showed that the total dependency ratio in the Free State has decreased, but in the Matjhabeng LM it has increased. Employed dependency ratio refers to the proportion of people dependent on the people who are employed, and not only those of working age. The employed dependency ratio for the Matjhabeng LM is lower than on district and provincial level. Wards 1 and 2 had the highest dependency ratios in 2011, suggesting higher levels of poverty in these wards.

Table 3: Dependency ratios (source: Census 2011;2022).

Area	Total dependency	Youth dependency	Aged dependency	Employed dependency
Free State Province	52.88	44.48	8.39	76.34
Free State '22	50.67	40.15	10.52	
Lejweleputswa DM	51.33	43.71	7.61	77.16



Lejweleputswa DM '22	51.70	41.74	9.96	
Matjhabeng LM	46.93	40.09	6.85	75.46
Matjhabeng LM '22	49.67	40.19	9.48	
Ward 1	57.50	48.40	9.10	81.53
Ward 2	59.94	52.77	7.17	83.65
Ward 3	50.87	39.24	11.63	73.16
Ward 4	50.93	45.96	4.98	80.53
Ward 8	40.72	35.26	5.46	65.32
Ward 10	52.08	46.18	5.90	75.77
Ward 11	50.06	45.31	4.75	78.19
Ward 12	44.02	38.75	5.27	73.10
Ward 13	44.30	40.34	3.96	78.30
Ward 15	46.53	42.89	3.64	77.24
Ward 16	46.89	42.93	3.96	77.35
Ward 17	52.26	47.85	4.41	80.69
Ward 23	46.56	44.12	2.44	79.72
Ward 25	43.89	36.96	6.93	61.53
Fezile Dabi LM	51.94	42.70	9.24	75.88
Fezile Dabi LM '22	52.56	42.45	10.10	
Moqhaka LM	50.50	40.65	9.85	77.55
Moqhaka LM '22	54.43	44.10	10.33	
Ward 2	44.80	34.72	10.07	63.66

Poverty is a complex issue that manifests itself in economic, social, and political ways and to define poverty by a unidimensional measure such as income or expenditure would be an oversimplification of the matter. Poor people themselves describe their experience of poverty as multidimensional. The South African Multidimensional Poverty Index (SAMPI) (Statistics South Africa, 2014) assess poverty on the dimensions of health, education, standard of living and economic activity using the indicators child mortality, years of schooling, school attendance, fuel for heating, lighting, and cooking, water access, sanitation, dwelling type, asset ownership and unemployment.



The poverty headcount refers to the proportion of households that can be defined as multi-dimensionally poor by using the SAMPI's poverty cut-offs (Statistics South Africa, 2014). The poverty headcount has increased on all levels since 2011 ([Table 4](#)), indicating an increase in the number of multi-dimensionally poor households.

The intensity of poverty experienced refers to the average proportion of indicators in which poor households are deprived (Statistics South Africa, 2014). The intensity of poverty has increased slightly on all levels. The intensity of poverty and the poverty headcount is used to calculate the SAMPI score. A higher score indicates a very poor community that is deprived on many indicators. The SAMPI score in the Matjhabeng LM area has decreased between 2011 and 2016, suggesting an improvement in some respects relating to poverty in this area. In the Moqhaka LM the SAMPI score has increased, indicating an increase in poverty in the area. SAMPI scores based on the 2022 Census data is not yet available.

Table 4: Poverty and SAMPI scores (sources: Census 2011 and Community Survey 2016).

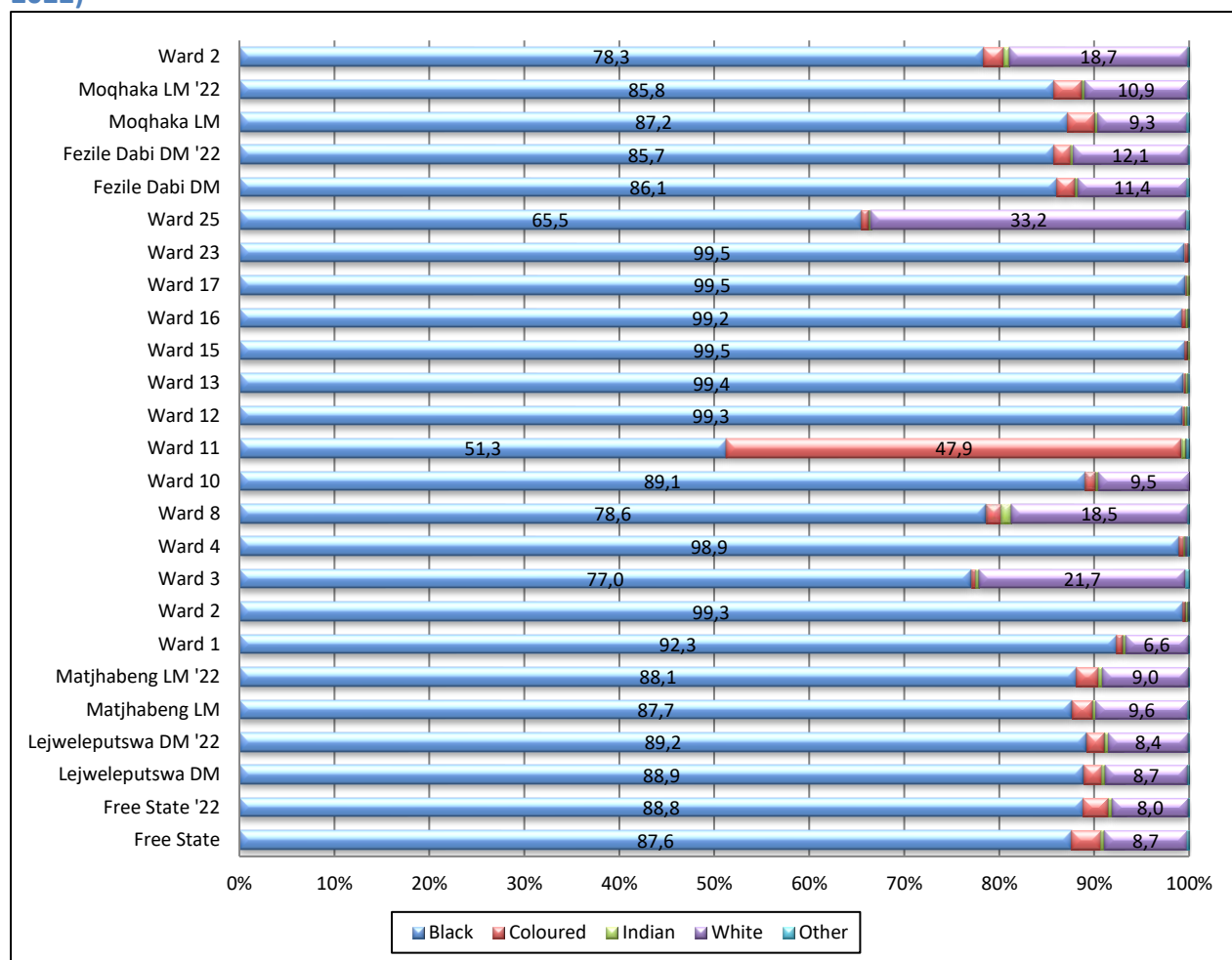
Area	Poverty headcount 2011 (%)	Poverty intensity 2011 (%)	SAMPI 2011	Poverty headcount 2016 (%)	Poverty intensity 2016 (%)	SAMPI 2016
Free State Province	5.5	42.2	0.023	5.5	41.7	0.023
Lejweleputswa DM	5.6	42.8	0.024	4.8	42.2	0.020
Matjhabeng LM	5.5	43.0	0.024	4.3	41.8	0.018
Fezile Dabi DM	4.4	42.2	0.019	4.9	41.9	0.021
Moqhaka LM	2.7	41.4	0.011	2.9	42.7	0.012



5.2.2 Population composition, age, gender and home language

In all the areas under investigation, the majority of the population belongs to the Black population group (Figure 2), except in Ward 11 where almost half of the population belongs to the Coloured population group.

Figure 2: Population distribution (shown in percentage, source: Census 2011, Census 2022)



The average age is very similar on local, district and provincial level (Table 5), with an increase between 2011 and 2022. The average age on a ward level varied.

Table 5: Average age (source: Census 2011, Census 2022).

Area	Average Age (in years)
Free State Province	28.38
Free State Province '22	30.61
Lejweleputswa DM	28.52
Lejweleputswa DM '22	30.28

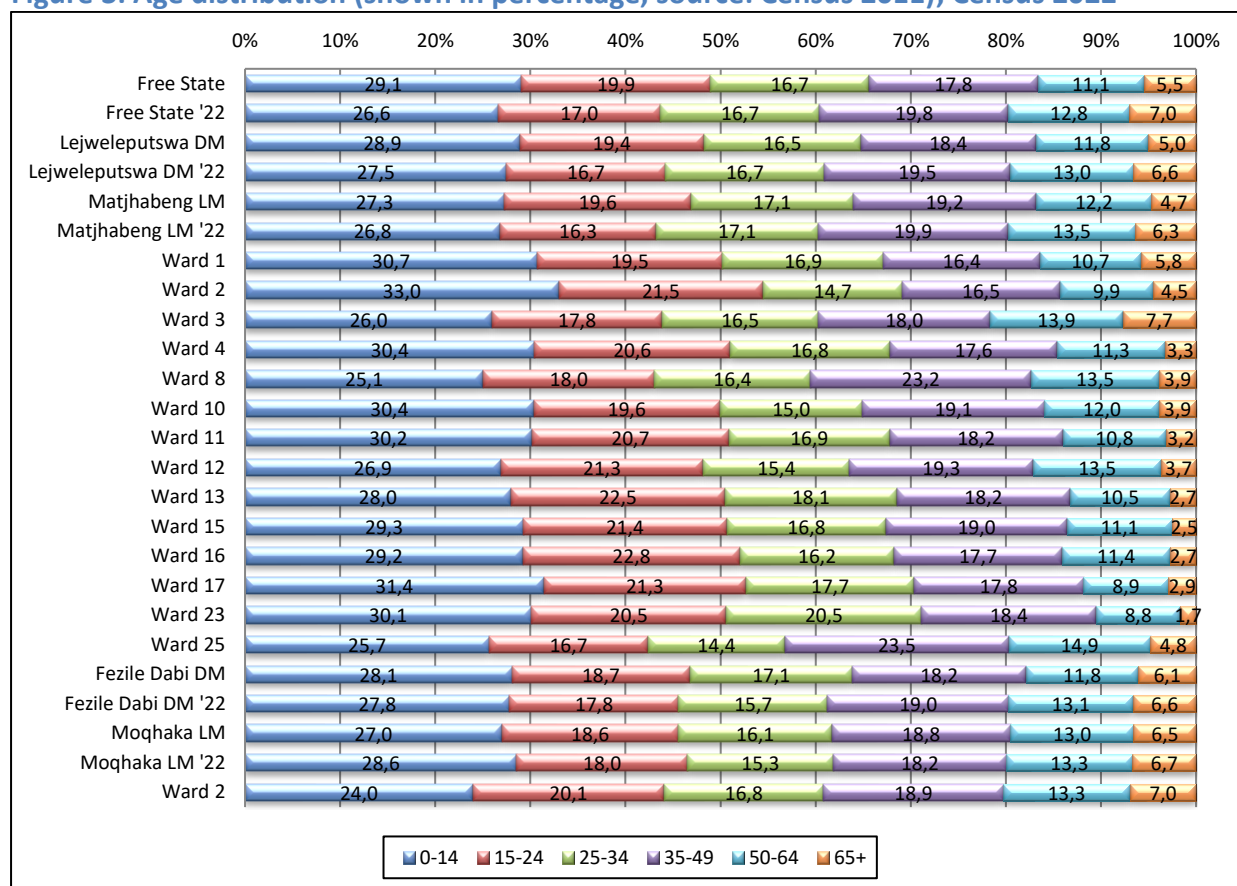


Matjhabeng LM	28.89
Matjhabeng LM ' 22	30.53
Ward 1	30.20
Ward 2	26.93
Ward 3	30.46
Ward 4	27.93
Ward 8	26.40
Ward 10	31.03
Ward 11	26.89
Ward 12	30.20
Ward 13	27.75
Ward 15	26.93
Ward 16	28.73
Ward 17	27.00
Ward 23	27.03
Ward 25	26.87
Fezile Dabi LM	29.22
Fezile Dabi LM '22	31.83
Moqhaka LM	30.11
Moqhaka LM '22	32.31
Ward 2	30.80



The age distribution of the areas under investigation shows that the population on local, district or provincial level tend to be slightly older, with older populations in Wards 3, 8, and 25 of Matjhabeng LM and Ward 2 of Moqhaka LM (Figure 3).

Figure 3: Age distribution (shown in percentage, source: Census 2011), Census 2022

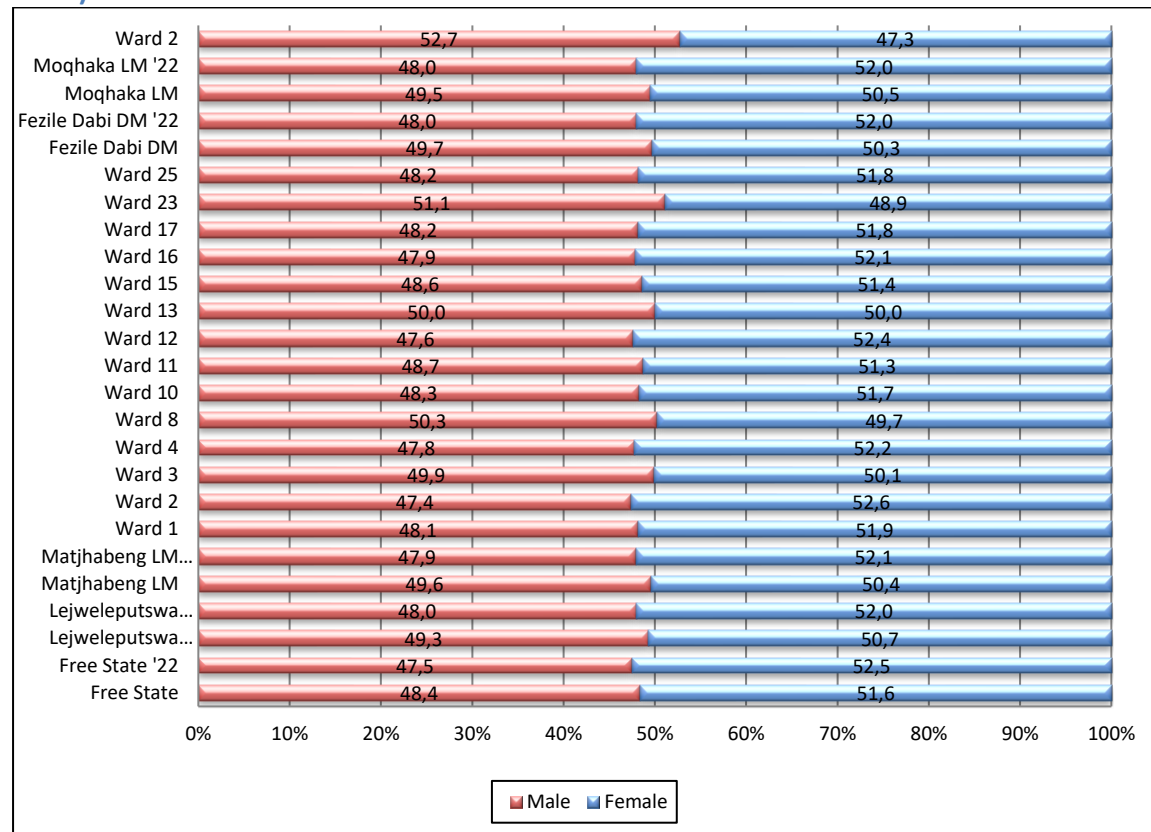




5.2.3 Gender

The gender distribution on provincial, district and local level is balanced ([Figure 4](#)), but on a ward level the profiles show a slight bias towards females in most wards.

Figure 4: Gender distribution (shown in percentage, source: Census 2011, Census 2022)

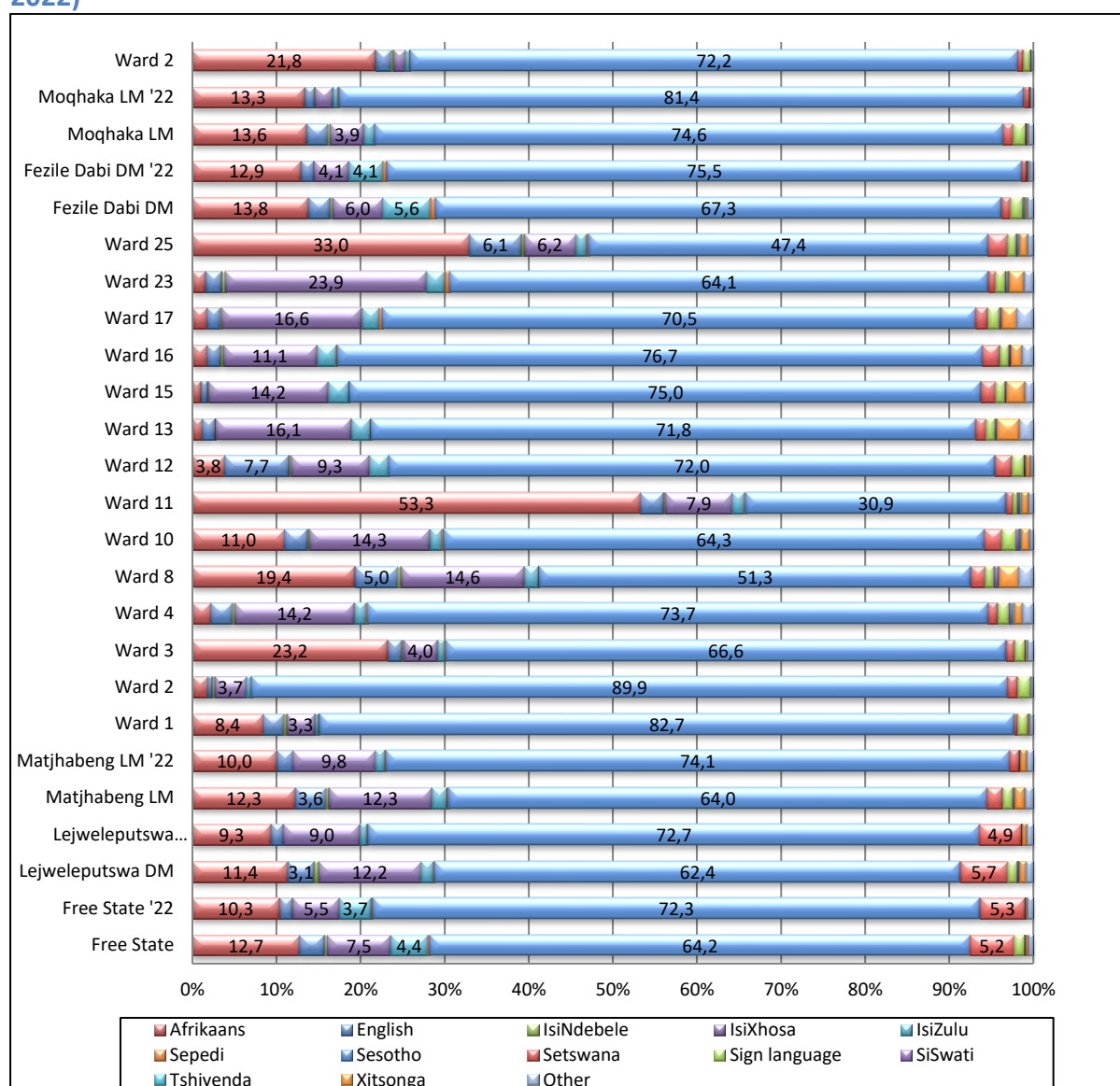




5.2.4 Language

The majority of people in the area under investigation have Sesotho as home language (Figure 5), except in Ward 11 where more than half of people have Afrikaans as home language. Wards 3, 8 and 25 also have a relatively high incidence of people with Afrikaans as home language. Home language should be taken into consideration when communicating with the local communities and based on the profile of the area communication should take place in Sesotho, Afrikaans, and English.

Figure 5: Language distribution (shown in percentage, source: Census 2011, Census 2022)

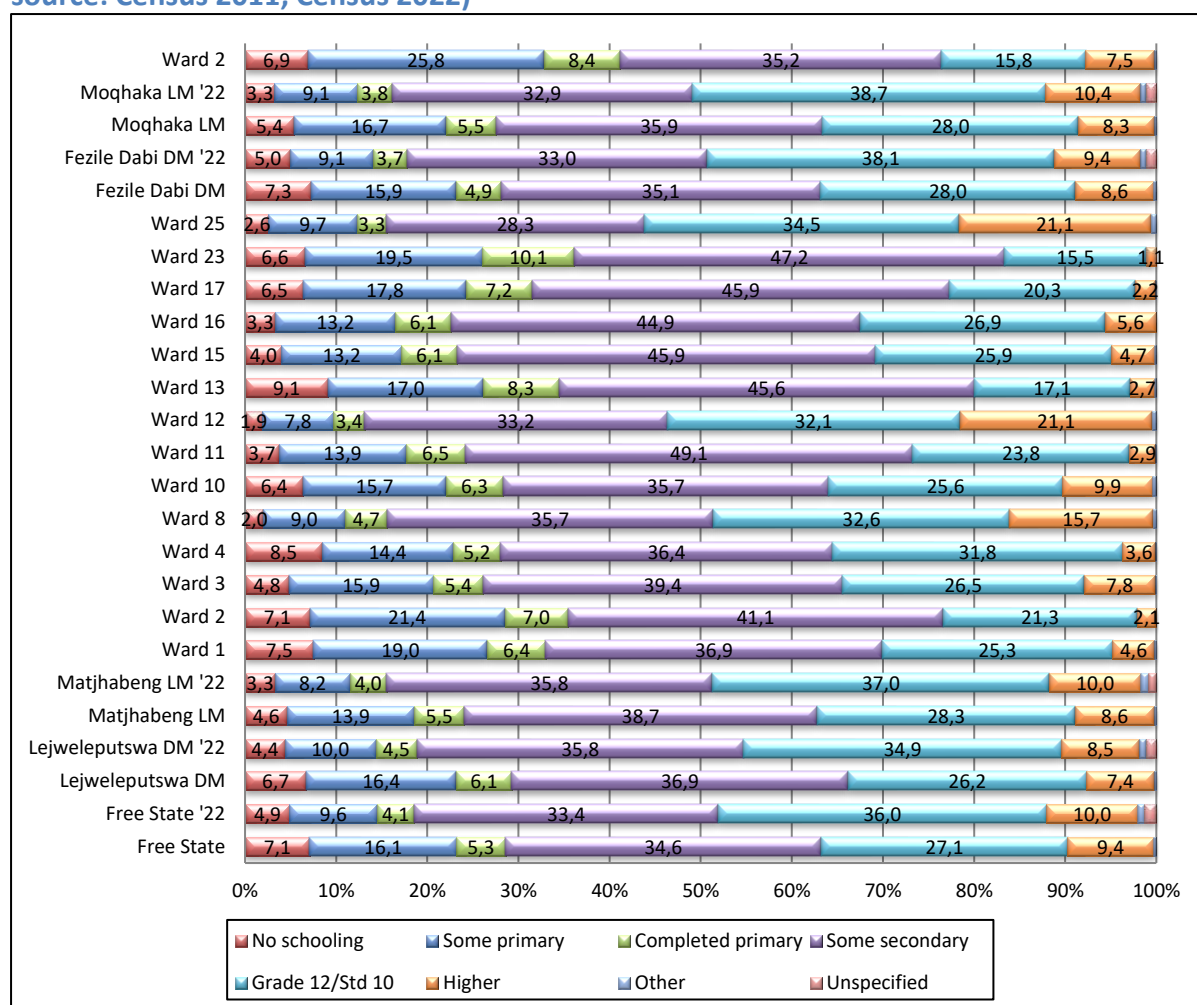




5.2.5 Education

Figure 6 shows the education profiles for the areas under investigation for those aged 20 years or older. In 2011 the literacy levels varied on a ward level, with the highest levels of literacy in Wards 8, 12, and 25.

Figure 6: Education profiles (those aged 20 years or older, shown in percentage, source: Census 2011, Census 2022)

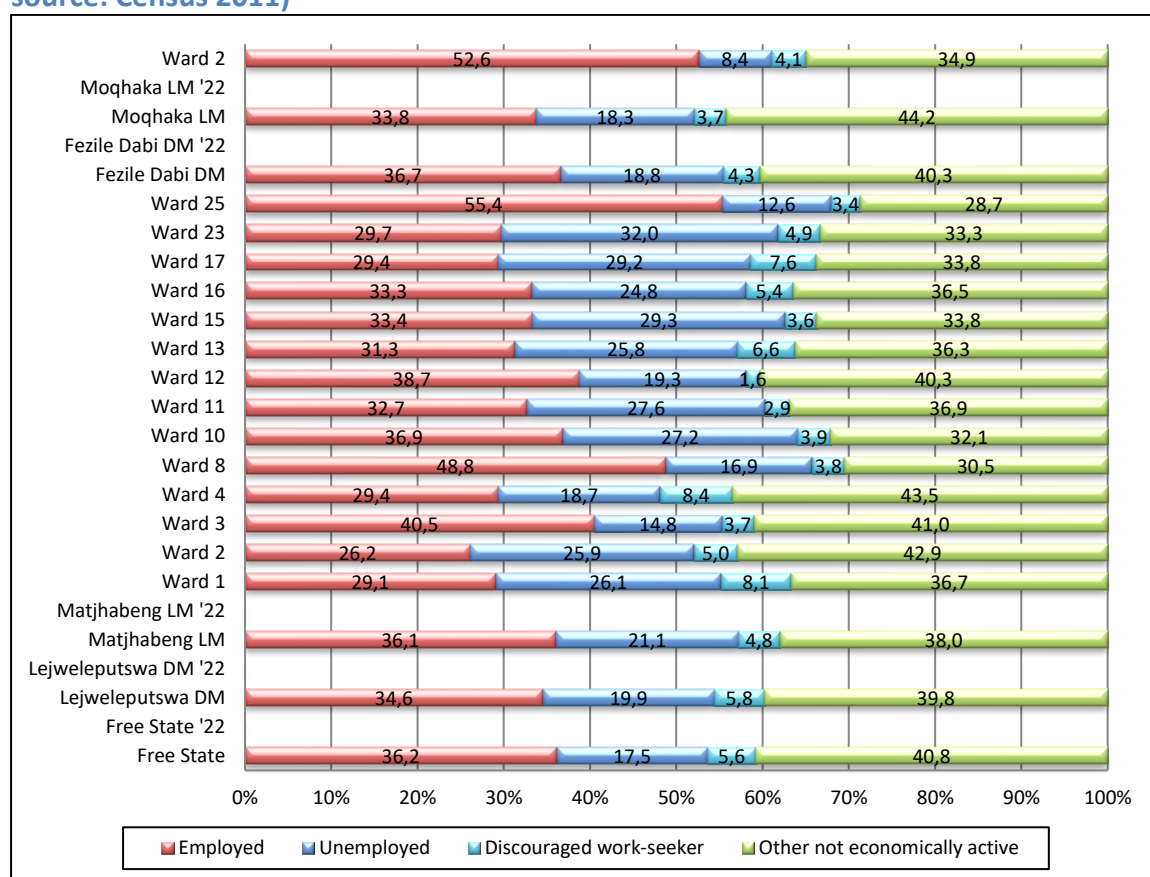




5.2.6 Employment

In 2011 Wards 3, 8, and 25 had the highest proportion of people of economically active age (aged between 15 years and 65 years) that were employed (Figure 7), while Ward 2 had the lowest. Since 2010 employment in the gold mining industry, which is a major employer in the area, showed a steady decline from 157 019 in 2010 to 93 841 in 2022 (www.mineralscouncil.org.za). As such the proportion unemployed people in the area are likely to have increased since 2011.

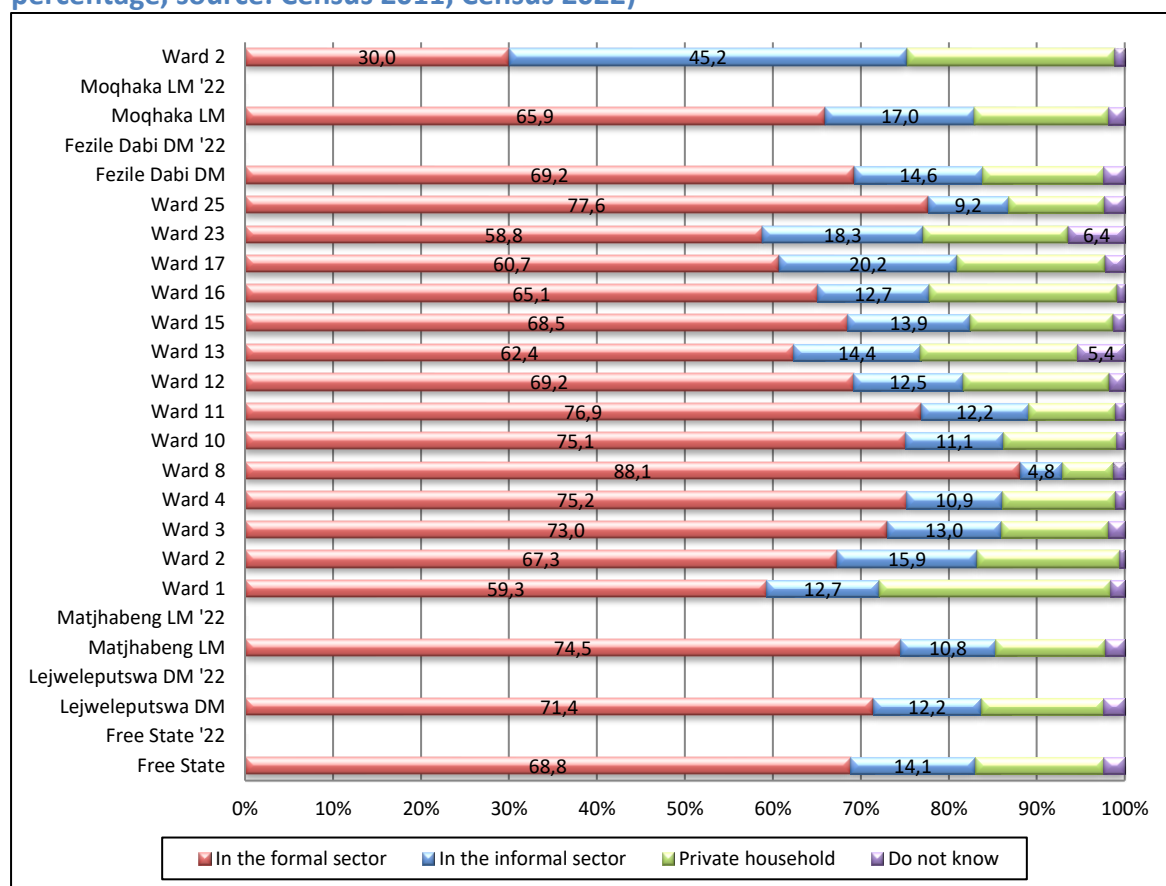
Figure 7: Labour status (those aged between 15 - 65 years, shown in percentage, source: Census 2011)





The majority of the employed people in the areas under investigation work in the formal sector (Figure 8). Ward 8 has the highest proportion of people working in the formal sector.

Figure 8: Employment sector (those aged between 15 - 65 years, shown in percentage, source: Census 2011, Census 2022)

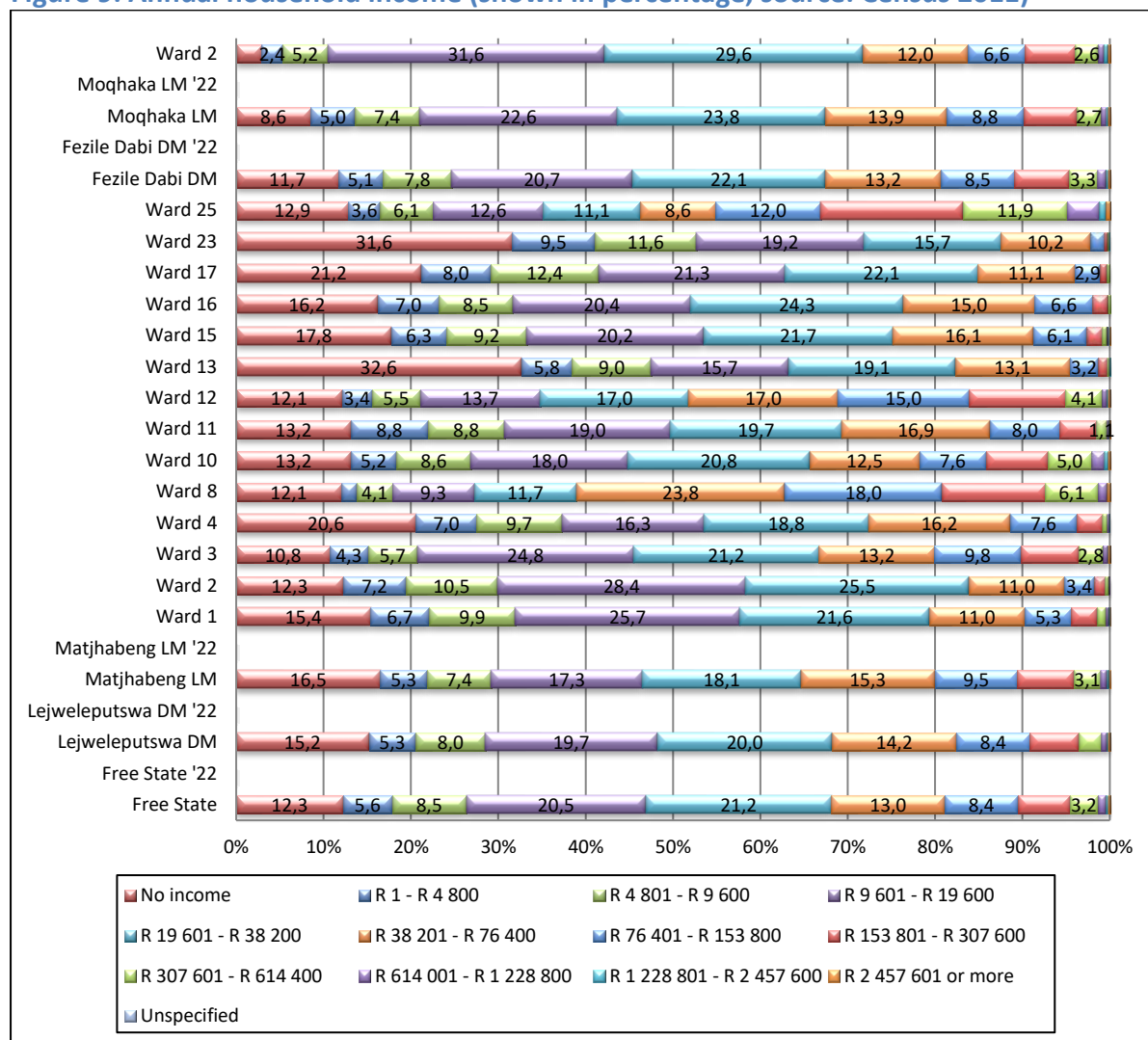




5.2.7 Household Income

In 2012 Ward 8 has the highest average household income (Figure 9), followed by Ward 12 and 25.

Figure 9: Annual household income (shown in percentage, source: Census 2011)





5.2.8 Housing

On a ward level the majority of households live in areas classified as urban. In Wards 1, 3, 4, and 10 of the Matjhabeng LM and Ward 2 of the Moqhaka LM there are households that live on land classified as farmland (Table 6). The majority of households of Ward 2 of the Moqhaka LM live on land classified as farmland.

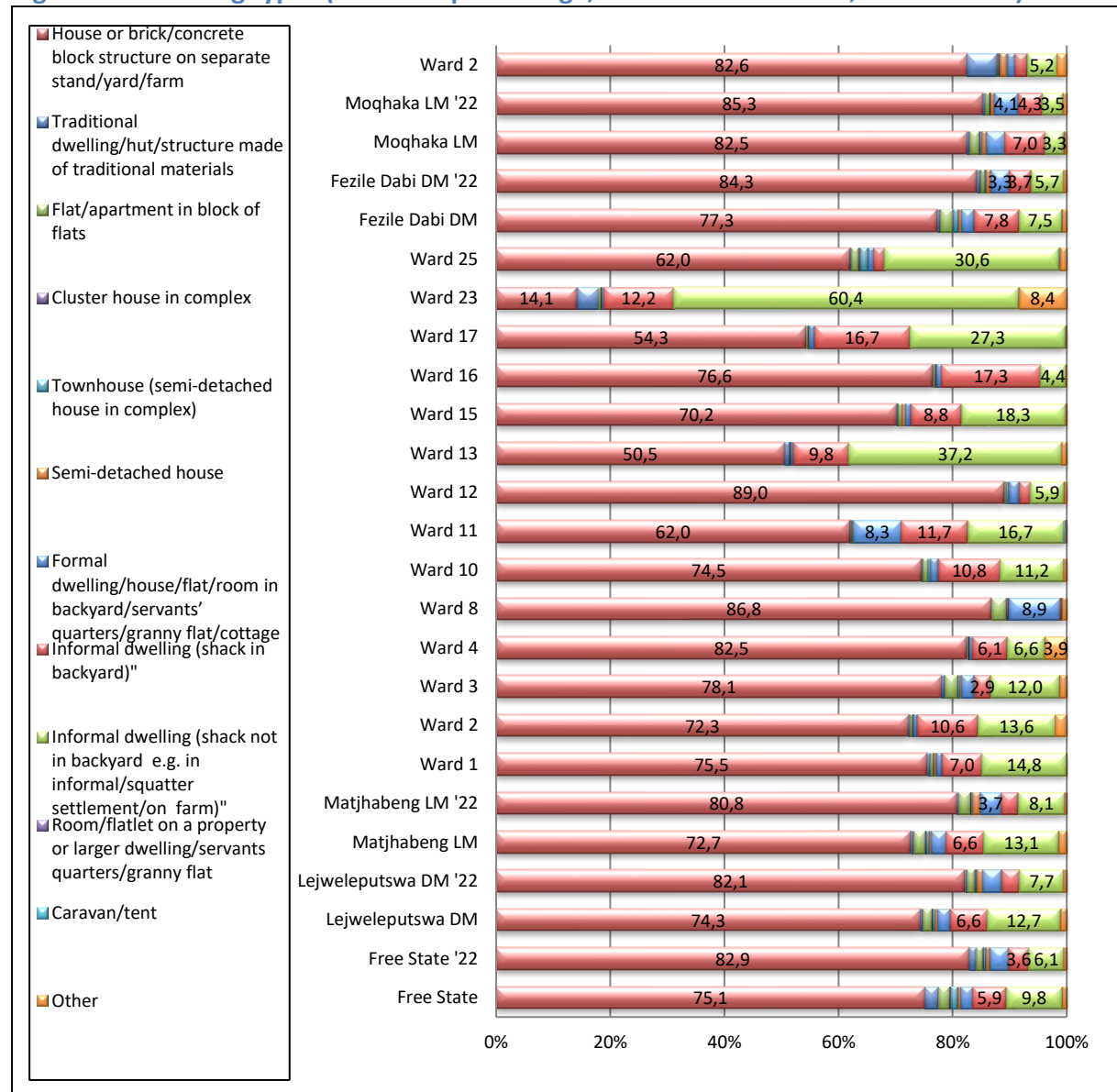
Table 6: Geotypes (source: Census 2011, households)

Area	Urban	Tribal/Traditional	Farm
Free State Province	84.5	8.8	6.7
Lejweleputswa DM	93.86	-	6.14
Matjhabeng LM	97.67	-	2.33
Ward 1	88.83	-	11.17
Ward 2	100.00	-	-
Ward 3	81.49	-	18.51
Ward 4	98.74	-	1.26
Ward 8	100.00	-	-
Ward 10	92.92	-	7.08
Ward 11	100.00	-	-
Ward 12	100.00	-	-
Ward 13	100.00	-	-
Ward 15	100.00	-	-
Ward 16	100.00	-	-
Ward 17	100.00	-	-
Ward 23	100.00	-	-
Ward 25	100.00	-	-
Fezile Dabi DM	92.47	-	7.53
Moqhaka LM	89.08	-	10.92
Ward 2	19.37	-	80.63



Most of the dwellings in the area are houses or brick/concrete block structures that are on a separate yard, stand or farm (Figure 10). Almost three quarters of households in Ward 23 live in informal dwellings in 2012.

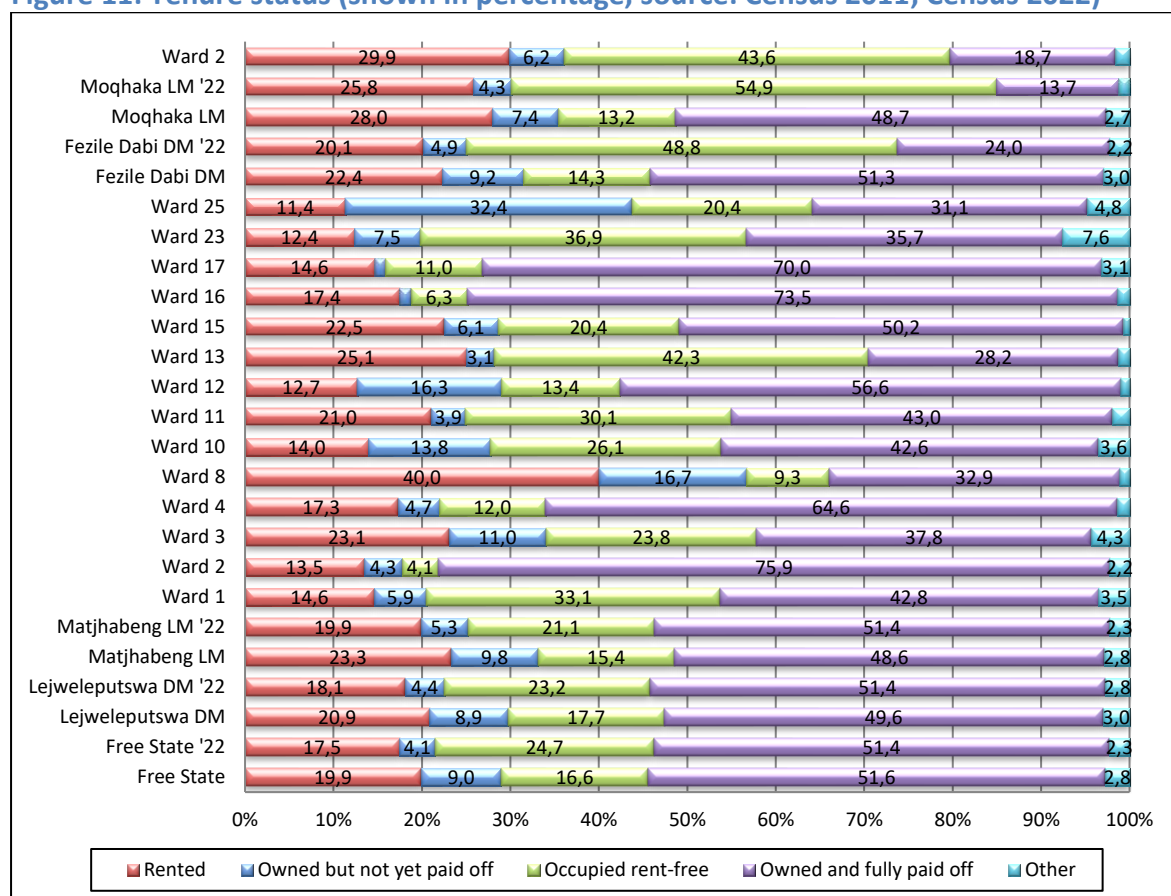
Figure 10: Dwelling types (shown in percentage, source: Census 2011, Census 2022)





Ward 8 had the largest proportion of households that are renting their dwellings in 2012 (Figure 11), with about 40% of the households renting their dwellings.

Figure 11: Tenure status (shown in percentage, source: Census 2011, Census 2022)

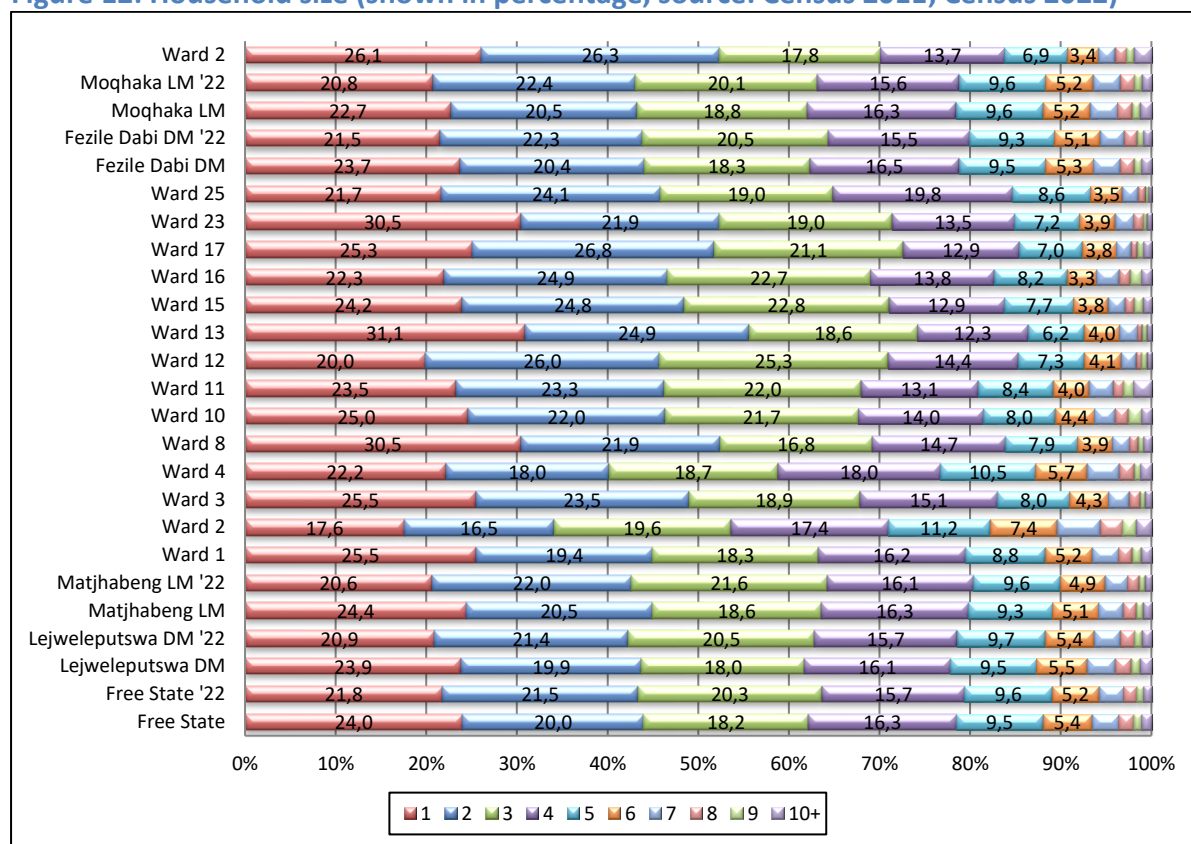




5.2.9 Household Size

Household sizes on a ward level in the Matjhabeng LM varies (Figure 12), with approximately 50% or more of households in Wards 13, 17 and 23 in the Matjhabeng LM and Ward 2 in the Moqhaka LM. consisting of one or two people, compared to just over 40% on local, district and provincial level. This is very typical in mining areas where there are migrant workers. In Ward 2 less than 40% of households consist of only one or two members.

Figure 12: Household size (shown in percentage, source: Census 2011, Census 2022)

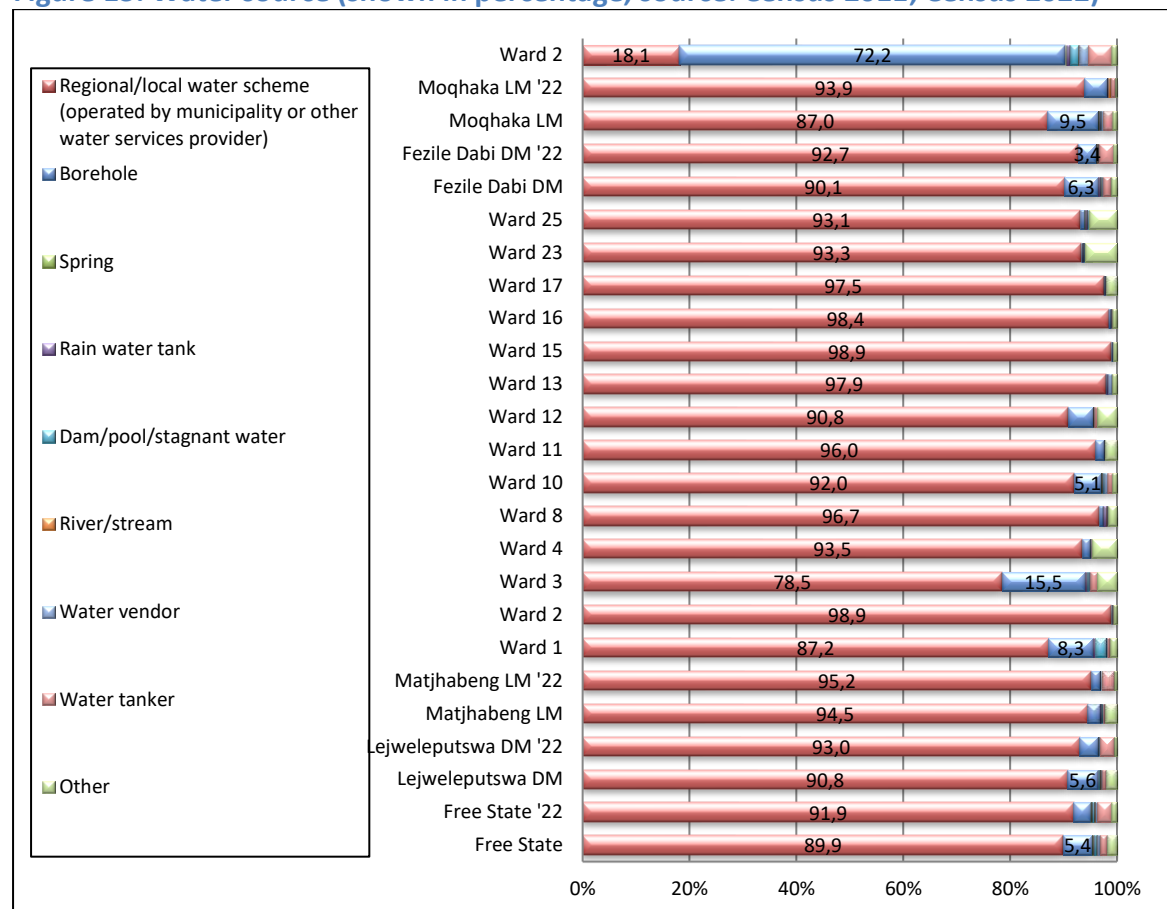




5.2.10 Access to water and sanitation

Ward 2 of the Moqhaka LM has the lowest incidence of households that access to water from a local or a regional water scheme, but the highest incidence of households that get their water from another source (Figure 13). Census 2011 does not specify what the 'other' water sources include. Almost 16% of households in Ward 3 get their water from a borehole.

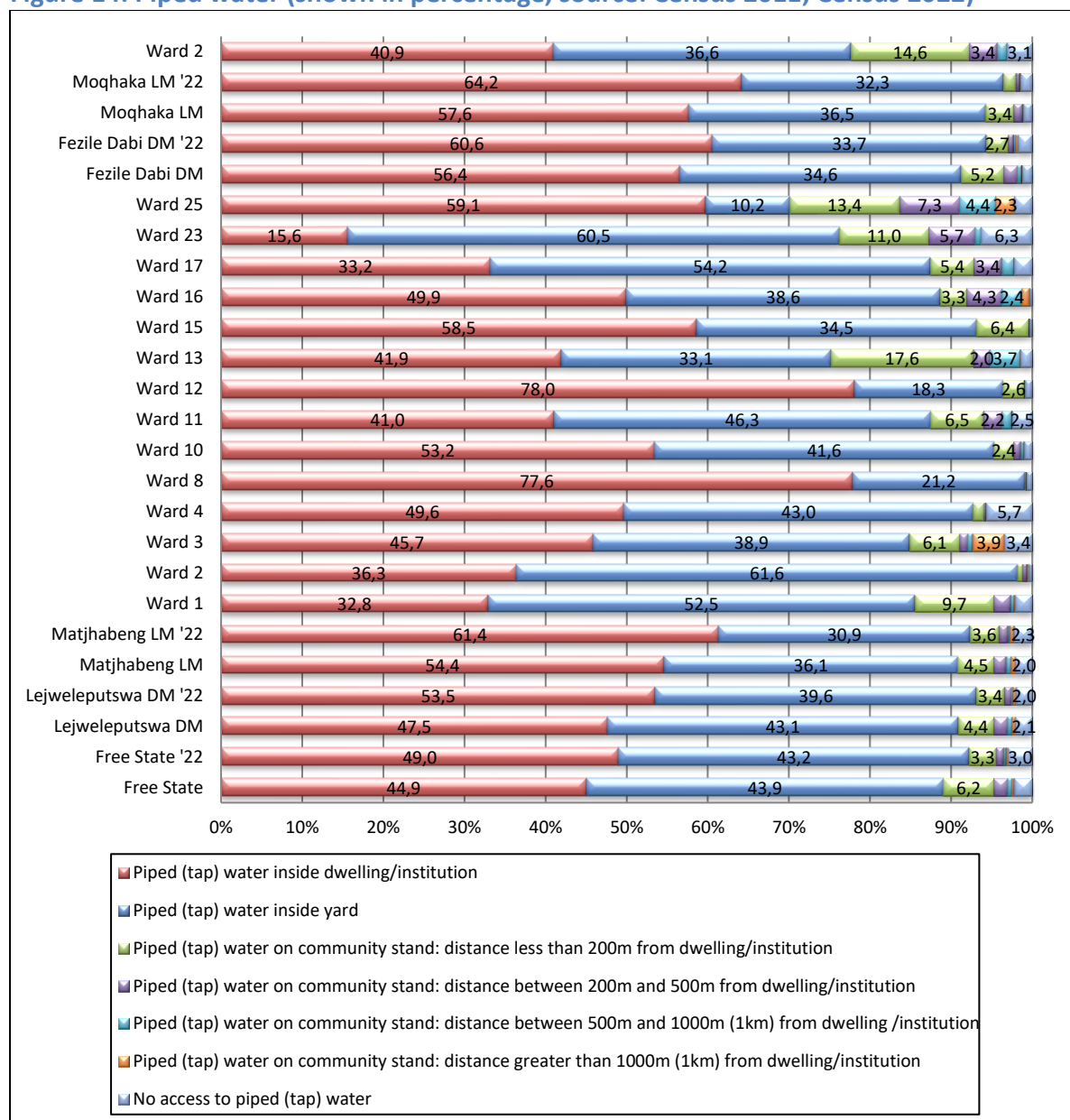
Figure 13: Water source (shown in percentage, source: Census 2011, Census 2022)



Access to piped water, electricity and sanitation relate to the domain of Living Environment Deprivation as identified by Noble et al (2006). Just over three quarters of households in Ward 8 has access to piped water inside the dwelling (Figure 14). This is much higher than on local, district and provincial level. The proportion of households in Wards 1, 2, 17, and 23 with access to water inside their dwellings are much lower than on local, district and provincial level.



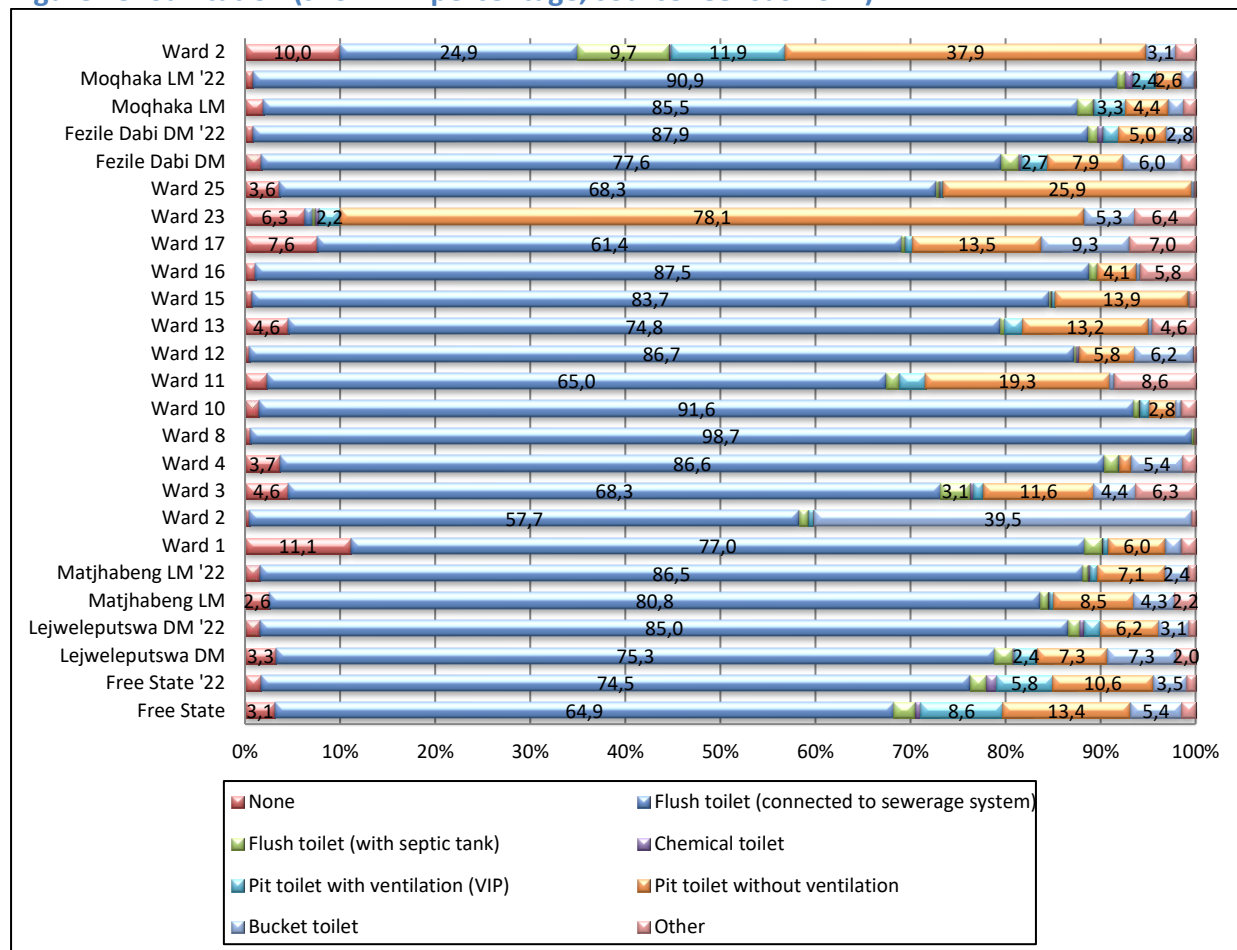
Figure 14: Piped water (shown in percentage, source: Census 2011, Census 2022)





The majority of households in Ward 23 have access to a pit toilet without ventilation (Figure 15). The level of access to flush toilets that are connected to a sewerage system varies between the wards.

Figure 15: Sanitation (shown in percentage, source: Census 2011)

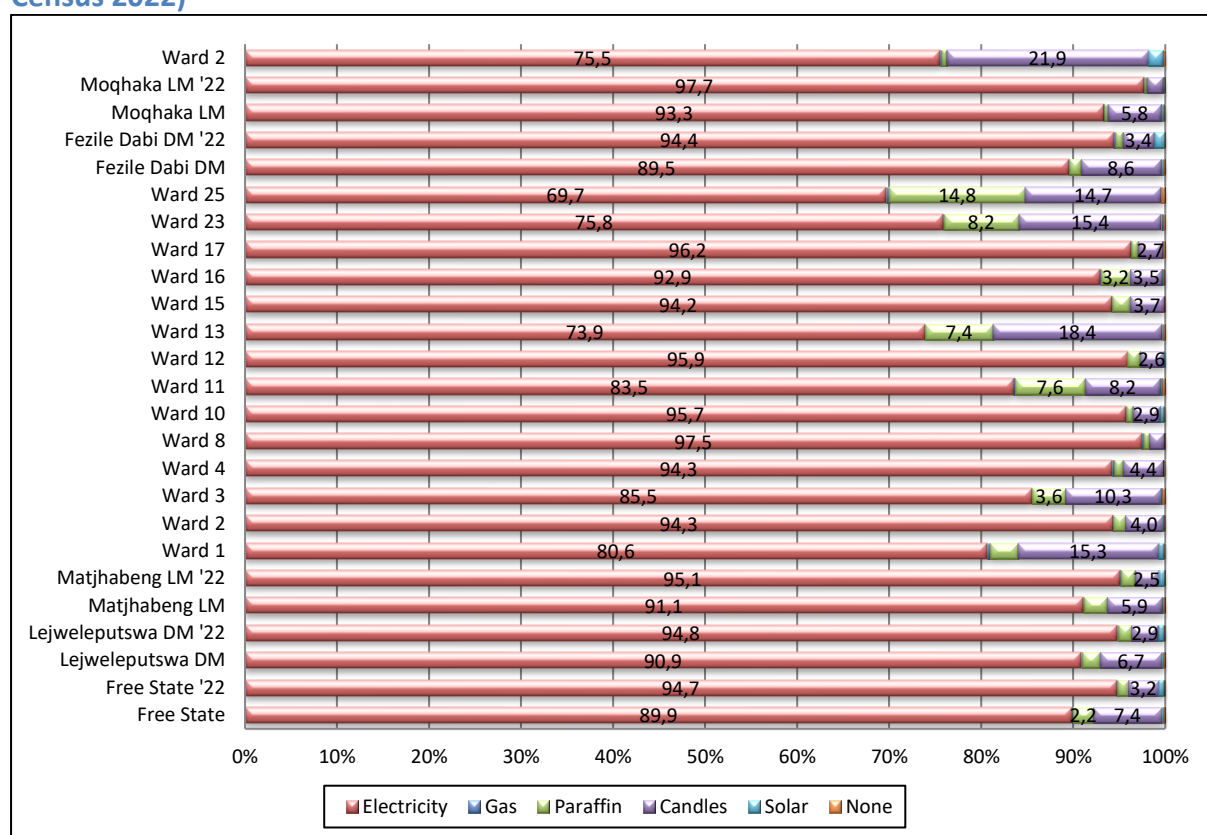




5.2.11 Energy

Electricity is seen as the preferred lighting source (Noble et al, 2006) and the lack thereof should thus be considered a deprivation. Even though electricity as an energy source may be available, the choice of energy for cooking may be dependent on other factors such as cost. Wards 13, 23 and 25 of Matjhabeng LM and Ward 2 of the Moqhaka LM have the lowest proportion of households with access to electricity as energy source for lighting (Figure 16).

Figure 16: Energy source for lighting (shown in percentage, source: Census 2011, Census 2022)

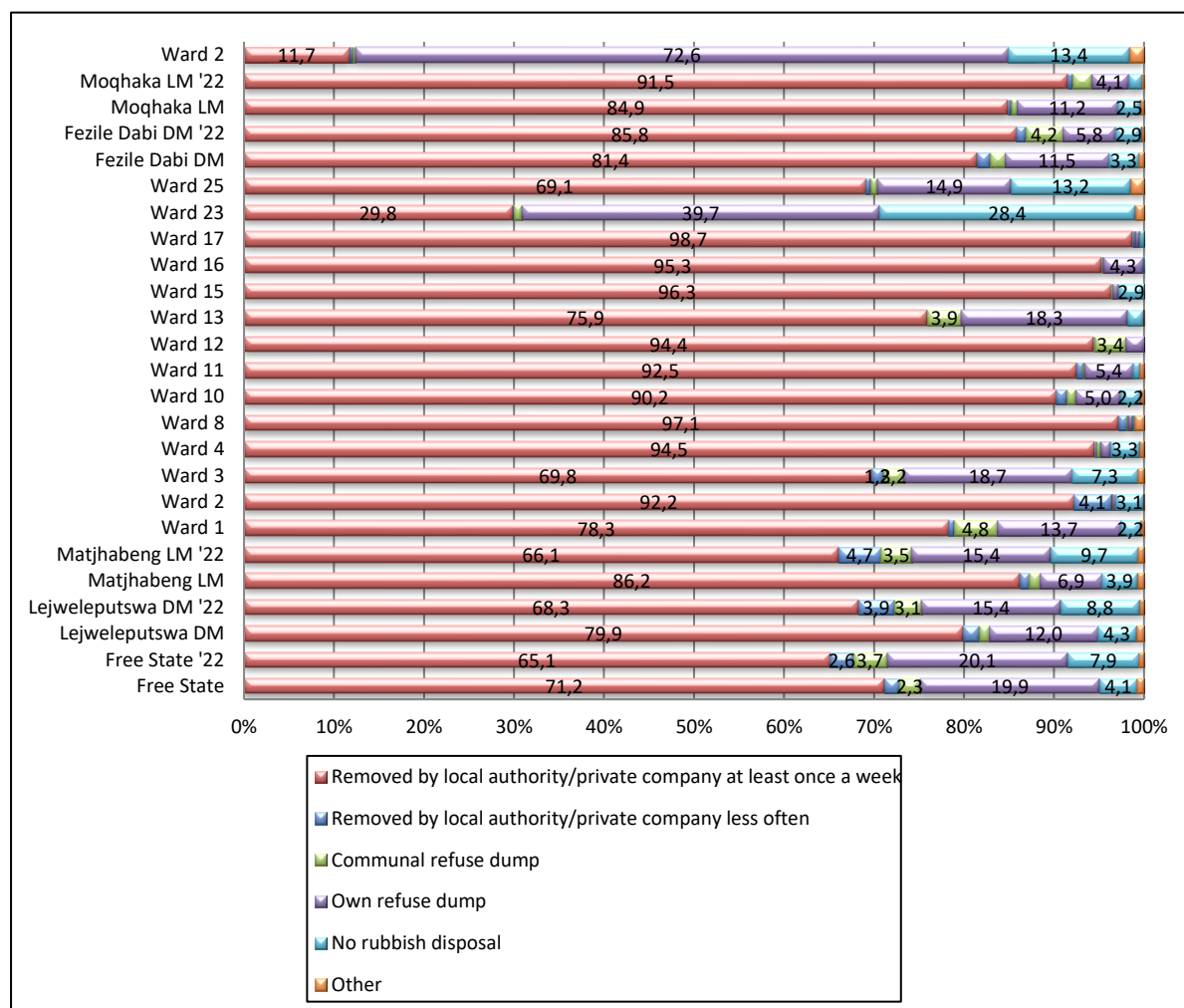




5.2.12 Refuse removal

The incidence of households that have their refuse removed at least once a week by a local authority or private company (Figure 17) is the lowest in Ward 2 of the Moqhaka LM and Ward 23 of the Matjhabeng LM.

Figure 17: Refuse removal (shown in percentage, source: Census 2011, Census 2022)





6 Stakeholder Identification and Analysis

6.1 Approach

Stakeholders include all individuals and groups who are affected by, or can affect, a given operation. Stakeholders consist of individuals, interest groups and organizations (Vanclay, Esteves, Aucamp & Franks, 2015). Stakeholder analysis is a deliberate process of identifying all stakeholders of a project - the individuals and groups that are likely to impact or be impacted by it - and understanding their concerns about the project and/or relationship with it (Vanclay et al., 2015). Stakeholder analysis assists the proponent with understanding the local cultural and political context. It is acknowledged that different stakeholder groups have different interests, and that there are individual differences within stakeholder groups. The purpose of this section of the report is to introduce the stakeholder groups that will be affected by the proposed projects. The following stakeholder groups were identified and their interest in the projects will be discussed briefly in the section below.

6.2 List of stakeholders

The following stakeholders that may have an interest in or affected by the proposed Motouane project have been identified:

Table 7: Detail of Stakeholder Groups.

Stakeholder Grouping	Organisation
Internal Stakeholders	
Motuoane Energy (Pty) Ltd	Motouane Staff involved with the project
Government	
Governmental departments and directorates	<ul style="list-style-type: none"> • Free State Provincial Government • Petroleum Agency of South Africa • National Energy Regulator of South Africa (NERSA) • Department of Environment, Forestry and Fisheries • Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs • Free State Department of Water and Sanitation • Free State Department of Police, Roads, and Transport • Department of Mineral Resources and Energy • Lejweleputswa District Municipality • Fezile Dabi District Municipality • Moqhaka Local Municipality • Matjhabeng Local Municipality



Stakeholder Grouping	Organisation
	<ul style="list-style-type: none"> South African Heritage Resources Agency (SAHRA) Free State Provincial Heritage Resources Authority
State-owned entities and regulators	<ul style="list-style-type: none"> Eskom Distribution Eskom Transmission South African National Roads Agency Limited (SANRAL)
Business	
Local Businesses	Various in Virginia, Welkom, Thabong, Theunissen, Henneman, Phomolong, Ventersburg and Riebeeckstad Free State Goldfields Chamber of Business
Contractors / Suppliers	Contractors providing sub-contracting services to Motouane Suppliers of goods to Motouane Suppliers receiving agricultural produce from the farmers in the project affected area Suppliers of agricultural goods to farmers in the project affected area
Other industries	Other applicants for renewable energy in the area
Environmental	
Environmental Interest groups	Endangered Wildlife Trust WESSA Birdlife South Africa Centre for Environmental Rights
Societal	
Social Organizations	Community forums (e.g., employment, youth)
Residents/ Community	
Residents	Residents of informal settlements, homeowners/tenants Virginia, Welkom, Thabong, Theunissen, Riebeeckstad, Henneman, Phomolong and Ventersburg
Local farmers	Farmers and farm workers on farms directly affected by boreholes or other infrastructure and neighbouring properties Other farmers and farm workers in the area

The identified level of interest of each stakeholder helps assist with designing the stakeholder engagement strategy for the project, and to decide how much time to devote to engaging with each stakeholder or group. This is a qualitative analysis that should ideally be done by the stakeholder engagement team and revisited as needed, as the interest of stakeholders may change after the construction phase and in the operation phase. The engagement levels required for each group of stakeholders as revealed through this analysis may be more than consultation, for example they may include partnerships, involvement in community development plans or community monitoring, strategic planning, or any other activity. Knowing the needs, issues and expectations of affected stakeholders assist with building and retaining good relationships with them, and with managing their expectations.



7 Description of potential impacts

7.1 Social changes versus social impacts

It is important to understand the difference between a social change process and a social impact. For the purpose of the SIA report both these categories will be investigated. For the purpose of this report, only possible social impacts will be mentioned.

Social change processes are set in motion by project activities or policies. Social change processes can be measured objectively, independent of the local context. Examples of a social change process are increase in the population, relocation or presence of temporary workers. Under certain circumstances these processes may result in social impacts, but if managed properly these changes may not create impacts. Whether impacts are caused will depend on the characteristics and history of the host community, and the extent of mitigation measures that are put in place (Vanclay, 2003).

The following categories of social change processes should be investigated in a SIA:

- Demographic processes;
- Economic processes;
- Geographic processes;
- Institutional and legal processes;
- Emancipatory and empowerment processes;
- Socio-cultural processes.

A social impact is something that is experienced or felt by humans. It can be positive or negative. Social impacts can be experienced in a physical or perceptual sense. Therefore, two types of social impacts can be distinguished:



- Objective social impacts – i.e. impacts that can be quantified and verified by independent observers in the local context, such as changes in employment patterns, in standard of living or in health and safety.
- Subjective social impacts – i.e. impacts that occur “in the heads” or emotions of people, such as negative public attitudes, psychological stress or reduced quality of life.

It is important to include subjective social impacts, as these can have far-reaching consequences in the form of opposition to, and social mobilisation against the project (Du Preez & Perold, 2005). The following categories of social impacts will be investigated:

- Health and social well-being.
- Quality of the living environment.
- Economic impacts and material well-being.
- Cultural impacts.
- Family and community impacts.
- Institutional, legal, political and equity impacts.
- Gender impacts.

In conclusion, it is very likely that a number of social changes processes will be set in motion by the project. Whether these processes cause social impacts will depend on the successful implementation of suggested mitigation measures. However, it must be considered that the social environment is dynamic and constantly changing, making it difficult to predict exact impacts. External processes not related to the project, like political changes or global economic changes can alter the social environment in a short period of time, and therefore alter the predicted impacts.



7.2 Preliminary social impacts

Sources of social impacts are often not as clear-cut as those in the biophysical environment. Social impacts are not site-specific but occur in the communities surrounding the proposed site – where the people are. The following is a list of some of the possible impacts that may occur as a result of the project. It must be stated that the list is not exhaustive and should be expanded on in the EIA phase when consultation with stakeholders will take place. Mitigation measures are context specific and the mitigation measures in this report should be viewed as guidelines and may change once consultation with stakeholders has taken place. These impacts should be investigated further in the Environmental Impact Assessment phase of the project. [Table 8](#) shows impacts that can occur in the different phases of the project and suggests possible mitigation measures. These measures can be refined once further stakeholder consultation has taken place.

Table 8: Preliminary impacts in the different phases of the project.

Impacts	Mitigation measures
PLANNING AND DESIGN PHASE	
Economic impacts	
Interference with existing land uses/livelihoods	If existing activities will be affected negatively Motouane must enter into negotiations with the affected parties as soon as reasonably achievable to ensure the affected parties are compensated fairly or can make additional arrangements. Interference with existing livelihoods should be avoided if possible.
Temporary unskilled, semi-skilled and skilled employment opportunities available	Contractors should be required to make use of a certain proportion of local labour – it is acknowledged that not all skills will be available locally. Jobs should be advertised in a way that is accessible to all members of society and labour desks should be established in accessible areas.
Unrealistic expectations regarding the potential positive economic spin-offs of the project	Motouane must make sure that the public understand that the project is currently in the exploration phase, and that economic spin-offs during this phase is limited. Unless the expectations regarding this aspect is managed clearly, it can potentially cause social unrest, especially given the current economic conditions and high levels of unemployment in the area.
Quality of life impacts	
Damage to road and associated infrastructure (e.g. bridges culverts etc.)	Motouane should engage with the relevant roads authority if any provincial roads will be impacted on. If private roads are affected, it is the responsibility of Motouane to maintain these roads as long as they



Impacts	Mitigation measures
	use it.
Impacts on livelihoods due to behaviour of contractors (leaving gates open, driving off-road, leaving garbage on the properties, lack of sanitation facilities)	All contractors should sign a code of conduct as part of their induction process. Toolbox talks must be designed to include social and environmental aspects. A fining system must be put in place for any digressions affecting the landowners. It is important to install respect for the landowners and their livelihoods from the beginning of the project.
Safety of all road users (vehicle and pedestrians) compromised as a result of additional road users	Motuoane should compile and implement a traffic safety plan, which should form part of the Health and Safety requirements for all contractors. Appropriate road signage must be used at the entry and exit points to the site. Although Motuoane cannot take responsibility for all road users, they should include road safety toolbox talks.
Impacts on mental and physical well-being	
Perceptions about the outcomes of the drilling process (what are they looking for?)	Motuoane should compile a background information document explaining the process and motivation for the project in laymen terms. This should be distributed to local stakeholders. They can also consider a media awareness campaign on local radio stations and press statements to local papers. These media can also be used to assist with curbing expectations.
Fears and perceptions about the potential impacts of the project	Motuoane should compile a background information document explaining the process and motivation for the project in laymen terms. This should be distributed to local stakeholders. They can also consider a media awareness campaign on local radio stations and press statements to local papers. These media can also be used to assist with curbing expectations.
Concern about safety of farm residents	Motuoane should work with the local farmer's association to create a farm access protocol for everybody that need to access the properties. All contractors and employees need to wear photo identification cards. Vehicles should be clearly marked as construction vehicles. Entry and exit points of the site should be controlled. Motuoane should contact the local community police forum and a representative of Motuoane should attend all their meetings while they are working in the area.
EXPLORATION PHASE	
Economic impacts	
Secondary economic opportunities e.g. transport, domestic services, catering etc.	Motuoane should ensure at least 50% of secondary economic opportunities are given to local contractors where possible. As far as possible services and goods must be procured locally.
Temporary growth in local economy	This is a positive impact that will occur by default when the exploration team lives locally, and they utilise local services and support local shops. As far as possible services and goods needed for the project must be procured locally.
Temporary low, semi-skilled or	Recruitment should be focussed in the local area of influence and



Impacts	Mitigation measures
skilled employment opportunities available	preference should be given to local people. It is very likely that skilled labour will be available in the area due to the presence of the mines.
Impacts on livelihoods	
Introduction of invasive alien species that can potentially distribute outside the project affected area and pose a risk to farming activities	Motuoane should employ an environmental officer that oversees all the environmental aspects of the project. There must be a formal procedure in place on how to report incidents to ensure records of all grievances are kept. The farmers should have the contact details of the environmental officer and report any environmental incidents to him. If a farmer reports any invasion of alien species as a result of Motuoane activities to the environmental manager, he should act immediately to ensure the invasion does not spread further. If any damage was done as a result of their activities, Motuoane should carry the cost of rehabilitation and compensate the farmer for his losses.
Decrease in quality and availability of ground and surface water impacting on livelihoods, health and quality of life	A water census of boreholes on the directly affected properties should be conducted before the project commences and each affected party should be given the records affecting their property. Motuoane should keep records of all the properties. If any decline in the volume or quality of water occurs that can be linked to Motuoane activities, Motuoane should provide the affected parties with clean potable water until such a time that the quality and availability is restored to pre-project levels.
Damage to arable land resulting in impacts on existing livelihoods e.g. lower crop yields, financial losses	Motuoane should employ an environmental officer that oversees all the environmental aspects of the project. There must be a formal procedure in place on how to report incidents to ensure records of all grievances are kept, and responses are given within a certain time. The farmers should have the contact details of the environmental officer and report any environmental incidents to him. If it is proven that Motuoane is responsible for losses or damages they should compensate the landowner for the losses. If needed an external mediation process should be followed.
Interference with existing land uses/livelihoods	As far as possible interference with existing land uses/livelihoods should be avoided. If any interference takes place, the landowner should be compensated for their losses.
Increase in poaching incidents	The fences which the working areas must be checked for snares on a daily basis. All incidences must be reported to the closest police station. Anti-poaching toolbox talks should form part of the induction process of all the fencing teams. Any contractor or employee caught poaching should be removed from site.
Quality of life impacts	
Obstruction of access routes/interference with existing movement patterns	Before construction commences, Motuoane must meet individually with each landowner to discuss their movement patterns and needs. As far as possible obstruction of access routes must be avoided. If it cannot be avoided both parties must agree on alternative routes, and



Impacts	Mitigation measures
	Motuoane should carry the cost of implementing the alternatives.
Safety of all road users (vehicle and pedestrians) compromised as a result of additional road users	Before exploration commences, Motuoane must meet individually with each affected landowner to discuss their movement patterns and needs. As far as possible obstruction of access routes must be avoided. If it cannot be avoided both parties must agree on alternative routes, and Motuoane should carry the cost of implementing the alternatives.
Damage to existing infrastructure, including road infrastructure	Any infrastructure including private roads that is damaged by Motuoane (including Contractors) during the exploration activities, it is the responsibility of Motuoane to repair the infrastructure.
Increase in opportunistic crimes	Access to the drilling and survey sites must be controlled. Motuoane must work with the local police and farmer's association and compile a safety plan.
Impacts on mental and physical well-being	
Impacts on safety and security of local residents due to presence of unfamiliar people in the area	Motuoane should work with the local farmer's association to create a farm access protocol for everybody that need to access the properties. All contractors and employees need to wear photo identification cards. Vehicles should be clearly marked as exploration vehicles. Entry and exit points of the site should be controlled. Motuoane should contact the local community police forum and a representative of Motuoane should attend all their meetings while there are active on site.
Impacts on existing services and infrastructure	Notice of any service interruptions must be given at least a day before the interruption takes place – a SMS or e-mail system can be used for this purpose.
Loss/change of sense of place due to visual impacts and project activities	Sense of place is defined as an individual's personal relationship with their local environment, both social and natural, which the individual experiences in their everyday daily life (Vanclay et al., 2015). It is therefore difficult to mitigate the impact as it is experienced on a personal level. In general, the mitigation measures suggested in the visual impact assessment and other relevant specialist studies should be adhered to.
Community impacts	
Potential for conflict between local residents and newcomers about economic opportunities	Preference for employment should be given to locals. The procurement policy must be communicated publicly.
Increase in social pathologies such as prostitution, sexually transmitted diseases, teenage pregnancies and alcohol and substance abuse	Toolbox talks should include talks about the impact of promiscuous behaviour. A workforce code of conduct should be developed to maximise positive employee behaviour in the local community and optimise integration.
Health and safety impacts	
Security risks due to potential for theft	Areas where materials are stockpiled must be fenced. Access to the site should be controlled.



Impacts	Mitigation measures
Fire and explosion hazard is hazardous substances is not managed properly	Motuoane must appoint a health and safety officer as legally required. Hazardous substances should be managed as legally required. Firebreaks and firefighting equipment should be in place. Motuoane should join the local firefighting association.
Potential health risks to people and animals if waste (including sewage) is not managed properly (pests e.g. rodents)	Motuoane must develop a waste management strategy and employ an environmental officer that oversees all the environmental aspects of the project. There must be a formal procedure in place on how to report incidents to ensure records of all grievances are kept. The farmers should have the contact details of the environmental officer and report any environmental incidents to him.
Distribution of invasive alien species outside the project area can impact on existing land uses and be an additional financial burden on land owners	Motuoane should employ an environmental officer that oversees all the environmental aspects of the project. There must be a formal procedure in place on how to report incidents to ensure records of all grievances are kept. The farmers should have the contact details of the environmental officer and report any environmental incidents to him. If a farmer reports any invasion of alien species as a result of Motuoane activities to the environmental manager, he should act immediately to ensure the invasion does not spread further.
CLOSURE AND REHABILITATION PHASE	
Economic impacts	
Temporary unskilled and semi-skilled employment opportunities available	Recruitment should be focussed in the local area of influence and preference should be given to local people. It is very likely that skilled labour will be available in the area due to the presence of the mines.
Potential to use local service providers and contribute directly to local economy	Local service providers must be used as far as possible. A percentage of goods as determined by Motuoane and the relevant stakeholders must be procured locally.
Impacts on livelihoods	
Distribution of alien invasive species outside the project area can impact on existing land uses and be an additional financial burden on land owners	Motuoane should employ an environmental officer that oversees all the environmental aspects of the project. There must be a formal procedure in place on how to report incidents to ensure records of all grievances are kept. The farmers should have the contact details of the environmental officer and report any environmental incidents to him. If a farmer reports any invasion of alien species as a result of Motuoane activities to the environmental manager, he should act immediately to ensure the invasion does not spread further. If any damage was done as a result of their activities, Motuoane should carry the cost of rehabilitation and compensate the farmer for his losses.
Impacts on mental and physical well-being	
Increase in social licence to operate due to management of nuisance impacts	This is a positive impact and will occur if Motuoane implements the suggested mitigation measures.
Impacts on safety and security of	Motuoane should work with the local farmer's association to create a



Impacts	Mitigation measures
local residents due to presence of unfamiliar people in the area	farm access protocol for everybody that need to access the properties. All contractors and employees need to wear photo identification cards. Vehicles should be clearly marked as construction vehicles. Entry and exit points of the site should be controlled. Motuoane should contact the local community police forum and a representative of Motuoane should attend their meetings while they are active on site.



8 Detailed plan of study for the EIA and EMP

In terms of the way forward, it is believed that a participatory approach is the best way to approach social impact assessment in the South African context. The World Bank Social Standards, Equator Principles, International Principles for Social Impact Assessment and the SIA Guidance document published by the IAIA will be applied in the study. It must be noted that international standards and principles will be adapted to ensure that it can be applied in the local social context. The methodology proposed focuses on involving the affected public in the research and planning where it is realistically possible and executable. Different methodologies will be utilised to ensure the affected communities are consulted in the way that is most appropriate to the community.

The following activities will form part of the process forward:

- Fieldwork will be conducted to obtain additional information and communicate with key stakeholders. Key stakeholders are likely to include:
 - Authorities: local municipalities that fall in the project area.
 - Affected parties: communities and individuals that will be affected by the project.
 - Interested parties: local business in the area, community-based organisations and non-governmental organisations within the affected communities, trade unions, and political groups.
- Methodologies will include in-depth interviews, participatory rural appraisal, in-the-moment discussion groups, focus groups and immersions. Field notes will be kept of all interviews and focus groups. Initial meetings have been conducted.
- An interview schedule might be utilised instead of formal questionnaires. An interview schedule consists of a list of topics to be covered, but it is not as structured as an interview. It provides respondents with more freedom to elaborate on their views.



- The final report will focus on current conditions, providing baseline data. Each category will discuss the current state of affairs, but also investigate the possible impacts that might occur in future. The impacts identified in the scoping report will be revisited and rated accordingly. New impacts that have not been identified will be added to the report. Recommendations for mitigation will be made at the end of the report.
- The SIA process will have a participatory focus. This implies that the SIA process will focus strongly on including the local community and key stakeholders.
- The public consultation process needs to feed into the SIA.
- Impacts will be rated according to significance (severity), probability, duration, spatial extent, and stakeholder sensitivity.

Information obtained through the public processes will inform the writing of the final SIA and associated documents.

9 Conclusion

The aim of this report is to give a baseline description of the social environment and to identify preliminary impacts to be used in the scoping phase of the Environmental Impact Assessment. A more in-depth assessment of social impacts and possible mitigation measures will be possible once further stakeholder consultation has taken place. A number of potential impacts has been identified. None of these possible impacts is seen as a fatal flaw in the possible successful execution of the proposed project, but this can only be confirmed once fieldwork has been done and the potential impacts have been finalised and assessed. Most of the potential impacts can be mitigated. The importance of addressing the potential impacts as early in the project cycle as possible must be underlined, since failure to do so may result in the development of risks and an exponential increase in project cost.



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