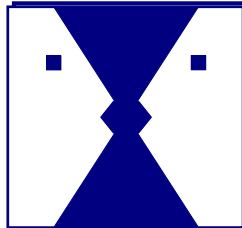


Proposed Amendments: Bakubung Platinum Mine

Social Impact Assessment



Prepared by:

Equispectives Research & Consulting Services

Contact person: Dr Ilse Aucamp

Prepared for:
Knight Piésold

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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 social and economic impacts for the Bakubung Platinum Mine's proposed amendments.

The receiving environment for the project is located in Ward 28 of the Moses Kotane Local Municipality (MKLM) that falls under the Bojanala Platinum District Municipality in the North West Province. The area is under the traditional authority of the Bakubung Ba Ratheo. Given the location of the mine, Wards 13, 14 and 30 of the Moses Kotane LM and Wards 1 and 2 of the Rustenburg Local Municipality (RLM) have also been included in the analysis. The area is predominantly rural with predominantly traditional land ownership. The Sun City resorts and the Pilanesberg Game Reserve are in the area.

The main economic sectors in the Moses Kotane municipal area are tourism, manufacturing, agriculture and mining. Besides Pilanesberg there are a number of smaller nature reserves in the area.

The majority of the population in the study area belong to the Black population group, except in Ward 13 and 14 where the Pilanesberg Game Reserve and the Sun City resorts are located and where there are some White, Indian and Coloured residents as well. In terms of age, the population is relatively young, with more than two fifths of the population aged 24 years or younger (except in Ward 13 and 14, where the population is slightly older). In most of the wards the population's sex distribution is more or less equal with a bias towards males in Wards 1 and 2 of the RLM and Ward 13 of the MKLM.

Setswana is the home language of most residents in the study area and there are differences in the language profiles of the different wards. In some wards there is a relatively large proportion of people with isiZulu as home language.

Education levels are low in general and in most areas about 60% of the population has only completed up to some secondary education. Education levels tend to be higher



in Ward 13 that include the Pilanesberg Game Reserve and the residential area at the entrance of Sun City. Annual household income levels are low in most the areas, except in Ward 13. Based on annual household income, a large proportion of households are under the food poverty line or in very close proximity of the poverty line. In the MKLM both the number of poor people as well as the intensity of poverty have increased more than in the surrounding areas.

Most households in the area have access to piped water either inside their yard or inside the dwelling, with the lowest incidence in the Moses Kotane municipal area (excluding Ward 13). Most households have access to electricity, but sanitation remains a challenge with most households having access to pit toilets (except in Ward 13). Most households have refuse removed by a local authority or private company at least once a week.

There is limited access to social infrastructure such as schools, clinics and recreational facilities in the area, but there is a government hospital in the community.

The following key stakeholder groups were identified:

- Government and parastatals
 - North West Province;
 - Bojanala Platinum District Municipality;
 - Moses Kotane Local Municipality;
 - Rustenburg Local Municipality; and
 - Bakubung Ba Ratheo Traditional Authority.
- Civil society
 - Surrounding communities;
 - Private landowners.



- Business
 - Pilanesberg Game Reserve;
 - Local businesses;
 - Sun City Resorts; and
 - Other tourism facilities.

As the project proponent, Bakubung Platinum Mine is also a key stakeholder.

The following social impacts specific to the amendments have been identified during the SIA process:

- Community expectations related to job creation and benefits from the mine
- Dust from social and health perspective
- Skills development
- Job creation during construction and operation
- Positive impact on local economy
- Increase in social ills

The mine is in a rural area known for tourism and close to vast peri-urban settlements. It is not expected that the project will cause a significant influx of people into the area.

The following recommendations are made:

- The mine must continue to invest in their Stakeholder Relations Division, which currently comprises of a Manager and Community Relations Officer;
- The mine must continue to implement a community-friendly external grievance mechanism in conjunction with communities;
- The mine must continue to implement their community relations strategy.



- The mine should continue to put measures in place to ensure the most effective local employment strategy;
- The mine must continue to ensure social requirements as specified in the mitigation measures are included in their contracts with sub-contractors;

The list of recommendations should be included in the environmental authorisation. From a social perspective, there are no fatal flaws and it is recommended that the project proceed.



Declaration of Independence

Equispectives Research and Consulting Services declare that:

- All work undertaken relating to the proposed project were 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 abovementioned 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;
- 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

This report was compiled by Ilse Aucamp and San-Marié Aucamp.

Ilse Aucamp holds a D Phil degree in Social Work obtained from the University of Pretoria in 2015. She also has Masters' 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, human rights and gender impact assessments, social management plans, social and labour plans, social auditing, training and public participation. She advises the Centre for Environmental Rights on social issues and is also on the advisory panel of the SIAhub, an international website aimed at SIA practitioners. She is a co-author of the *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects* document published by the International Association for Impact Assessment published in 2015.

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 10 years of 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 and social research. She is a past council member of the Southern African Marketing Research Association (SAMRA).



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GLOSSARY OF TERMS

Sense of place: Defining oneself in terms of a given piece of land. It is the manner in which humans relate or feel about the environments in which they live.

Social impact: 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.

Social change process: A discreet, observable and describable process that changes the characteristics of a society, taking place regardless of the societal context (that is, independent of specific groups, religions etc.) These processes may, in certain circumstances and depending on the context, lead to the experience of social impacts.

Social Impact Assessment: The processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by these interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment.

Social license to operate: The acceptance and belief by society, and specifically local communities, in the value creation of activities.

Social risk: Risk resulting from a social or socio-economic source. Social risk comprises both the objective threat of harm and the subjective perception of risk for harm.

**LIST OF ABBREVIATIONS**

BPM	Bakubung Platinum Mine
DM	District Municipality
EA	Environmental Authorisation
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
ESOMAR	European Society for Opinion and Marketing Research
FPL	Food Poverty Line
HDSA	Historically Disadvantaged South African
IDP	Integrated Development Plan
LBPL	Lower Bound Poverty Line
LM	Local Municipality
NEMA	National Environmental Management Act
SAMPI	South African Multidimensional Poverty Index
SAMRA	Southern African Marketing Research Association
SEF	Stakeholder Engagement Forum
SEP	Stakeholder Engagement Plan
SIA	Social Impact Assessment
TSF	Tailings Storage Facility
UBPL	Upper Bound Poverty Line
UNEP	United Nations Environmental Programme
WML	Waste Management License



1 Introduction

The Bakubung Platinum Mine (BPM) is located on the farm Frischgewaagd 96JQ (Portions 3, 4 and 11) near Ledig just south of the Pilanesberg Game Reserve and Sun City in the North West Province. Two reefs are being mined for Platinum Group Elements (platinum, palladium, rhodium and gold) with copper and nickel as by-products.

BPM had to re-optimize its processes in order to make its operations financially viable due to the platinum market price. “In March 2019, the mine informed its shareholders of its decision to implement a new plan that will encompass the development of a 1 million tons per annum (MTPA) mine, with an equivalent 1mtpa processing plant to treat the ore. The smaller mine being operational between 2021 and 2026, thereafter, the mine intends to upscale to the original base case of 3mtpa”.

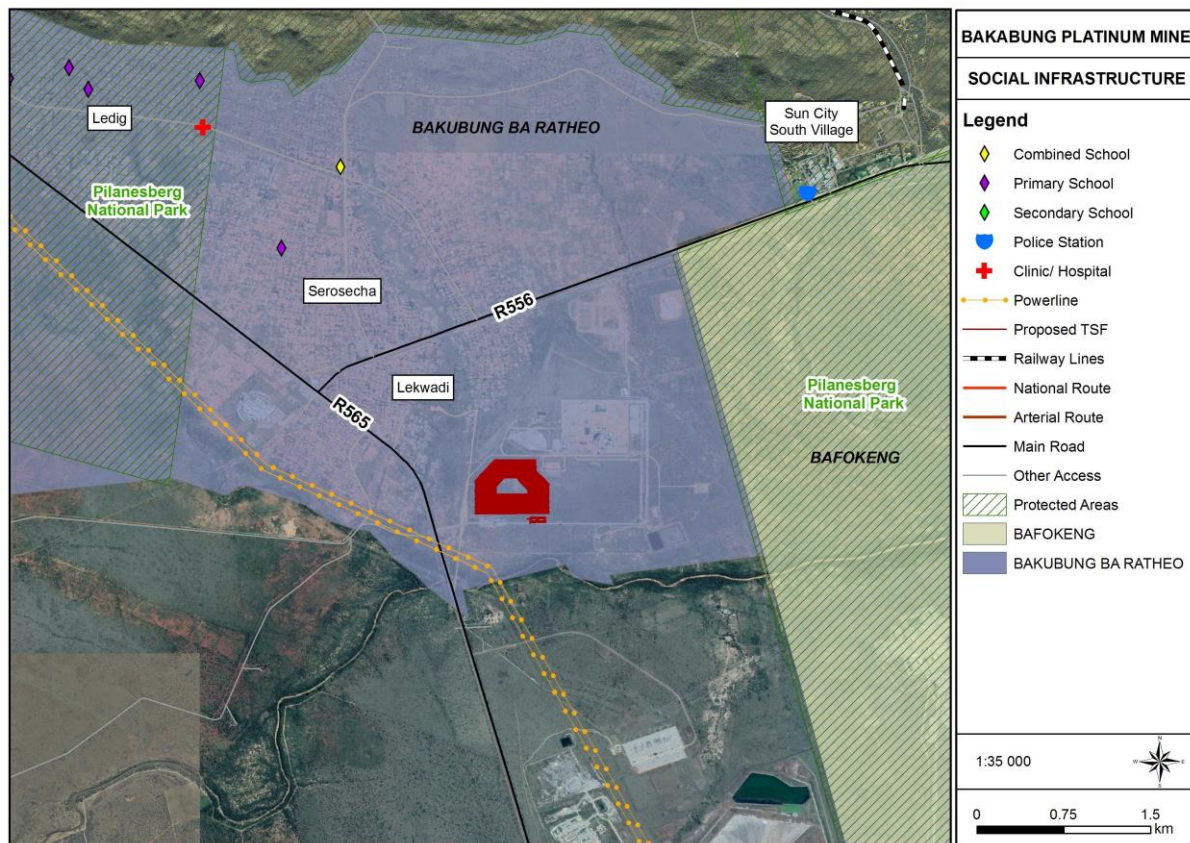
BPM has an existing approved Environmental Authorisation (EA) and Waste Management Licence (WML) that was granted in 2017 that they wish to amend. The specific changes to the project are:

- A change in capacity from 3MT/annum to 1 MT/annum for the initial period of 5 years.; and
- Construction of an additional Tailings Storage Facility (TSF) on the farm Frischgewaagd.

Figure 1 shows the proposed location of the TSF in relation to other BPM infrastructure.



Figure 1: Locality of the proposed TSF in relation to BPM.



The purpose of the Social Impact Assessment (SIA) report is to provide baseline information regarding the socio-economic environment, to identify possible social and economic risks/fatal flaws 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 change processes that may occur as a result of the project; and
- Identification of potential social and socio-economic impacts.

Conducting an SIA is one of the ways in which social risk can be managed. 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.

Knight Piésold was appointed to manage the process for the amendment of the EA and WML for the project, and they appointed Equispectives Research and Consulting Services update the existing SIA that was completed in 2016 to include the proposed amendments. This report represents the findings and recommendations of the social impact assessment.

2 Study Approach

2.1 Information base

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

1. The previous SIA report for this project,
2. Information obtained from various stakeholders participating in the stakeholder engagement forum,
3. A literature review consulting secondary resources (see list provided in the References); and
4. Professional judgement based on experience gained with similar projects.

2.2 Assumptions and limitations

The following assumptions and limitations were relevant:



1. Due to the Covid-19 global pandemic, no initial stakeholder engagement could be conducted. The social scientists attempted to contact stakeholders via e-mail and telephonically, but this yielded insignificant results.
2. The social scientist attended the BPM Stakeholder Engagement Forum (SEF) where the project was presented, and stakeholders received feedback on existing activities of BPM. SEF Members also had the opportunity to participate and share concerns during the meeting.
3. The social environment constantly changes and adapts to change, and external factors outside the scope of the project can offset social changes, for example changes in local political leadership or economic conditions. It is therefore difficult to predict all impacts to a high level of accuracy, although care has been taken to identify and address the most likely impacts in the most appropriate way for the current local context within the limitations.
4. Social impacts can be felt on an actual or perceptual level, and therefore it is not always straightforward to measure the impacts in a quantitative manner.
5. Social impacts commence when the project enters the public domain. Some of these impacts will occur irrespective of whether the project continues or not. These impacts are difficult to mitigate and some would require immediate action to minimise the risk.
6. There are different groups with different interests in the community, and what one group may experience as a positive social impact, another group may experience as a negative impact. This duality will be pointed out in the impact assessment phase of the report.
7. Social impacts are not site-specific, but take place in the communities surrounding the proposed development.



2.3 Methodology

Scientific social research methods were used for this assessment. In order 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.

2.3.1 Defining of concepts

The theoretical model used for this impact assessment was developed by Sloodweg, Vanclay and Van Schooten and presented in the International Handbook of Social Impact Assessment (Vanclay & Becker, 2003). This model identifies pathways by which social impacts may result from proposed projects. The model differentiates between social change processes and social impacts, where the social change process is the pathway leading to the social impact. Detail of how the model works is not relevant to this study, but it is important to understand the key concepts, which will be explained in the following paragraphs.

Social change processes are set in motion by project activities or policies. A social change process is a discreet, observable and describable process that changes the characteristics of a society, taking place regardless of the societal context (that is, independent of specific groups, religions etc.) These processes may, in certain circumstances and depending on the context, lead to the experience of social impacts (Vanclay, 2003). If managed properly, however, 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). Social change processes can be measured objectively, independent of the local context. Examples of social change processes are an increase in the population, relocation, or the presence of temporary workers. Social change processes relevant to the project will be discussed before the possible social impacts will be investigated.

For the purpose of this report, the following social change process categories were investigated:

- Demographic processes;
- Economic processes;
- Geographic processes;



- Institutional and legal processes;
- Emancipatory and empowerment processes;
- Socio-cultural processes; and
- Other relevant processes.

The International Association for Impact Assessment (2003) states that Social Impact Assessment includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by these interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment. The Inter-organizational Committee on Principles and Guidelines for Social Impact Assessment (2003) defines Social Impact Assessment in terms of “efforts to assess, appraise or estimate, in advance, the social consequences likely to follow from proposed actions”.

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).

For the purpose of this SIA, the following Social Impact Assessment categories were 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; and
- Gender impacts.

Relevant criteria for selecting significant social impacts included the following:

- Probability of the event occurring;
- Number of people that will be affected;
- Duration of the impact;
- Value of the benefits or costs to the impacted group;
- Extent to which identified social impacts are reversible or can be mitigated;
- Likelihood that an identified impact will lead to secondary or cumulative impacts;
- Relevance for present and future policy decisions;
- Uncertainty over possible effects; and
- Presence or absence of controversy over the issue.

For the purpose of this study, the model was adapted to suit the South African context, and where processes and impacts were not relevant to the study, it was omitted. Each category has a number of sub-categories, which also have been investigated. The Equator Principles, International Finance Corporation Performance Standards and World Bank Environmental, Health and Safety guidelines were consulted in the writing of this report and the mitigation suggested adheres to these requirements.



2.3.2 Literature study

A literature search was undertaken to obtain secondary data for the baseline description of the socio-economic environment. The information in this report was acquired via statistical data obtained from Statistics South Africa, SIA literature (see References), previous SIA studies conducted in the area and information from reputable sources on the World Wide Web.

2.3.3 Research approach

Traditionally there are two approaches to SIA, a technical approach and a participatory approach. A technical approach entails that a scientist remains a neutral observer of social phenomena. The role of the scientist is to identify indicators, obtain objective measures relevant to the situation and provide an expert assessment on how the system will change (Becker, Harris, Nielsen & McLaughlin, 2004). A participatory approach uses the knowledge and experiences of individuals most affected by the proposed changes as the basis for projecting impacts. In this case the role of the scientist is facilitator of knowledge sharing, interpretation and reporting of impacts (Becker et al, 2004).

The findings presented in this report are based on limited primary and extensive secondary (desk) research. Quantitative data were used for the secondary research.

Qualitative research for the study will be conducted during a later phase of the study. This will be done to supplement the quantitative data that has already been collected. The layperson sometimes criticizes qualitative research as “subjective” or “not really that scientific”. For this reason, it is vital to understand the distinction between qualitative and quantitative research and their respective areas of application.

Qualitative research as a research strategy is usually characterised by the inference of general laws from particular instances, forms theory from various conceptual elements, and explains meaning (David & Sutton, 2004). It usually emphasises words rather than quantification in the collection and analysis of data. Data collection takes place by using methods such as unstructured or semi-structured interviews, focus groups, observations, etc. Data is not recorded in any standardised coding format, but are usually reported according to themes. Qualitative data express information about feelings, values and attitudes. This approach is



used where insight and understanding of a situation is required (Malhotra, 1996). Participants are selected based on their exposure to the experience or situation under review. The aim of qualitative research is to understand, not to quantify and as such it is extremely suitable for assessing social impacts. A potential impact has to be understood before it can be assessed appropriately.

Quantitative research as a research strategy usually makes inferences of particular instances by reference to general laws and principles and tends to emphasize what is external to or independent of the mind (objective) and incorporates a natural science model of the research process (David & Sutton, 2004). This usually makes it easier for a person with a natural or physical sciences background to relate to. This approach usually emphasises quantification in the collection and analysis of data. Data collection takes place by using methods such as structured questionnaires and data is recorded in a numeric or some other standardised coding format. Data is expressed in numerical format and statistical techniques are usually used to assist with data interpretation. This approach is used when information needs to be generalised to a specific population and participants are usually selected using probability sampling techniques (although non-probability methods can be used depending on the characteristics of the target population).

2.3.4 Ethical issues

The fact that human beings are the objects of study in the social sciences brings unique ethical problems to the fore. Every individual has a right to privacy which is the individual's right to decide when, where, to whom, and to what extent his or her attitudes, beliefs and behaviour will be revealed (Strydom, 2002). Every person interviewed for the purposes of the report has been ensured that although the information disclosed will be used, their names will not be disclosed without their permission. Therefore, to protect those consulted and to maintain confidentiality, the people that were interviewed are not named in the report. This is in line with international as well as national research practice such as the ESOMAR and SAMRA codes of conduct.



3 Baseline description of the receiving social 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 behaviour, 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

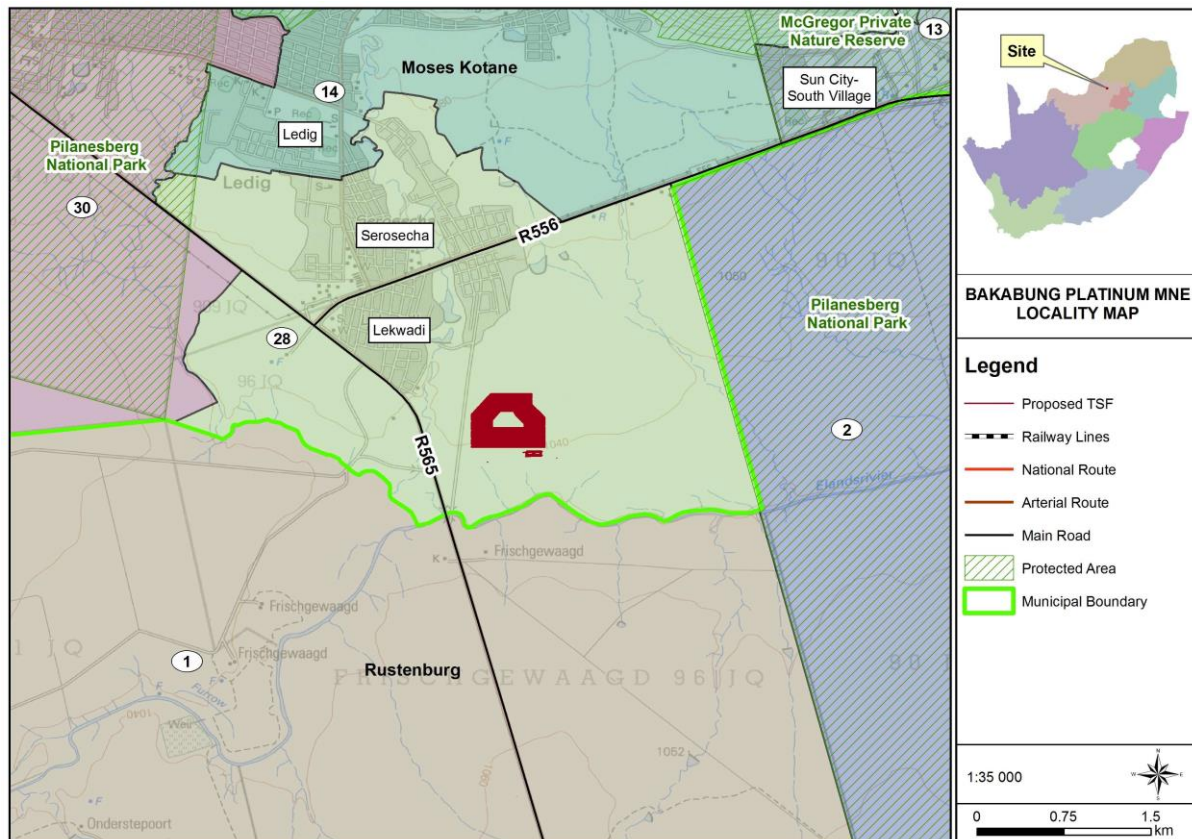


context that will focus on the identity and history of the area as well as a description of the population of the area based on a number of demographic, social and economic variables.

3.1 Description of the area

The proposed project is located in Ward 28 of the Moses Kotane Local Municipality (MKLM) that falls under the Bojanala Platinum District Municipality in the North West Province (Figure 2) and falls in an area under the traditional authority of the Bakubung Ba Ratheo. It is close to the border with the Rustenburg Local Municipality (RLM). Wards 13, 14 and 30 of the MKLM and Wards 1 and 2 of the RLM have also been included in the analysis to provide a broader social context. For the baseline description of the area, data from Census 2011, Community Survey 2016, municipal IDP's and websites were used.

Figure 2: Location of the proposed amendments to BPM in municipal context.



The **North West Province** is located in the north of South Africa and borders Botswana. It covers an area of 104 882 km² (www.municipalities.co.za). The capital of the province is Mahikeng, that is located near the Botswana border, and forms a single urban area with the



neighbouring town of Mmabatho. Other major cities and towns include Potchefstroom, Klerksdorp, Brits, Rustenburg and Lichtenburg.

Mining is the major contributor to the provincial economy and represents almost a quarter of South Africa's mining industry as a whole. The Rustenburg and Brits districts produce more platinum than any other single area in the world. The province also produces a quarter of South Africa's gold, as well as granite, marble, fluorspar and diamonds.

The most important crops grown in the province are maize and sunflowers and the province is well known for cattle farming. Around Rustenburg and Brits there are fertile, mixed crop farming land.

North West has a number of major tourist attractions such as Sun City, the Pilanesberg Game Reserve, the Madikwe Reserve and the Rustenburg Nature Reserve.

The province is divided into four districts, namely Bojanala Platinum, Dr Kenneth Kaunda, Dr Ruth Segomotsi Mompati and Ngaka Modiri Molema.

The **Bojanala Platinum District Municipality** covers an area of 18 333 km² (www.municipalities.co.za) and is seated in Rustenburg. Other cities and towns in the district are Brits, Derby, Hartbeesfontein-A, Hartbeespoort, Koster, Madikwe, Marikana, Moinooi, Phatsima, Swartruggens and Tlhabane. The district is divided into five local municipalities, namely Kgetlengrivier, Madibeng, Moses Kotane, Moretele and Rustenburg.

The district contributed 52.14% of the North West Province's GDP in 2016 (Bojanala Platinum DM IDP 2019/20) The main economic sectors are mining, community services, finance, trade, transport and manufacturing.

The **Moses Kotane Local Municipality** covers an area of 5 726 km² (www.municipalities.co.za) and is the largest of the five municipalities that make up the district. Large portions of the municipal area are under traditional leadership. There are 107 villages and two formal towns (Mogwase and Madikwe) (Moses Kotane LM Final IDP 2017-2022). The municipality's economy is owed to its location within the major tourism and mining belt of the North West Province, Pilanesberg and Sun City. The main economic sectors are tourism, manufacturing, agriculture and mining. The main tourist areas are the Pilanesberg Nature Reserve (including



Kwa Maritane, Manyane and Bakgatla) and the Sun City / Lost City complex. Other smaller nature reserves include the Madikwe and Impala, Game Reserves and other tourism facilities include the Molatedi Dam, Madikwe Dam, the Roodeval farm and the Kolotwane River Valley. The Pilanesberg International Airport is located within the municipal area.

The **Rustenburg Local Municipality** covers an area of 3 416 km² (www.municipalities.co.za). Main cities and towns in the area include Rustenburg, Hartbeesfontein-A, Marikana, Phatsima and Tlhabane. The main economic sectors are mining and trade. The RLM was the greatest contributor to the GDP of the Bojanala DM in 2016 (Bojanala Platinum DM IDP 2019/20). The main economic sectors are mining and trade. The presence of mining activities within the municipal area has largely determined the economic, social and physical characteristics of Rustenburg. Underground mining dominates although open-cast mining also takes place. Commodities include chrome, platinum, tin, lead, marble, granite and slate.

Commercial farming in the area ranges from citrus, vegetable farming and live-stock farming. In some rural parts of the municipality subsistence farming of maize, sunflowers and vegetables are practised (RLM IDP Review 2019/20). Agriculture has turned into a less preferred source of income due to trade-offs to other activities such as mining and development, resulting in the loss of high potential agricultural land.

The main local tourism attractions in the region are closely linked to its natural assets. Tourism plays an increasingly important role within the municipal area. Primary tourism areas and facilities located in the municipal area includes:

- Rustenburg Town;
- Kgaswane Game Reserve;
- Vaalkop Dam Nature Reserve;
- Kroondal;
- Bafokeng Sport Palace; and Buffelspoort Dam.

Census 2011 shows the proportions of people and households living in urban areas, areas under traditional authority and on farms in the area ([Table 1](#)). The majority of persons and households in the Moses Kotane LM live in areas under traditional authority. In Wards 28 (where BPM is located) and 30 of the MKLM and Ward 2 of the RLM the entire population live in areas under traditional authority.

**Table 1: Geotypes (source: Census 2011, persons and households, shown in percentage)**

Area	Urban		Tribal/Traditional		Farm	
	Persons	Households	Persons	Households	Persons	Households
North West Province	44.3	46.5	46.3	44.3	9.5	9.2
Bojanala Platinum DM	37.5	39.6	56.2	53.5	6.3	6.9
Rustenburg LM	68.0	66.5	30.0	32.0	2.0	1.5
Ward 1	50.7	41.9	35.5	46.7	13.8	11.4
Ward 2	0.0	0.0	100.0	100.0	0.0	0.0
Moses Kotane LM	7.4	8.5	92.4	91.2	0.3	0.3
Ward 13	44.3	37.0	51.4	58.4	4.3	4.6
Ward 14	21.5	12.5	78.5	87.5	0.0	0.0
Ward 28	0.0	0.0	100.0	100.0	0.0	0.0
Ward 30	0	0	100	100	0	0

3.2 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 North West Province, Bojanala Platinum District Municipality, Moses Kotane Local Municipality and the Rustenburg Local Municipality. Wards 1 and 2 of the Rustenburg Local Municipality and Wards 13, 14, 28 and 30 of Moses Kotane Local Municipality are included on a ward level. The data used for the socio-economic description was sourced from Census 2011. Census 2011 was a de facto census (a census in which people are enumerated according to where they stay on census night) where the reference night was 9-10 October 2011. The results should be viewed as indicative of the population characteristics in the area and should not be interpreted as absolute.

In some municipalities the ward boundaries have changed in 2016 and StatsSA made Census 2011 data available that is grouped according to the 2016 boundaries.

The following points regarding Census 2011 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 have to 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 higher 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 taken into account that the time period between the first two censuses is of five years and that between the second and third census is of ten years. Although Census captures information at one given point in time, the period available for an indicator to change is different.

Where available, the Census 2011 data will be supplemented with data from Community Survey 2016. It must be noted that the Community Survey 2016 data is not available on ward level.

3.2.1 Population and household sizes

According to the Community Survey 2016, the population of South Africa is approximately 55.7 million and has shown an increase of about 7.5% since 2011. The household density for the country is estimated on approximately 3.29 people per household, indicating an average household size of 3-4 people (leaning towards 3) 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 in the Rustenburg LM ([Table 2](#)), much higher than the national average, while the population in the Moses Kotane LM stayed more or less the same. Population density refers to the number of people per square kilometre. In



the study area the population density has increased since 2011, except for in the Moses Kotane LM where it stayed more or less the same.

Table 2: Population density and growth estimates (sources: Census 2011, Community Survey 2016)

Area	Size in km ²	Population 2011	Population 2016	Population density 2011	Population density 2016	Growth in population (%)
North West Province	104,882	3,509,953	3,748,436	33.47	35.74	6.79
Bojanala Platinum DM	18,333	1,507,505	1,657,148	82.23	90.39	9.93
Moses Kotane LM	5,726	242,554	243,649	42.36	42.55	0.45
Rustenburg LM	3,416	549,575	626,522	160.88	183.41	14.00

The number of households in the study area has increased on all levels (Table 3), while the average household size has shown a decrease on all levels. This means there are more households, but with less members per household.

Table 3: Household sizes and growth estimates (sources: Census 2011, Community Survey 2016)

Area	Households 2011	Households 2016	Average household size 2011	Average household size 2016	Growth in households (%)
North West Province	1,062,015	1,248,766	3.30	3.00	17.58
Bojanala Platinum DM	501,696	611,144	3.00	2.71	21.82
Moses Kotane LM	75,193	80,654	3.23	3.02	7.26
Rustenburg LM	199,044	262,576	2.76	2.39	31.92

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 lowest total dependency ratio is found in Ward 13 (Table 4) while Ward 30 has the highest dependency ratio. Ward 28, where BPM is located, has the second highest dependency ratio but the highest youth dependency ratio. Employed dependency ratio refers to the proportion of people dependent on the people who are employed, and not only those of working age. Wards 28 and 30 have the highest employment ratio.



Table 4: Dependency ratios (source: Census 2011).

Area	Total dependency	Youth dependency	Aged dependency	Employed dependency
North West Province	54.5	45.8	8.7	76.0
Bojanala Platinum DM	46.4	38.7	7.7	71.0
Rustenburg LM	37.9	33.2	4.6	64.3
Ward 1	45.9	40.4	5.4	69.8
Ward 2	42.8	36.9	5.9	66.5
Moses Kotane LM	58.6	46.3	12.3	80.9
Ward 13	29.3	26.3	3.0	63.4
Ward 14	42.8	32.4	10.5	70.1
Ward 28	47.1	42.6	4.5	72.3
Ward 30	51.5	41.9	9.6	76.8

Poverty is a complex issue that manifests itself on economic, social and political levels 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 multidimensionally poor by using the SAMPI's poverty cut-offs (Statistics South Africa, 2014). The poverty headcount has increased on all levels since 2011 (Table 5), but to a greater extent in the Moses Kotane LM.

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 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 has increased on all levels, indicating that households are multi-dimensionally poorer in 2016 than in 2011, particularly in the Moses Kotane LM.



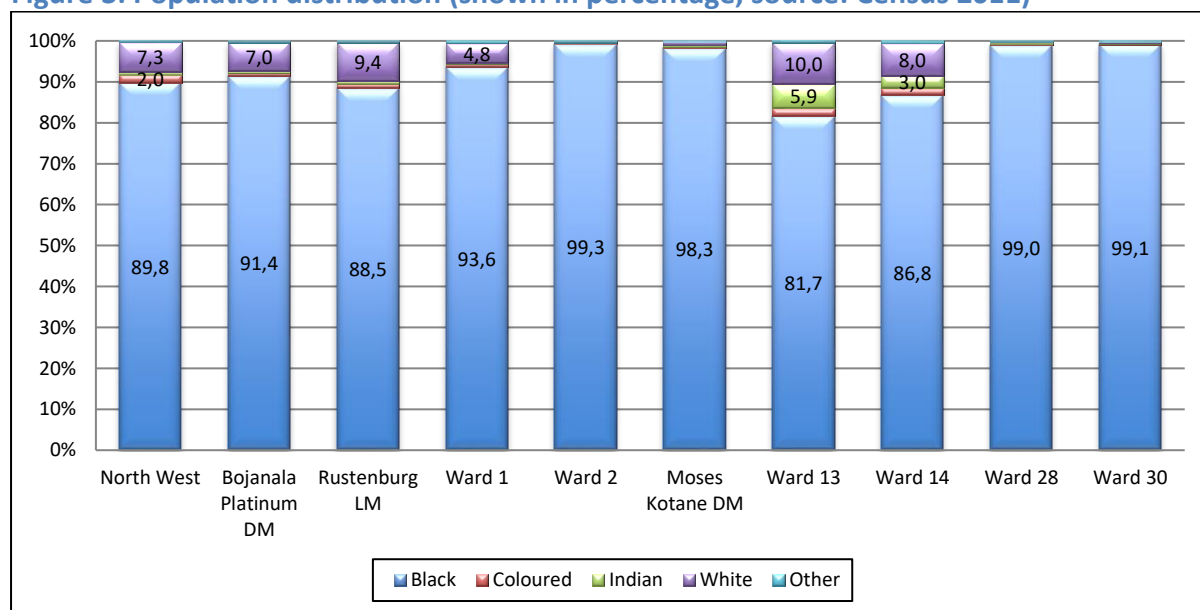
Table 5: Poverty and SAMPI scores (sources: Census 2011 and Community Survey 2016).

Area	Poverty headcount 2011 (%)	Poverty intensity 2011 (%)	SAMPI 2011	Poverty headcount 2016 (%)	Poverty intensity 2016 (%)	SAMPI 2016
North West Province	9.2	42	0.039	8.8	42.5	0.037
Bojanala Platinum DM	8.2	42.1	0.035	8.8	42.9	0.038
Moses Kotane LM	8.3	41.3	0.034	10.6	42.5	0.045
Rustenburg LM	7.2	42.9	0.031	8	44.6	0.036

3.2.2 Population composition, age, gender and home language

In all the wards, except Wards 13 and 14, the majority of the population belongs to the Black population group (Figure 3). The Pilanesberg Game Reserve and the Sun City resorts are located in Wards 13 and 14, and the population composition in these wards are mixed to include people from all population groups.

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



The average age in the study area ranges from about 27 years to 32 years (Table 6). Ward 28 where BPM is located has the lowest average age.

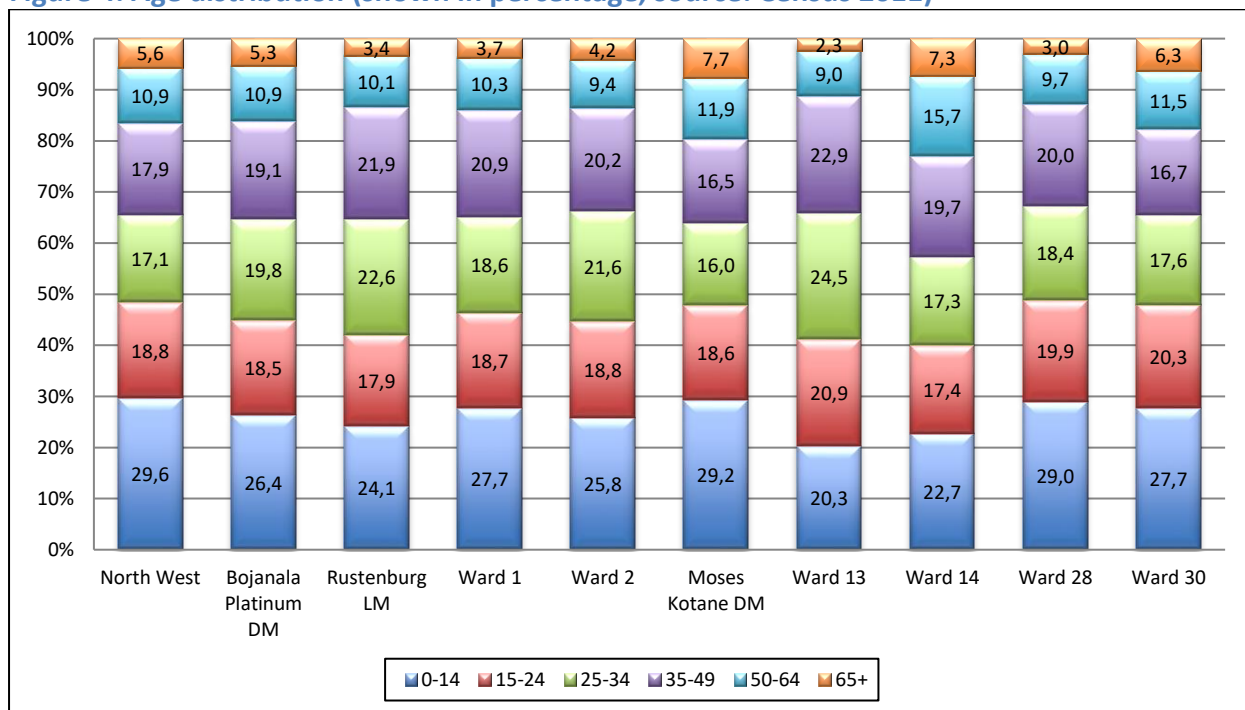


Table 6: Average age (shown in years, source: Census 2011)

Area	Average Age
North West Province	28.33
Bojanala Platinum DM	29.03
Rustenburg LM	28.86
Ward 1	28.10
Ward 2	28.30
Moses Kotane LM	29.49
Ward 13	28.80
Ward 14	32.16
Ward 28	27.07
Ward 30	28.93

More than two fifths of the population in all wards are aged 24 years or younger (Figure 4). Such a young population place a lot of pressure on resources and infrastructure of the area, and a great demand for future infrastructure and creation of livelihoods can be expected.

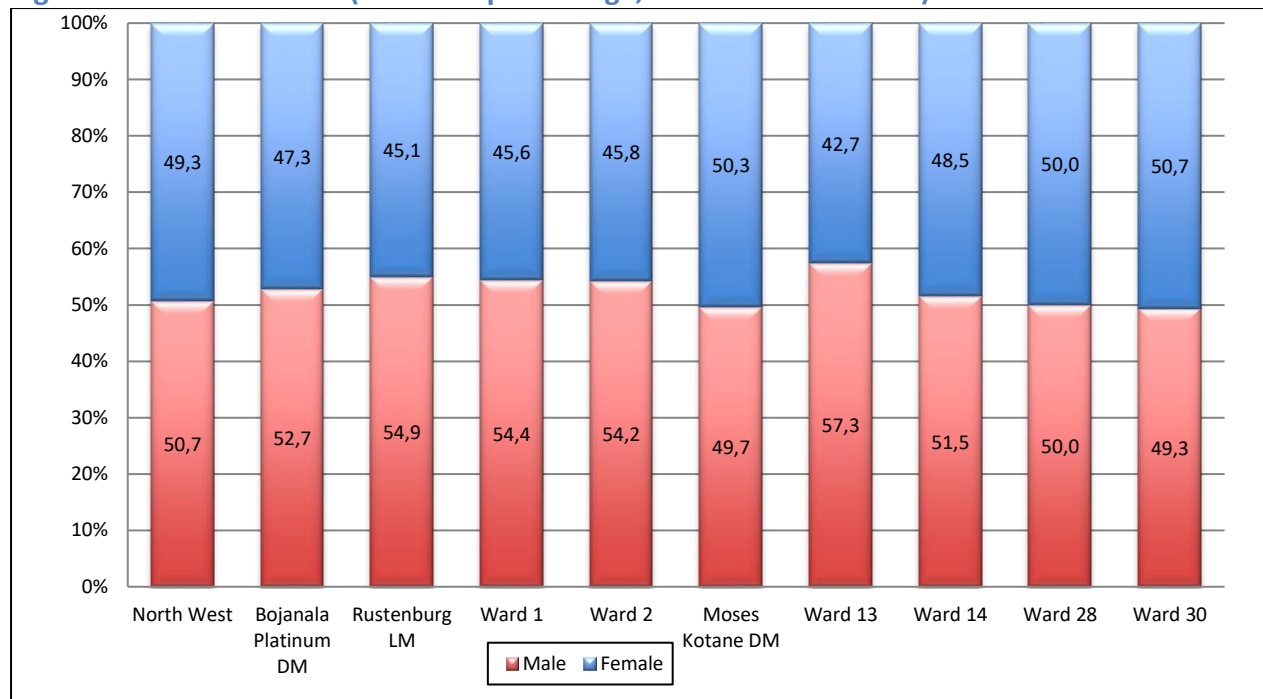
Figure 4: Age distribution (shown in percentage, source: Census 2011)



The sex distribution is more or less equal (Figure 5), except in the Rustenburg LM, Wards 1 and 2 in the Rustenburg LM and Ward 13 of the Moses Kotane LM where the bias is towards males. In mining areas there is often a bias towards males as most mine workers are male and have migrated to the area, with their families still at the area where they come from. Game reserve employees tend to be biased towards males as well.



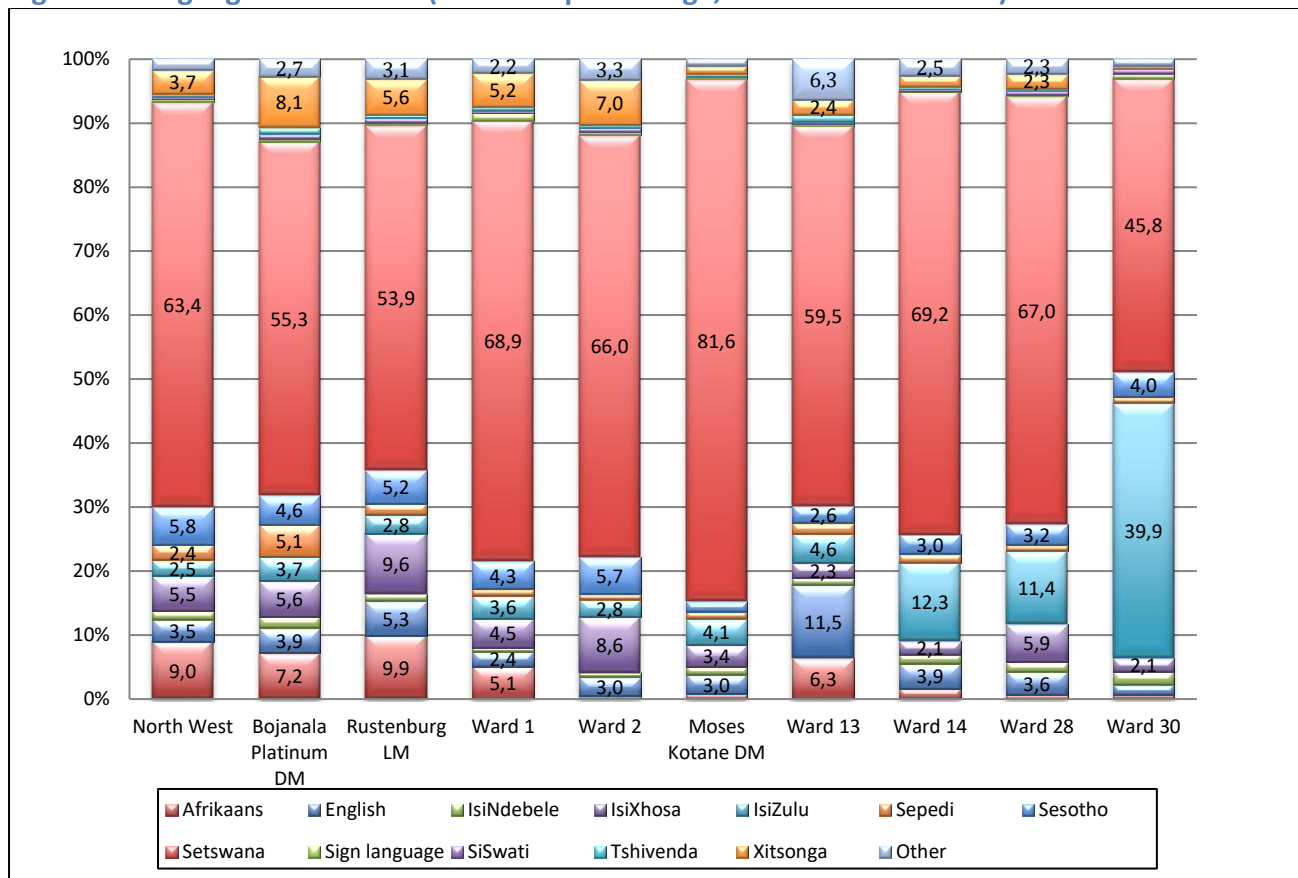
Figure 5: Sex distribution (shown in percentage, source: Census 2011)



Setswana is the home language of most of the residents in the study area (Figure 6). In Ward 30 a large proportion of residents have isiZulu as home language. The language profiles on ward level look different from one another.



Figure 6: Language distribution (shown in percentage, source: Census 2011)

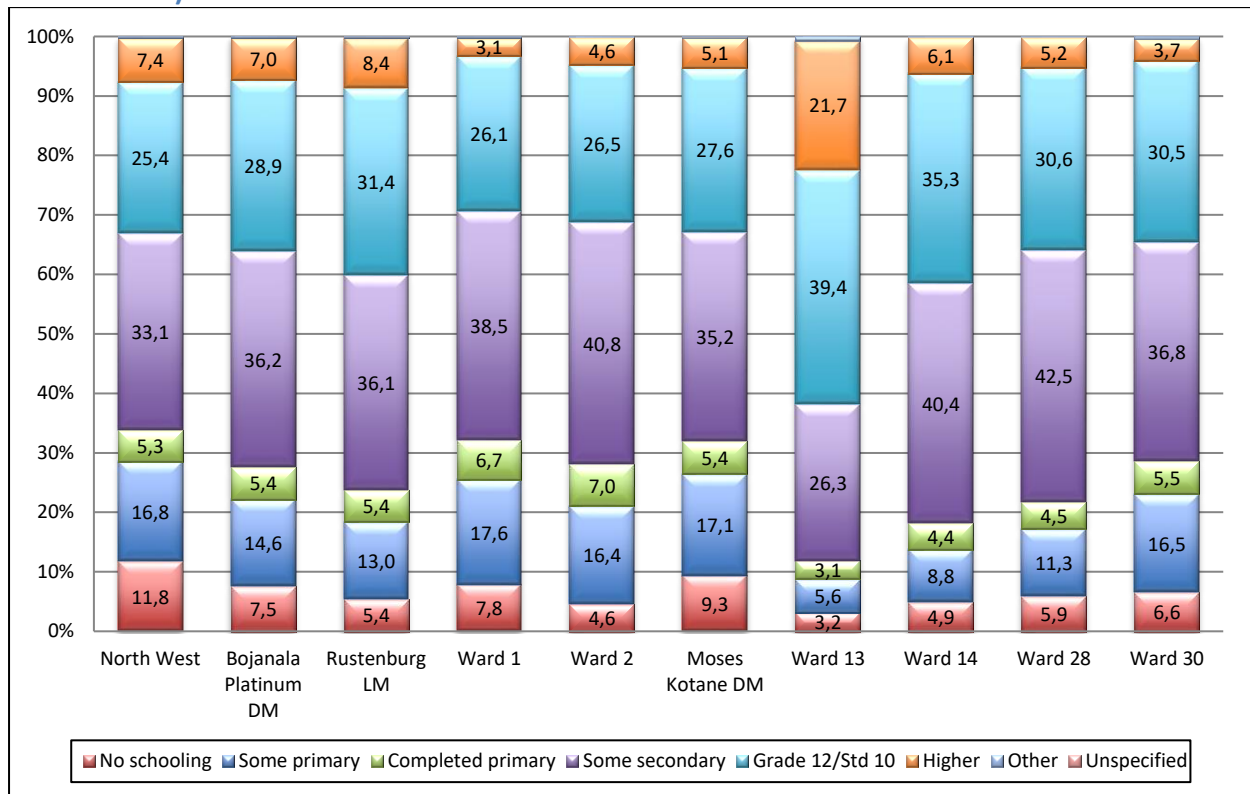


3.2.3 Education

Ward 13 has the highest proportion of people aged 20 years or older with an education higher than Grade 12 (Figure 7). This proportion is much higher than on local, district or provincial level. Literacy levels in the other wards are relatively high with about 60% or more of people aged 20 years or older having an education of some secondary schooling or less. These high levels of illiteracy should be taken into consideration when consulting with communities or farm workers in the study area.



Figure 7: Education profiles (those aged 20 years or older, shown in percentage, source: Census 2011)



3.2.4 Employment, livelihoods and economic activities

The Moses Kotane LM has the highest proportion of people aged between 15 – 65 years that are not employed (Figure 8). Employment levels are the lowest in Wards 28 and 30. Most people who are employed work in the formal sector (Figure 9).



Figure 8: Labour status (those aged between 15 - 65 years, shown in percentage, source: Census 2011)

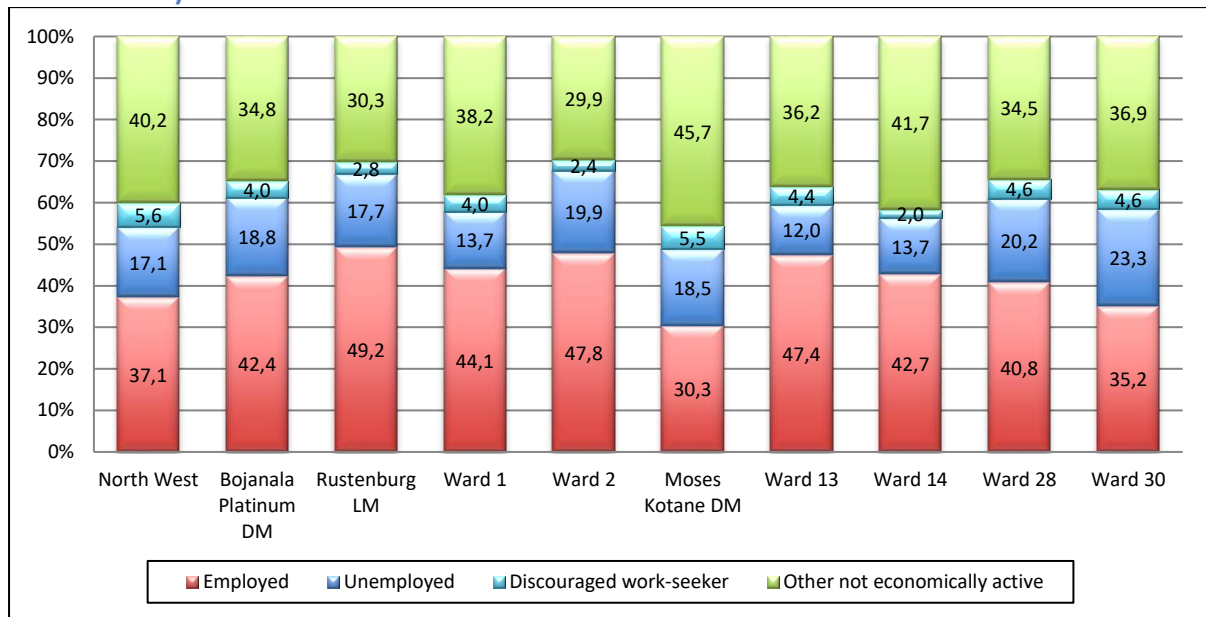
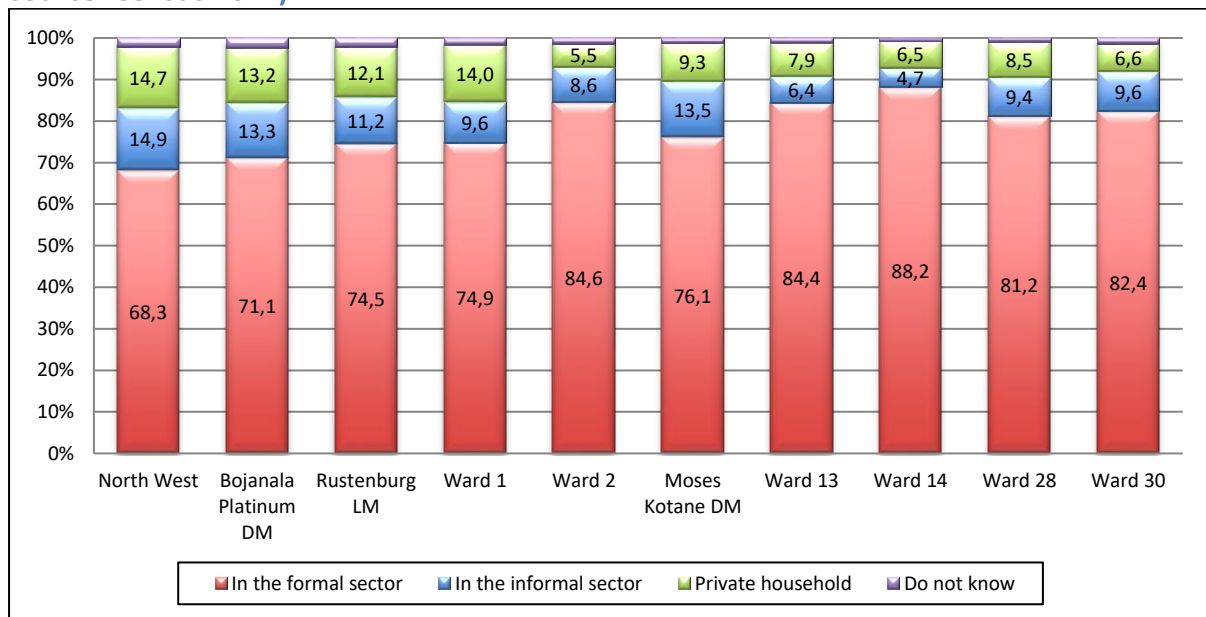


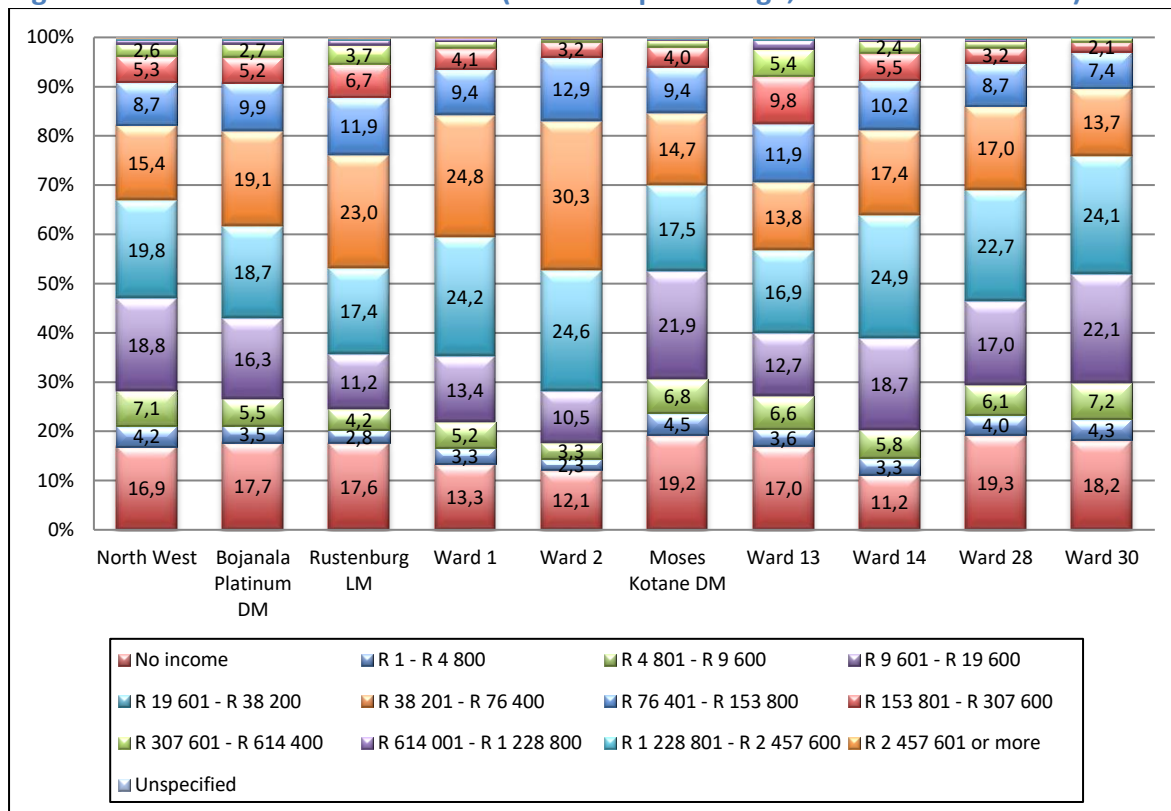
Figure 9: Employment sector (those aged between 15 - 65 years, shown in percentage, source: Census 2011)



Wards 28 and 30 has the highest proportion of people with no annual household income (Figure 10), while Wards 1, 2 and 14 has the lowest proportion. Ward 13 has a much higher annual household income than any of the other wards.



Figure 10: Annual household income (shown in percentage, source: Census 2011)



Statistics South Africa (2015) has calculated the Food Poverty Line (FPL) for the North West Province as R337 per capita per month for 2011 where the FPL is the Rand value below which individuals are unable to purchase or consume enough food to supply them with the minimum per-capita-per-day energy requirement for good health. The FPL is one of three poverty lines, the others being the upper bound poverty line (UBPL) and the lower bound poverty line (LBPL). The LBPL and UBPL both include a non-food component. Individuals at the LBPL do not have enough resources to consumer or purchase both adequate food and non-food items and are forced to sacrifice food to obtain essential non-food items, while individuals at the UBPL can purchase both adequate food and non-food items. The LBPL for the North West Province was R525 per capita per month in 2011 and the UBPL R767 per capita per month respectively. More recent poverty lines than the rebased poverty lines for 2011 are not available. Based on this, a household with four - members needed an annual household income of approximately R17 000 in 2011 to be just above the FPL. When comparing this with the SAMPI data it seems as if there are slightly more households below the poverty lines in the area than who are multidimensionally poor. This is due to the poverty lines using a financial measure and do not take into consideration payment in kind and livelihood



strategies such as subsistence farming. If there were to be converted into a Rand value, the poverty line picture may have a closer resemblance to the SAMPI data.

3.2.5 Housing

In Wards 2, 14, 28 and 30 most people live in areas classified as traditional residential (Figure 11), while the profile for Ward 13 looks slightly different and include relatively large formal residential and collective living quarters areas. Most households live in houses or brick structures on separate stands or yards (Figure 12). In Ward 28 almost half of the households live in informal dwellings that are either in an informal settlement or in someone’s backyard.

Figure 11: Enumeration area types (shown in percentage, source: Census 2011)

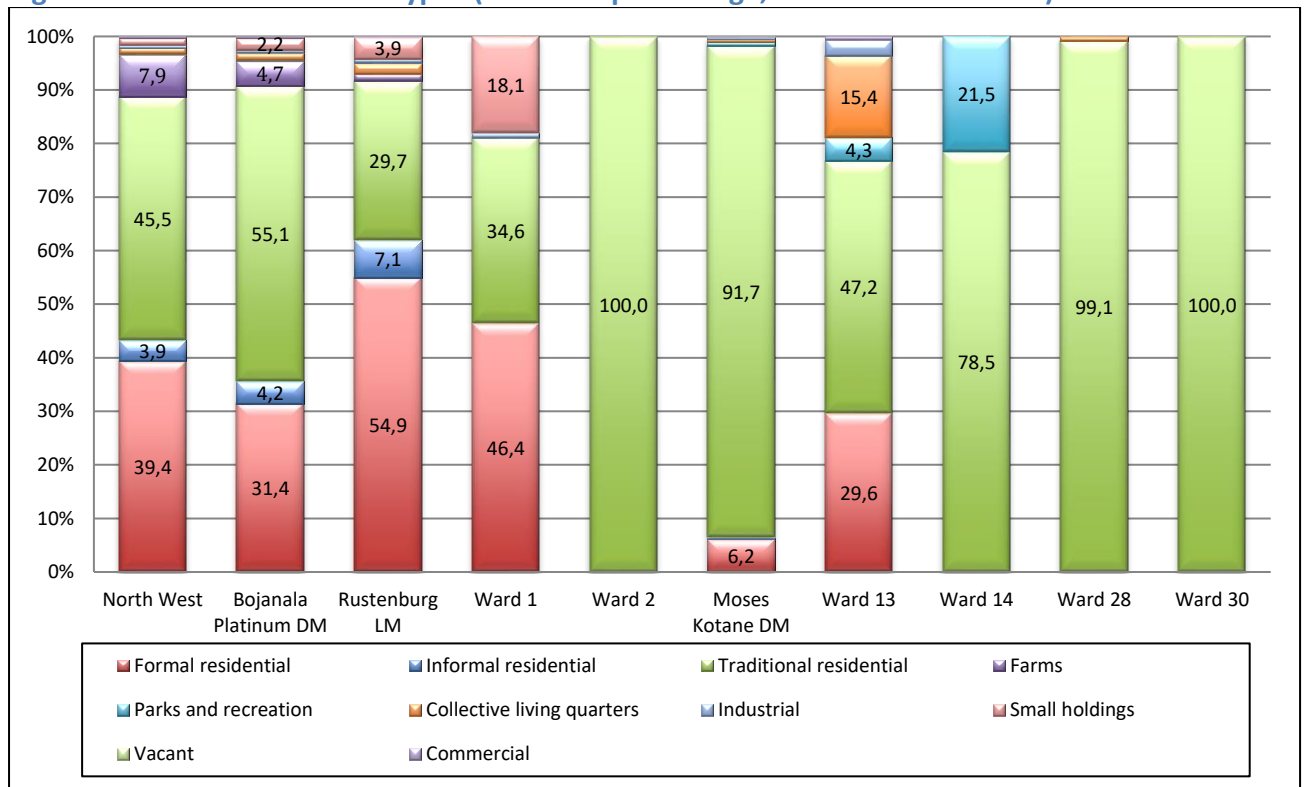
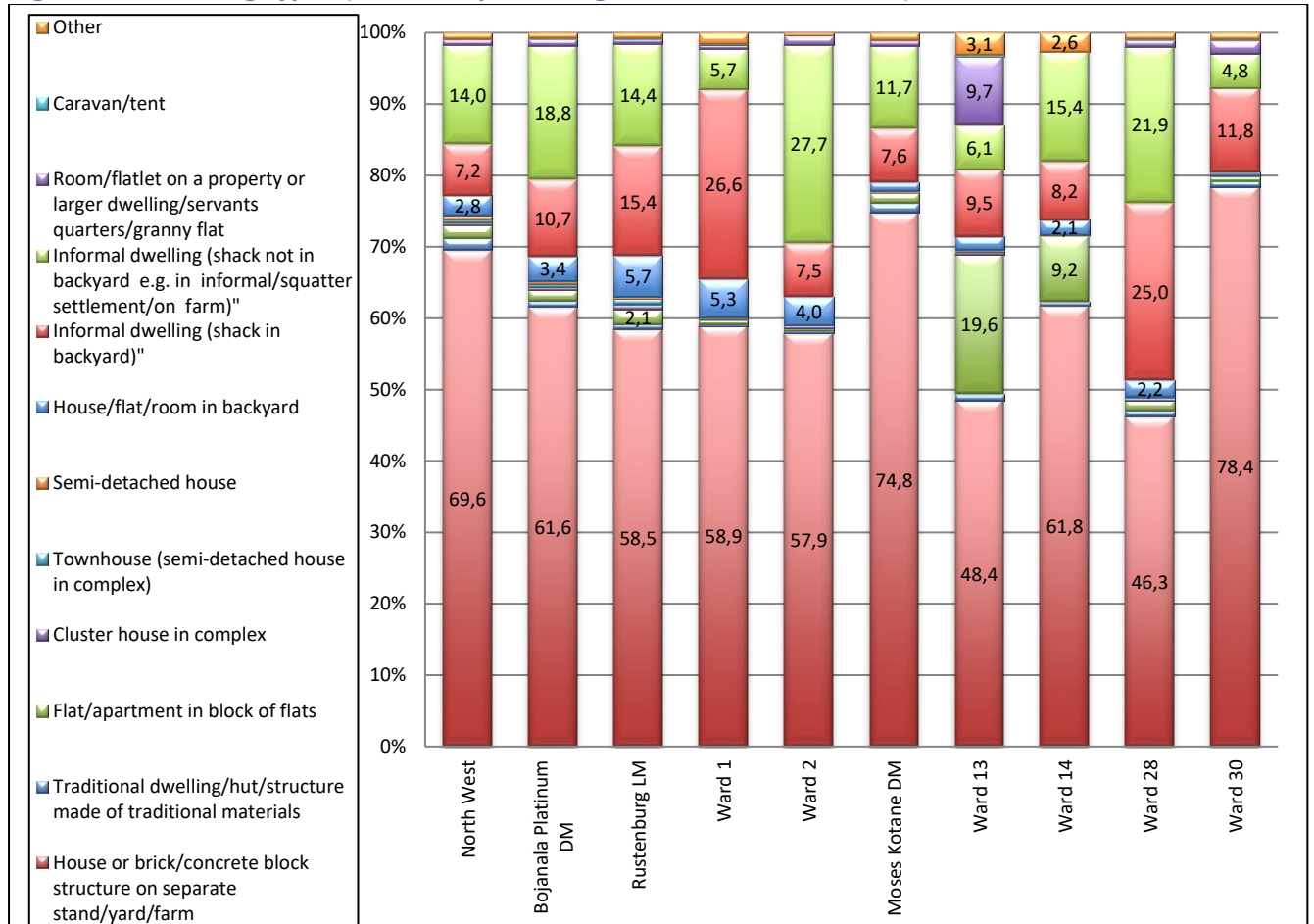




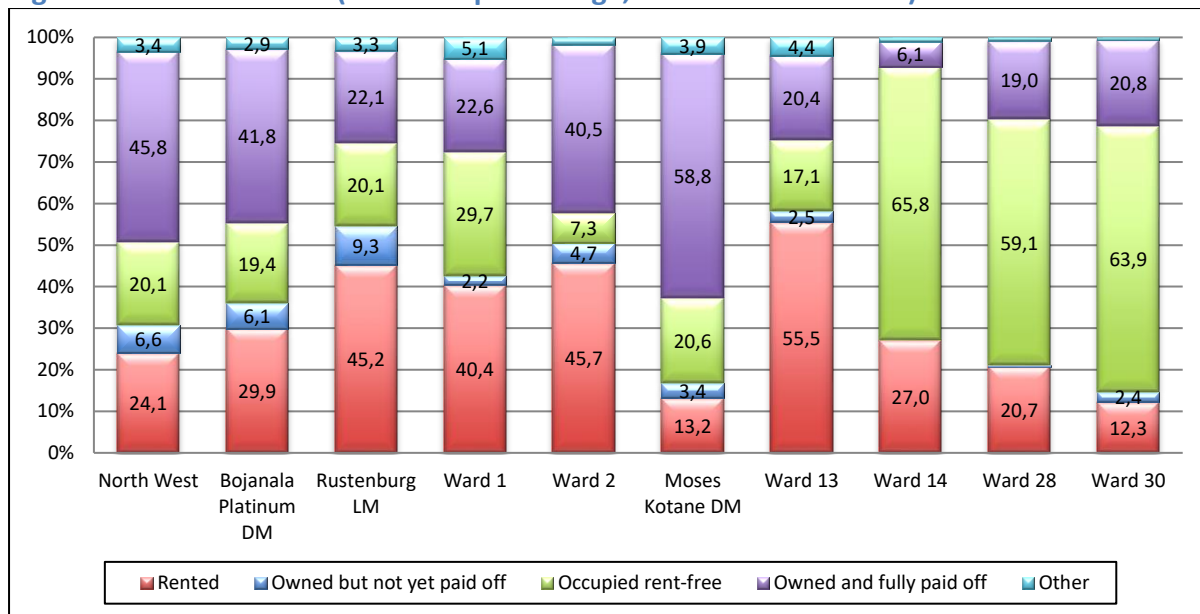
Figure 12: Dwelling types (shown in percentage, source: Census 2011)



Ward 13 has the highest incidence of households renting their dwellings (Figure 14). Wards 1 and 2 also have a high incidence of households renting their dwellings. In all the other wards, most households either occupy their dwellings rent-free or they own their dwellings and have paid them off in full.

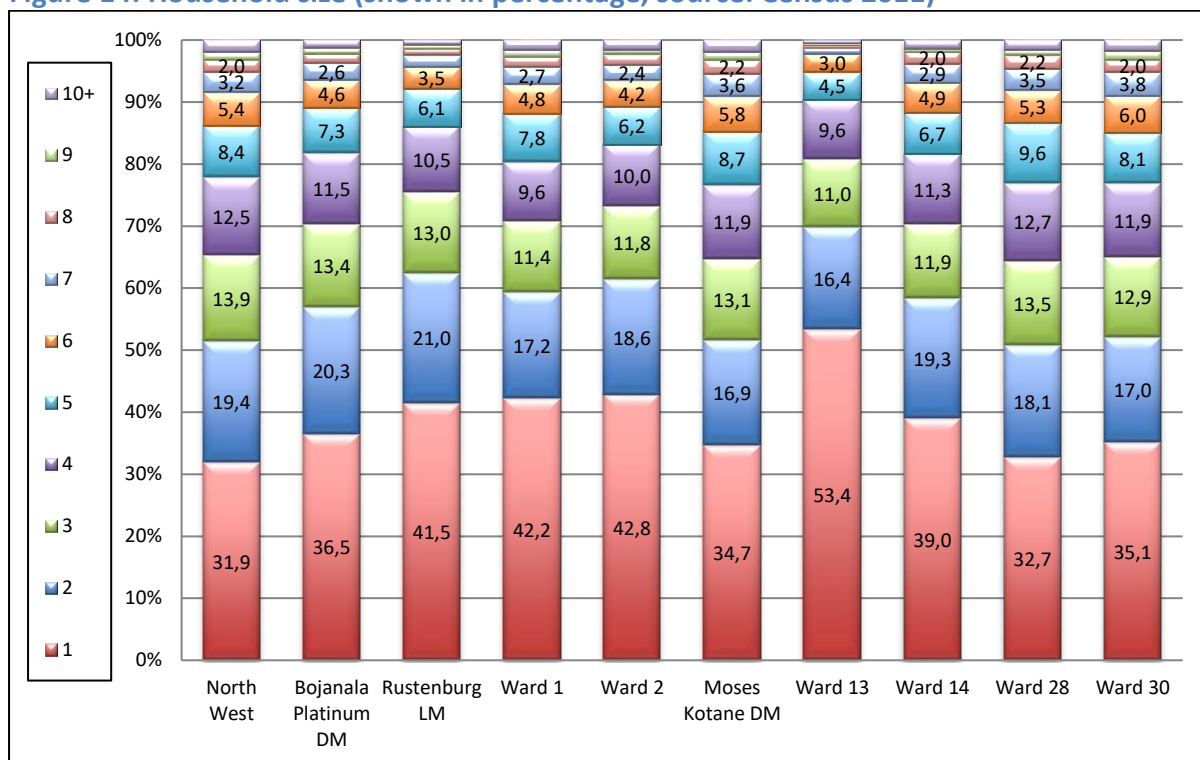


Figure 13: Tenure status (shown in percentage, source: Census 2011)



On a ward level more than half of households consist of only one or two members (Figure 14). Households in Wards 28 and 30 tend to be bigger.

Figure 14: Household size (shown in percentage, source: Census 2011)



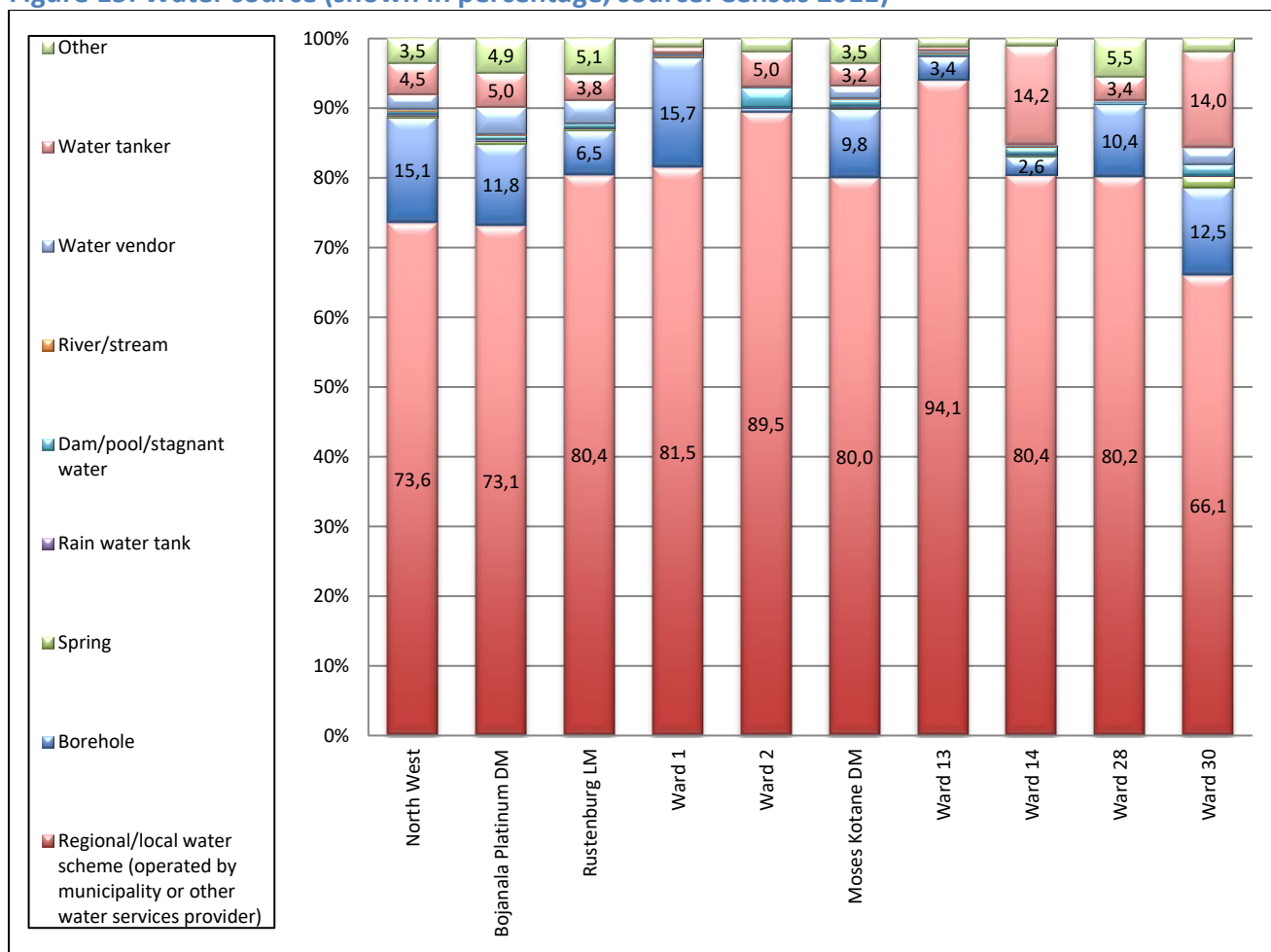


3.2.6 Access to basic services

Access to basic services such as water, sanitation and electricity relate to standard of living according to SAMPI (Statistics South Africa, 2014). Households that use paraffin, candles or nothing for lighting; or fuels such as paraffin, wood, coal, dung or nothing for cooking or heating; have no piped water in the dwelling or on the stand and do not have flush toilets can be described as deprived in terms of these basic services.

The majority of households (Figure 15) get their water from a regional or local water scheme. In Wards 1, 28 and 30 more than 10% of households get their water from boreholes while water tankers supply water to more than 14% of households in Wards 14 and 30.

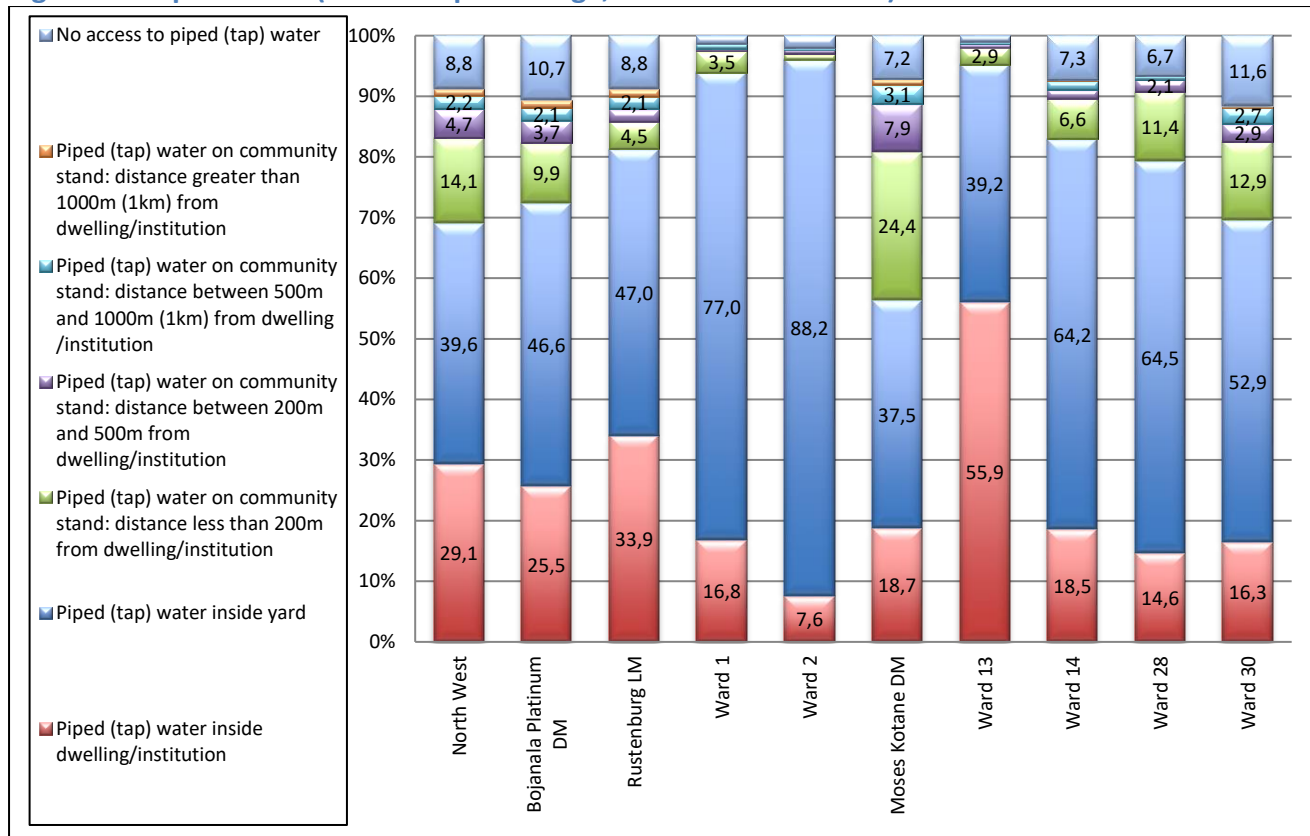
Figure 15: Water source (shown in percentage, source: Census 2011)



Ward 13 is the only ward where a high proportion of households have access to piped water inside their dwellings (Figure 16). Wards 28 and 30 have the lowest proportion of households with access to piped water either inside their dwellings or yards.



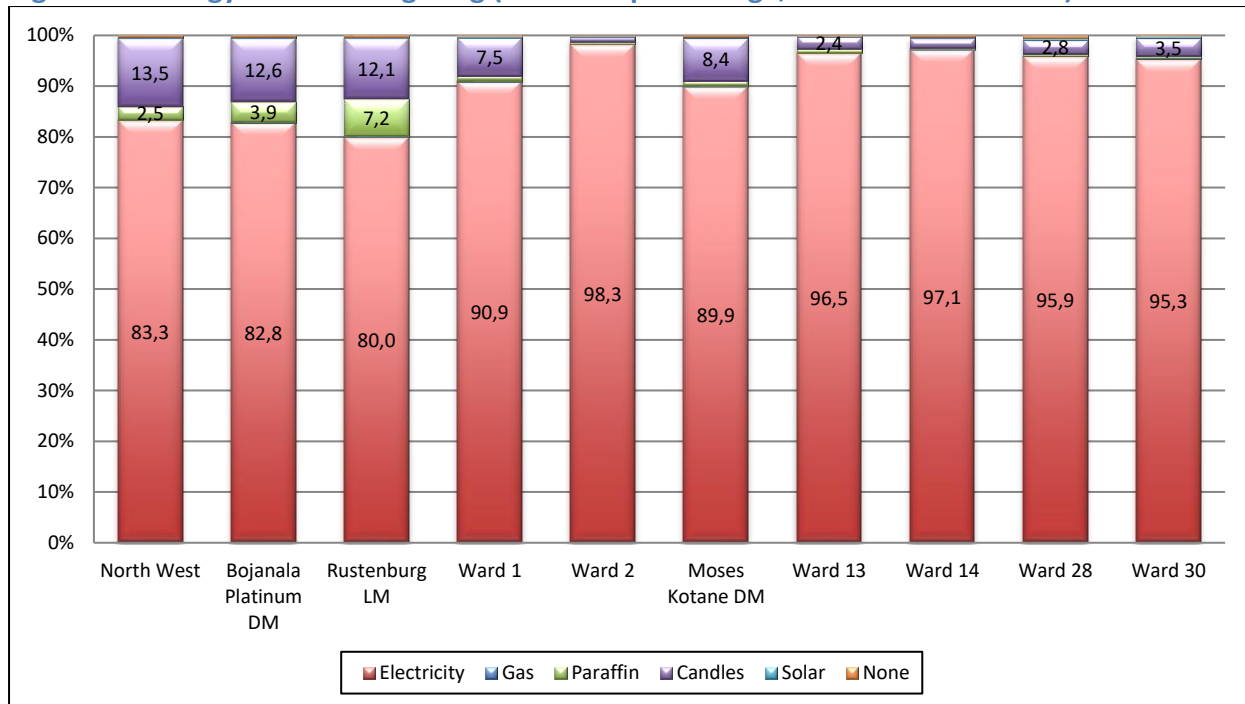
Figure 16: Piped water (shown in percentage, source: Census 2011)



Access to electricity for lighting purposes give an indication of whether a household has access to electricity, as poor households sometimes only use electricity for lighting, but use other sources of energy for heat and cooking. More than 90% of households on ward level have access to electricity for lighting (Figure 17).

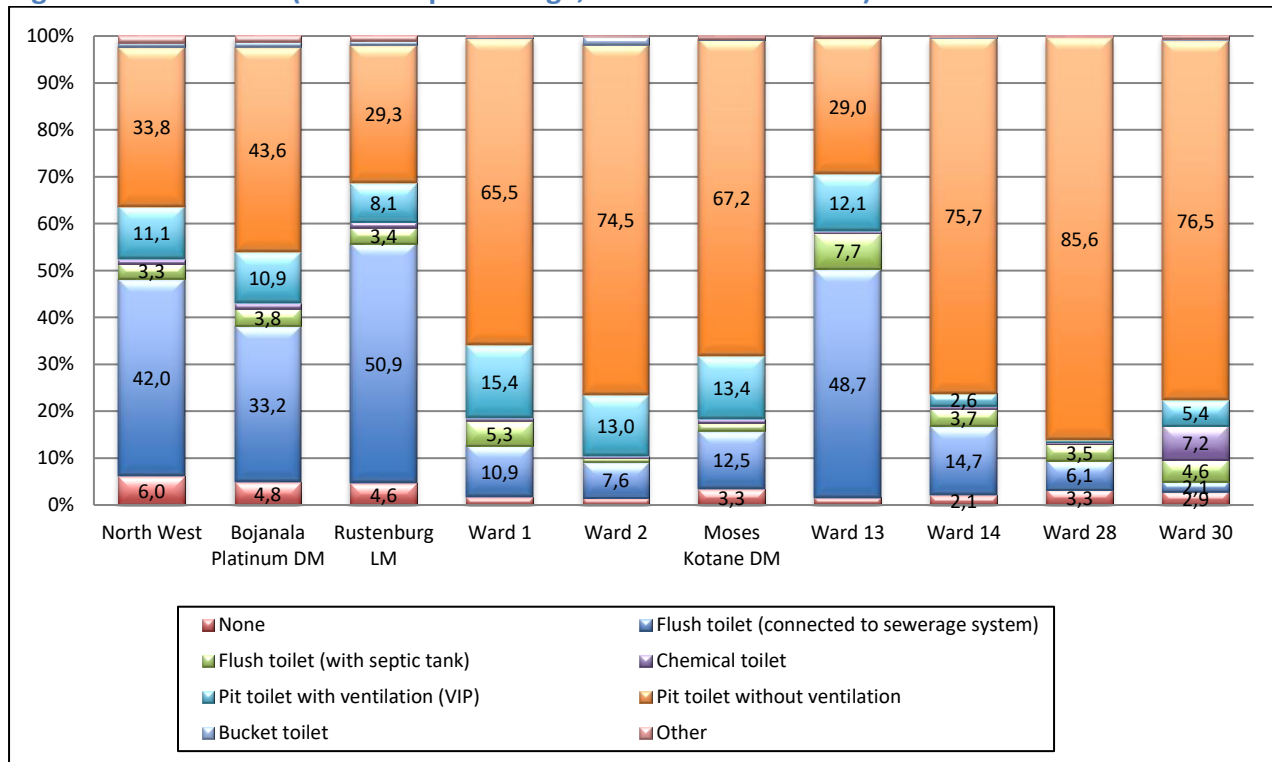


Figure 17: Energy source for lighting (shown in percentage, source: Census 2011)



Most households on ward level have access to pit toilets without ventilation (Figure 18), except for Ward 13 where the majority of households have access to flush toilets that are connected to a sewerage system.

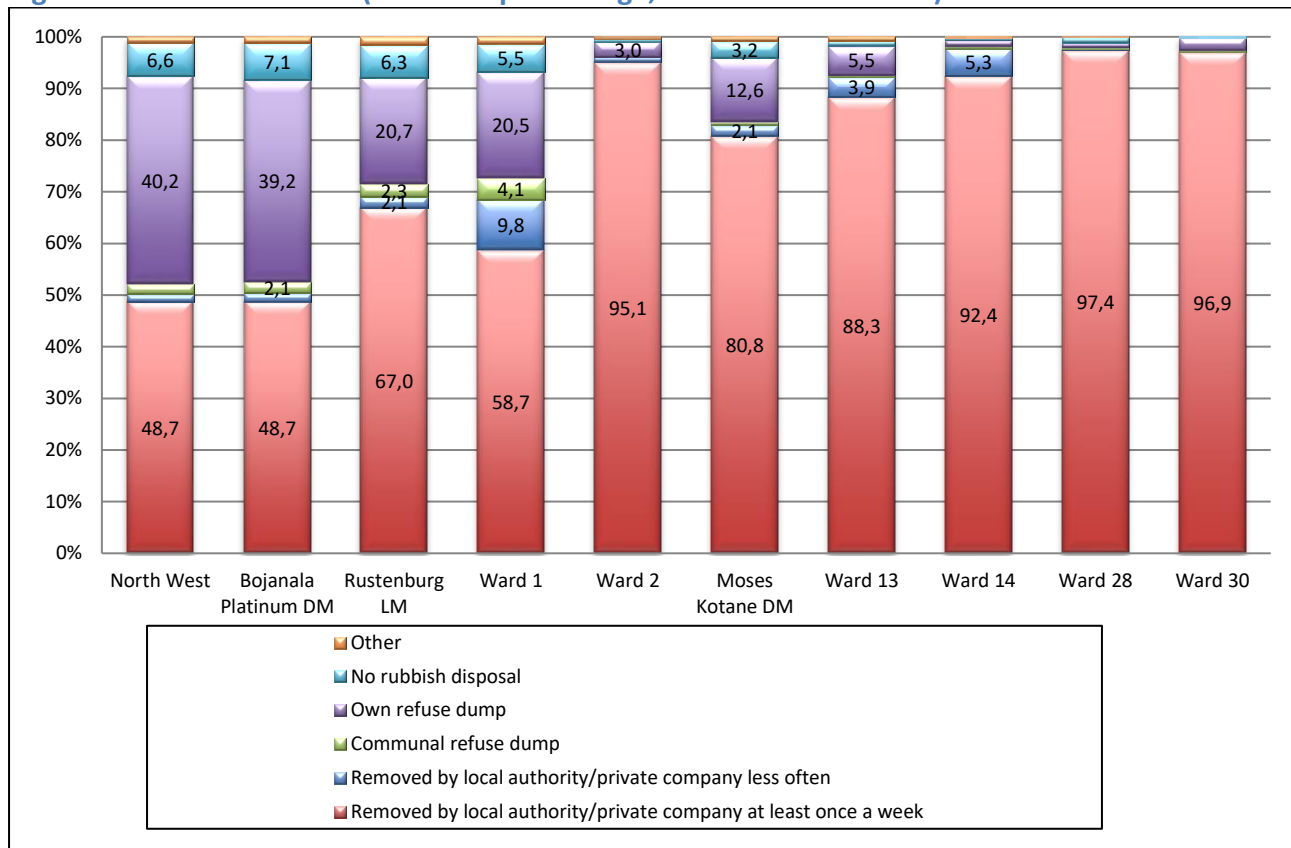
Figure 18: Sanitation (shown in percentage, source: Census 2011)





Most households on a ward level has indicated that their refuse is removed by a local authority or private company at least once a week (Figure 19), except for Ward 1 where about a quarter of households have indicated that they either have their own refuse dump or a communal refuse dump.

Figure 19: Refuse removal (shown in percentage, source: Census 2011)



3.2.7 Access to social infrastructure

The land on which the mining operations take place belongs to the Bakubung Ba Ratheo, which is based in Ledig. The villages in Wards 13, 14, 28 and 30 in the Moses Kotane LM include Ledig, Mogwase Unit 2, Mabele a podi, Kagiso 1, Kagiso 2, Bakgathleng, Section 1, Lethlabile (upper & lower), Selosesha, Reagile (Casablanca), Mahobieskrall, Matooster, Zulu section, Phagameng. Khutsong, Khalanyoni, Sofa Sonke, Codesa, Zones 2, 4 and 6 (MKLM Final IDP 2017 – 2022). Social infrastructure in the area include schools, clinics, the Moses Kotane Hospital and a police station near the entrance of Sun City. There are libraries in the municipal area, but these appear to be quite a distance away from the study area. Although there is some social infrastructure in the area, it appears to be limited.



3.3 Discussion of receiving environment

The receiving environment for the project is located in Ward 28 of the MKLM that falls under the Bojanala Platinum District Municipality in the North West Province. The area is under the traditional authority of the Bakubung Ba Ratheo. Given the location of the mine, Wards 13, 14 and 30 of the Moses Kotane LM and Wards 1 and 2 of the RLM have also been included in the analysis. The area is predominantly rural with land ownership predominantly traditional. The Sun City Resorts and the Pilanesberg National Park are in the area.

The main economic sectors in the Moses Kotane municipal area are tourism, manufacturing, agriculture and mining. Besides Pilanesberg there are a number of smaller nature reserves in the area.

The majority of the population in the study area belong to the Black population group, except in Ward 13 and 14 where the Pilanesberg Game Reserve and the Sun City resorts are located which have some White, Coloured and Indian residents. In terms of age, the population is relatively young, with more than two fifths of the population aged 24 years or younger (except in Ward 13 and 14, where the population is slightly older). In most of the wards the population is sex distribution is more or less equal with a bias towards males in Wards 1 and 2 of the RLM and Ward 13 of the MKLM.

Setswana is the home language of most residents in the study area and there are differences in the language profiles of the different wards. In some wards there is a relatively large proportion of people with isiZulu as home language.

Education levels are low in general and in most areas about 60% of the population has only completed up to some secondary education. Education levels tend to be higher in Ward 13 that include the Pilanesberg Game Reserve and the residential area at the entrance of Sun City. Annual household income levels are low in most the areas, except in Ward 13. Based on annual household income, a large proportion of households are under the food poverty line or in very close proximity of the poverty line. In the MKLM both the number of poor people as well as the intensity of poverty have increased more than in the surrounding areas.

Most households in the area have access to piped water either inside their yard or inside the dwelling, with the lowest incidence in the Moses Kotane municipal area (excluding Ward 13).



Most households have access to electricity, but sanitation remains a challenge with most households having access to pit toilets (except in Ward 13). Most households have refuse removed by a local authority or private company at least once a week.

There is limited access to social infrastructure such as schools, clinics and recreational facilities in the area, but there is a government hospital in the community.

The detailed description of the area highlights the following important aspects:

- Documentation used for communicating about the project should be available in English, Afrikaans, Setswana and isiZulu;
- High levels of illiteracy among certain groups means that written word will not in all cases be the best way to communicate with some of the communities. Additional ways to communicate with the communities that are culturally appropriate must be found;
- Low education levels generally suggest a challenge in finding the required skills in the area, and a resulting challenge in using local labour. As such the mine will need to consider skills development activities to ensure that suitably skilled local labour is available as per the legal requirements;



4 Stakeholder Identification

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

- Government and parastatals
 - North West Province;
 - Bojanala Platinum District Municipality;
 - Moses Kotane Local Municipality;
 - Rustenburg Local Municipality; and
 - Bakubung Ba Ratheo Traditional Authority.
- Civil society
 - Surrounding communities;
 - Private landowners.
- Business
 - Pilanesberg Game Reserve;
 - Local Business Companies



- Sun City Resorts; and
- Other tourism facilities.

The following sections provide a brief description of each stakeholder group to contextualise the impacts that have been identified. The stakeholder groups are described to indicate how they fit into the social area of influence of the project. Some of the stakeholder groups have been impacted on by other mines in the social area of influence, or by other projects or industries. The fluid nature of the socio-economic environment is such that impacts of the proposed project may be cumulative to existing impacts, even if these impacts were not caused by the mine.

4.1 Government

South Africa has a three-tier government consisting of national, provincial and local government. All three levels of government have legislative and executive powers in their own domain (RSA, 2013) and are responsible for a different aspect of service delivery.

4.1.1 Northwest Provincial Government

The provincial government is responsible for housing, schools and clinics (NCP, 2012). Should the project continue, it is not anticipated that there will be a major influx of people into the area, and therefore no additional pressure on services from the provincial government is expected.

4.1.2 Bojanala District Municipality, Moses Kotane Local Municipality and Rustenburg Local Municipality

District and local municipalities are responsible for planning, water delivery, electricity, sanitation and refuse removal (NPC, 2012). These services are a challenge in the rural areas and the mine has been assisting the host community with water provision in Ledig (Wards 14, 28 and 30) and with building water infrastructure which has recently been completed. Moses Kotane LM is a rural municipality that receives majority of its budget from the Treasury and have limited access to rates and taxes. This limits the municipality's ability to fund bigger projects. Some stakeholders felt that the interim mitigating project of tanked water supply was better when BPM was responsible and that MKLM is not doing it properly. There is also an alleged tension between MKLM and RLM about funds received from mines in the area,



which excludes BPM as it has not granted any funds to the municipalities to date. There has been community unrest and xenophobic incidents in the area before (Dikobe, 2020; SABC, 2015; <https://ccs.ukzn.ac.za/files/xenophobia-reports.pdf>). Although an influx of people is not expected should the project be approved, it must be considered that basic social services are currently wanting in especially the settlements in rural areas.

4.1.3 Bakubung Ba Ratheo Traditional Authority

The North West Traditional Leadership and Governance Act (Act No 2 of 2005) provides for the recognition of traditional communities, appointment and removal of traditional leadership. This Act, read with the MPRDA, bestows the responsibility for meaningful consultation with prospectors and mining right holders to the traditional authority. BPM reports to have a positive working relationship with the Bakubung Ba Ratheo Traditional Authority which serves as the main representative for the Ledig community in stakeholder discussions (<https://www.wesizwe.co.za/sustainability-our-communities.php>). The local municipalities and the Bakubung Ba Ratheo Traditional Authority, together with all other stakeholders, have a relatively stable working relationship. Despite this, some parties report that the relationships can sometimes be apprehensive due to historical mistrust between some members of the community and the tribal authority. The source of the tension is generally attributed to the differences about the management of funds that belongs to the community (Compare City Press, 12 September 2010; Adatia, 2011; Thompson, 2020; Dikobe, 2020; Stone, 2020, Seccombe & Thompson, 2020). Understanding the conflict is not a simple task as there are multiple intersecting variables, some of which involve processes that are common across mining regions but some which are deeply contextual. Some of the conflict in the area are political and factional and has been there since 1965 when citizens of Molotestad were forcefully moved to Ledig (Rubin & Harrison, 2015).

4.2 Civil society

Ledig town was formed in the 1960's when the Bakubung had been forcibly removed from the outskirts of the small town of Boons where they had formed a "black spot" within white South Africa during the Apartheid years (Carruthers, 2011). Ledig is the closest town to the mine. Given the dire socio-economic conditions in the area, from a socio-economic



perspective. it is important for the residents that local people must be given priority when it comes to benefits from mining in the area.

4.3 Business

The main economic activities in the area is eco-tourism and mining. BPM has invested in their Social and Labour Plan, which continues to be implemented and has amongst others supported the local community through enterprise development (procurement) and job opportunities.. Businesses supported by the mine include food services, gardening, construction, transport, engineering and printing companies. Sun City resorts are close to Ledig town. Although the Pilanesberg Game Reserve is in close proximity, the two competing land uses seem to operate in harmony and no complaints in this regard were highlighted.



5 Social Impact Assessment

“Almost all projects almost always cause almost all impacts. Therefore, more important than predicting impacts is having on-going monitoring and adaptive management.” Frank Vanclay.

5.1 Impact criteria assessment

It must be stated that the impact tables and ratings have been adapted from the environmental sciences and that it is not always possible to compartmentalise the social impacts. For the sake of consistency this has been attempted, but it is not innate to social sciences. Allowance for the changing and adaptive nature of social impacts should be made when interpreting the impact tables.

5.1.1 Impact Assessment Methodology

5.1.1.1 Defining the nature of the impact and determining significance

In order to ensure uniformity, a standard impact assessment methodology will be utilised so that a wide range of impacts can be compared. An impact is essentially any change to a resource or receptor brought about by the presence of the proposed project component or by the execution of a proposed project related activity. The impact assessment methodology consists of two components, namely defining the **nature** of the impact (Table 7) and assessing the **significance** of the impact (Table 8). **Significance** is assessed as a product of consequence and probability. **Consequence** is composed of severity/magnitude, reversibility, duration and spatial extent. Once a score has been determined, this is checked against the **significance** descriptions (Table 9).

Table 7: Nature of impact.

Term	Definition
Positive (+)	An impact that is considered to represent an improvement on the baseline or introduces a positive change.
Negative (-)	An impact that is considered to represent an adverse change from the baseline or introduces a new undesirable factor.
Direct impact (D)	Impacts that result from a direct interaction between a planned project activity and the receiving environment/receptors (e.g. between occupation of a site and the pre-existing habitats or between an effluent discharge and receiving water quality).
Indirect impact (I)	Impacts that result from other activities that are encouraged to happen as a consequence of the Project (e.g. in-migration for employment placing a demand on resources).
Cumulative impact (C)	Impacts that act together with other impacts (including those from concurrent or planned future third-party activities) to affect the same resources and/or receptors as the Project.



Table 8: Ranking criteria.

Severity / magnitude (M)	Reversibility (R)	Duration (D)	Spatial extent (S)	Probability (P)
5 – Very high – The impact causes the characteristics of the receiving environment/ social receptor to be altered by a factor of 80 – 100 %	5 – Irreversible – Those affected will not be able to adapt to changes and continue to maintain-pre impact livelihoods.	5 – Permanent - Impacts that cause a permanent change in the affected receptor or resource (e.g. removal or destruction of ecological habitat) that endures substantially beyond the Project lifetime.	5 – International - Impacts that affect internationally important resources such as areas protected by international conventions, international waters etc.	5 – Definite - The impact will occur.
4 – High – The impact alters the characteristics of the receiving environment/ social receptor by a factor of 60 – 80 %		4 – Long term - impacts that will continue for the life of the Project but ceases when the Project stops operating.	4 – National - Impacts that affect nationally important environmental resources or affect an area that is nationally important/ or have macro-economic consequences.	4 – High probability – 80% likelihood that the impact will occur
3 – Moderate – The impact alters the characteristics of the receiving environment/ social receptor by a factor of 40 – 60 %	3 – Recoverable - Able to adapt with some difficulty and maintain pre-impact livelihoods but only with a degree of support or intervention.	3 – Medium term - Impacts are predicted to be of medium duration (5 – 15 years)	3 – Regional - Impacts that affect regionally important environmental resources or are experienced at a regional scale as determined by administrative boundaries, habitat type/ecosystem.	3 – Medium probability – 60% likelihood that the impact will occur
2 – Low – The impact alters the characteristics of the receiving environment/ social receptor by a factor of 20 – 40 %		2 – Short term - Impacts are predicted to be of short duration (0 – 5 years)	2 – Local - Impacts that affect an area in a radius of 2 km around the site.	2 – Low probability - 40% likelihood that the impact will occur



Severity / magnitude (M)	Reversibility (R)	Duration (D)	Spatial extent (S)	Probability (P)
1 – Minor – The impact causes very little change to the characteristics of the receiving environment/ social receptor and the alteration is less than 20 %	1 – Reversible - People/ communities are able to adapt with relative ease and maintain pre-impact livelihoods.	1 – Temporary - Impacts are predicted to intermittent/ occasional over a short period.	1 – Site only - Impacts that are limited to the site boundaries.	1 – Improbable - 20% likelihood that the impact will occur

Table 9: Significance Definitions

Score According to Impact Assessment Matrix	Significance Definitions	Colour Scale Ratings	
		Negative Ratings	Positive Ratings
Between 0 and 29 significance points indicate Low Significance	An impact of low significance is one where an effect will be experienced, but the impact magnitude is sufficiently small and well within accepted standards, and/or the receptor is of low sensitivity/value.	Low	Low
Between 30 and 59 significance points indicate Moderate Significance	An impact of moderate significance is one within accepted limits and standards. The impact on the receptor will be noticeable and the normal functioning is altered, but the baseline condition prevail, albeit in a modified state. The emphasis for moderate impacts is on demonstrating that the impact has been reduced to a level that is As Low As Reasonably Practicable (ALARP). This does not necessarily mean that “moderate” impacts have to be reduced to “low” impacts, but that moderate impacts are being managed effectively and efficiently to not exceed accepted standards.	Moderate	Moderate
60 to 100 significance points indicate High Significance	An impact of high significance is one where an accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued/sensitive resource/receptors. An impact with high significance will completely modify the baseline conditions. A goal of the ESIA process is to get to a position where the Project does not have any high negative residual impacts, certainly not ones that would endure into the long term or extend over a large area. However, for some aspects there may be high residual impacts after all practicable mitigation options have been exhausted (i.e. ALARP has been applied). It is then the function of regulators and stakeholders to weigh such negative factors against the positive factors, such as employment, in coming to a decision on the Project.	High	High



5.1.1.2 Mitigation and Residual Impacts

It is expected that for the identified significant impacts, the project team will work with the client in identifying suitable and practical mitigation measures that are implementable. Mitigation that can be incorporated into the Project design in order to avoid or reduce the negative impacts or enhance the positive impacts will be developed. A description of these mitigation measures will also be included within the Environmental and Social Management Plan (ESMP).

Residual impacts are those impacts which remain once the mitigation measures have been designed and applied. Once the mitigation is applied, each impact is re-evaluated (assuming that the mitigation measure is effectively applied) and any remaining impact is rated once again using the process outlined above. The result is a significance rating for the residual impact.

5.2 Impacts identified, mitigation and social management plan

This section describes and assesses the specific social impacts that will be associated with the proposed amendment of the Environmental Authorisation and Waste management License of the Bakubung Platinum Mine. When the mitigation and management of social impacts are considered, one must take into consideration that social impacts occur in communities surrounding the proposed project, and although the project proponent may be the catalyst for some impacts, there may be a number of external factors contributing to the impact. Many of these factors are outside the control of the project proponent. The proponent cannot mitigate many of the social impacts alone, and partnerships with local government and Non-Profit Organisations are often required. Social impacts must be managed in the long term. This complex process requires insight in the social environment and community dynamics. The social environment adapts to change quickly, and social impacts therefore evolve and change throughout the project cycle.

In 2016 a Socio-economic Impact Assessment was conducted for the project (McKune Desai & Van der Merwe, 2016) and the following impacts were identified:

**Table 10: Impacts identified in 2016 SIA**

Project Phase	Positive impacts	Negative impacts
Construction	<ul style="list-style-type: none"> • Employment and skills development • Benefits to the local economy 	<ul style="list-style-type: none"> • Influx-related impacts • Increased nuisance factors (dust, noise, visual) • Disruption of livelihood activities
Operation	<ul style="list-style-type: none"> • Increased employment opportunities • Benefit to the local economy 	<ul style="list-style-type: none"> • Pressure on infrastructure and services • Increased nuisance factors (dust, traffic, noise) • Disruption of livelihood activities
Decommission and closure	No impacts have been identified	No impacts have been identified

It must be noted that the 2016 SIA had built on the original 2008 SIA, which were conducted for the construction of the mine. The focus of this SIA report will only be on the cumulative impacts, and any new impacts associated with the activities required for the amendment of the Environmental Authorisation and Waste Management License. It is acknowledged that there are already mitigation measures in place for some of the impacts.

5.2.1 Existing and cumulative impacts

Given that BPM is an existing facility, it must be considered that many of the impacts are existing impacts. When considering existing impacts, the complexity of the social environment must be contemplated. Social impacts are not site-specific but occur in communities surrounding the site. The activities taking place in the area surrounding the project site has also caused a number of impacts. From a social perspective it is not possible to pinpoint which percentage of any given impact result from a specific activity or proponent. For example, agricultural, tourism and mining activities may cause an influx of people into an area due to the possibility of employment creation. It is not possible to say, for example, that 30% of people moving into the area looked



for an agricultural job, 60% for a mining job and 10% for a tourism job. It is possible to say that all these industries contributed to the honeypot effect (project-induced immigration where people move to the project site in search of work or economic opportunities that arise from the project) that is experienced in the area. BPM and its activities are not the only party responsible for the existing social impacts in the area, but the mine does contribute to these impacts, and will continue to do so through the life of mine. The following existing impacts that are associated with mining are experienced in the community:

5.2.1.1 Environmental impacts with social dimensions

- Water quality and availability – a slight decline in borehole levels and water quality (SLR, 2016).
- Dust/air pollution – dust from blasting, drilling, loading and unloading and transport of ore. This has health and quality of life impacts and also impact on the right to life in a clean environment that is not detrimental to your health.
- Vibrations – related to blasting.
- Noise – associated with blasting and transport of ore, safety requirements like reverse alarms.

5.2.1.2 Economic impacts

- Job creation – Especially in the lower socio-economic groups, each income can support a number of family members and dependents through remittances. The BPM currently employs 1252 people. At its peak it is estimated that 3242 people will be employed.
- Competition for jobs – South Africa has an unemployment rate of 29,1% in 2020, one of the highest in the world. There is therefore a high demand for available jobs. Due to the high illiteracy levels in the community, there is an over-supply of unskilled labour, and mines require a minimum of Grade 12 for certain positions. Although there are some skilled labourers that live in the community, there are not always enough skilled labourers to meet the needs of the mine.
- Skills development – according to the requirements of the MPRDA the mine is forced to have skills development plans. This is not only to the advantage of



the contractors and employees, but also benefit people from the local community. The MPRDA requires that skills development must focus on transferable skills that can be used outside of the mining industry. BPM has an extensive skills development plan. In their approved Human Resources Development plan that forms part of their Social and Labour Plan almost 300 people will benefit from skills development opportunities in the current cycle (SEF presentation, 18 Sept 2020).

- Social and Labour Plan – according to the MPRDA the mine is required to have a Social and Labour Plan (SLP). The SLP commits to significant investment in the surrounding communities. The current BPM SLP has identified nine SLP projects (SEF presentation, 18 Sept 2020) including:
 - Host Community Water Delivery
 - Bulk Water Infrastructure
 - Public transport support
 - Zwartkoppies Agricultural Farm Project
 - Enterprise Development Project
 - Community Schools Infrastructure Project
 - Environmental Projects
 - Mphuphuthu Multi-Purpose Sport Court Project
 - Gabonewe Housing Development

These projects are in different phases of completion for the current SLP cycle which will end in 2023.

5.2.1.3 Impacts on infrastructure

- Traffic congestion and potential road surface damage through movement of construction materials, mine products and transport of staff. According to the 2016 Traffic Impact Assessment (SLR, 2016) the road was still in a fair condition and there were signs of road maintenance.

5.2.1.4 Community-based impacts

- Community expectations – the community expect benefits because of the proximity of the mine to the community.



- Community relations – There is a history of mistrust and tensions attributable to historical transactions and reported litigations between the traditional authority and some members of the community, these have also been widely reported as allegations of misuse of funds and related issues. Safety on the roads - the constant movement of trucks, cars and buses impacts on the community's road safety.
- Influx of people into the area – there are informal settlements and people from outside are settling in the local villages. It is not expected that the activities associated with the amendment of the environmental authority and change in the Waste Management License will cause a significant impact of people other than the natural in- and out-migration that occurs.
- Health impacts - The spread of diseases such as HIV/AIDS and Tuberculosis are an existing problem in the local area.

5.2.2 Impact of Covid 19 on the mining industry

COVID-19 had a significant impact on the mining industry. Generally, the mining sector has dealt with its impact extremely well, leading an effective response due to:

- The safety-first culture that prioritized people's health and well-being
- Excellent governance that enabled agile change management with the right checks and balances in place
- Collaboration with governments, the sector, health experts and communities to ensure leading practices were followed
- Changes made on expert advice that were embedded across operations to ensure a consistent, effective response to the pandemic (Mitchell, 2020).

BPM suffered severe losses because of the pandemic. As a consequence of Covid-19 and its related impacts on the process plant construction schedule, the development of BPM has been delayed with the commissioning date now set for October 2021 (Arnoldi, 2020).



5.2.3 Social impacts specific to the amendment of the Environmental Authorisation and Waste Management License of the Bakubung Platinum Mine

The following impacts will be triggered by the amendment of the Environmental Authorisation and Waste Management License for the BPM. Some of the impacts are existing impacts but have been included here because it will be caused by activities associated with the expansion.

5.2.3.1 Community expectations

There are some local tensions in the community related to the management of community assets and other historical events. This has been a long-standing issue and continues to be a challenge for mines in the area (Mataboge, 2013; Mahikeng Mail, August 2019). Due to the mistrust, and the expectations that some community members have, there is a strong possibility of local conflict. The current reality in South Africa is that communities tend to resort to violent protests if they feel that they are not heard. There is a risk that lives can be in danger and property damaged during these protests, and the mine should have emergency procedures in place should there be protests of this nature that endangers its assets and the lives of staff and community members.

Although some of the community expectations are realistic, the extent to which the mine can meet some of the expectations are limited. Unless the expectations of the community are managed carefully, this impact may pose a significant risk to the mine, on different levels. This impact can occur throughout the life of the mine. The mitigation measures are captured in Table 11 below.



Table 11: Mitigation measures for impacts relating to community expectations.

No	Mitigation Measures	Phase	Timeframe	Responsible party for implementation	Monitoring party (frequency)	Target	Performance indicators (monitoring tool)
1.	BPM must continue to invest in their Stakeholder Relations Division	Design and planning, Construction Operation Decommission	Commence in the planning phase and continue through to the decommission phase of the project	BPM Management	N/A	Manage social and community aspects of the mining operation	A functional and Effective Stakeholder Relations Division with a Stakeholder Relations Manager and Community Relations Officer
2.	BPM must continue to implement their grievance mechanism and ensure that it is community-friendly. BPM must continue to address and keep record of community grievances. BPM must continue to keep a grievance register. It is important to have documented evidence of community/mine interactions. This will assist the mine to track the issues, and the community to see what actions the mine has taken.	Design and planning, Construction Operation Decommission	Commence in the planning phase and continue through to the decommission phase of the project	Stakeholder Relations Manager (SRM) Community Relations Officer (CRO) Community groups Mine management	Grievance register must be checked on a weekly basis. Feedback to community about grievances must be done on a monthly basis by the CRO to the SRM	Record, track and address grievances	Grievance register Monthly feedback reports
3	The mine must include planning and	Design and	Commence in	SRM	Review the	Ensure all staff	Emergency



	<p>budgeting for external conflict situations (such as roadblocks or invasions) in their emergency response procedure and ensure that their current insurance remains updated. They must also periodically review their stakeholder engagement plan to guide their interaction with stakeholders</p>	<p>planning, Construction Operation Decommission</p>	<p>the planning phase and continue through to the decommission phase of the project</p>	<p>CRO Safety manager</p>	<p>emergency response procedure and stakeholder engagement plan once a year</p>	<p>knows what action to take in a conflict situation</p>	<p>response plan Stakeholder engagement plan</p>
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5.2.3.2 Dust from a social and livelihood perspective

The proposed construction will create dust, which will continue in the operational phase of the project. The dust potentially has health impacts and may impact on the grazing areas of subsistence farmers. Dust is also a significant nuisance factor, because even if it is in the legal limits, it is something that is visible to the communities. Health impacts that communities often ascribe to dust is asthma, sinusitis and allergies. It impacts on their quality of life where they feel they need to clean their houses more often and cannot hang washing outside. This impact will be worse during the construction phase but will continue for the life of the mine.

The mitigation measures are captured in Table 12 below.



Table 12: Mitigation measures for dust relating to dust from a social and livelihood perspective.

No	Mitigation Measures	Phase	Timeframe	Responsible party for implementation	Monitoring party (frequency)	Target	Performance indicators (monitoring tool)
1.	The relevant specialists will provide scientific mitigation measures for this aspect. From a social perspective it is important to continue to communicate the mitigation and monitoring measures to the affected parties, which is currently done through quarterly feedback sessions.	Design and planning, Construction, Operation.	Commence in the planning phase and continue through to the operation phase of the project	SRM CRO Environmental Manager	As prescribed by specialists Feedback meetings arranged by SRM and CRO	Minimise the dust impact on the neighbouring properties	Minutes of meetings Monitoring results from relevant specialist studies.



5.2.3.3 Economic impacts and skills development from a social perspective

The project will ensure job security for currently employed people, as they will be able to continue with their current jobs. This impact would be experienced on a wider level, since it will allow them to meet the needs of their family members. The new activities at the mine will create 86 new jobs and 1055 construction jobs. BPM has targets of at least 30% local employment. Wages that employees receive will increase their spending power in the study area. This will be especially beneficial to retail and other service providers. The job creation will be a significant positive impact during the construction phase. There are high levels of poverty and unemployment in the area, and this may cause significant competition for jobs.

The mine will also continue to implement their skills development programmes required as a part of the SLP. This will allow more people to benefit from the skills development programmes as the mine develops. The DMR requires that skills development plans must ensure that people obtain transferable skills. The skills development impact will continue for the life of the mine. In the SLP the BPM also commit to develop skills in the local communities, therefore this impact will be felt wider than the mine.

Apart from the direct economic impacts of the proposed project, there will also be secondary economic opportunities that can potentially benefit local service providers. The use of local service providers will ensure that the local economy benefits directly from the proposed project. The positive impact of the mine on the local economy will continue for the life of the mine. The SLP also commits to secondary economic development in the area, and if it is implemented as planned should be a significant contribution.

The mitigation measures are captured in Table 13 below.



Table 13: Mitigation measures for economic impacts from a social perspective.

No	Mitigation Measures	Phase	Timeframe	Responsible party for implementation	Monitoring party (frequency)	Target	Performance indicators (monitoring tool)
1.	Skills development plans must be focussed on skills that the mine needs, and that are also transferable. Support must be given to people after the training to ensure that their newly acquired skills can be implemented.	Design and planning Construction Operation	Commence in the planning phase and continue through to the operation phase of the project	Skills Development Manager Bakubung management	Yearly reviews of SLP and skills development initiatives.	Develop transferable skills in the local community. Assist them to start-up businesses by providing a market for their products	SLP Training reports Number of people successfully trained and earning a living from the skills that they acquired
2.	The mine should continue to put measures in place to ensure the most effective local employment strategy.	Design and planning Construction Operation Decommission	Use the design and planning phase to refine strategy	SRM CRO HR manager	Advertise available jobs on a quarterly basis	Communicate the availability of jobs to the community in a mutually agreed and accessible manner.	Number of people of the local community employed by the mine
3.	BPM should ensure a fair number of	Construction,		BPM	Review supplier	To ensure BPM	Signed service



	<p>secondary economic opportunities are given to local contractors. A percentage of goods as determined by BPM and the relevant stakeholders must also be procured locally. Services and goods must be procured locally as far as reasonably possible. Aspects of this positive impact will occur by default when the construction force lives locally and they utilise local services and support local shops.</p>	operation, decommission, closure and rehabilitation		Local business chamber	list on a yearly basis	contribute to the local economy through secondary opportunities	provider agreements
4.	<p>BPM should liaise with local training institutions to determine whether there are any opportunities to offer internships and practical experience for their students. BPM must ensure that skills development requirements form part of their contracts with sub-consultants. The skills development requirements in their Social and Labour Plan (SLP) must continue to be implemented.</p>	Construction, operation	Once construction commence, throughout operation phase of the project	BPM	Will be monitored as part of the SLP	To ensure BPM contributes to local education, skills development and training	Requirements written into sub-consultant agreements Number of internships and on-the-job training opportunities offered



5.2.3.4 Increase in social pathologies such as prostitution, sexually transmitted diseases, teenage pregnancies and alcohol and substance abuse

The construction of the tailings dam will include specialised construction teams. It is not clear where the construction workers will be housed, but it is anticipated that the levels of activities in the local areas will increase, especially during weekends. Depending from where they come, workers will probably not be able to go home every weekend. People with access to more money and different value systems may mix with local community members.

In-migration triggers a dramatic rise in the “four M’s”: men, money, movement (influx), and mixing (i.e., the interaction between high and low disease prevalence groups). These factors are the conditions necessary to produce a surge in sexually transmitted diseases. Other drivers of the HIV epidemic that may be relevant for the project include high levels of alcohol and drug abuse, transactional and commercial sex, sexual and gender-based violence, migratory labour, poverty, income disparities and unequal access to prevention, treatment and care. Another important consideration is the impact of contractors bringing in materials from other provinces, especially during the construction phase. The truck drivers are often required to stop overnight. The truck stops become “hot spots” with a considerable pull factor luring people with economic opportunities, including sex work. It is difficult to manage these transient factors, but it does contribute to the spread of the disease amongst transportation routes, and it is therefore important to consider the impact.

Given the high unemployment levels in the area, people may deploy livelihood strategies such as prostitution. Vulnerable parties such as young girls may also fall victim to sexual predators and there can be an increase in teenage pregnancies. Promiscuous behaviour can lead to an increase in the spread of sexually transmitted diseases. There may be an increase in alcohol and substance abuse due to these substances being more easily available.



Table 14: Potential mitigation impacts on social pathologies.

No	Mitigation Measures	Phase	Timeframe	Responsible party for implementation	Monitoring party (frequency)	Target	Performance indicators (monitoring tool)
1.	Toolbox talks should include talks about the impact of promiscuous behaviour. BPM should develop an in-house infectious diseases strategy to address health issues within the workforce and align the strategy with a community HIV strategy implemented by a non-profit organisation. Local schools and communities living in traditional areas close to the project must be included in the strategy. The strategy should include voluntary counselling and testing and training of peer educators. A workforce code of conduct should be developed to maximise positive employee behaviour in the local community, and optimise integration	Construction	Align with the construction period	BPM Health care service provider NPO	SRM and CRO to ensure strategy implemented in construction phase. If needed can be repeated in other phases as well	To create awareness about social pathologies and the spread of diseases	In-house infectious diseases strategy Voluntary testing and counselling events organised Trained peer educators Accepted workforce code of conduct
2.	Extend the workplace programme for HIV	Construction	Throughout	BPM	Audit all	To create	Written into



	<p>beyond the company’s operations, and include all contractors, suppliers, transportation companies and local communities. Make it a contractual requirement. The spread of HIV along transportation routes (roads and railways) is well documented, so this component of the project (transportation of all goods and services to and from the project site) needs special attention.</p> <ul style="list-style-type: none"> • Select suppliers who have in-house HIV programmes and policies in place; • Develop tailored behaviour change communication (BCC) materials such as mirror hanger messages and bumper stickers; • Include condoms in the road safety kit; • Work with truck company managers to ensure that their drivers receive adequate HIV training; 	<p>Operation</p>	<p>the construction and operation phase of the project</p>	<p>Contractors Communities</p>	<p>contractors yearly to make sure that they adhere to the requirements</p>	<p>awareness about HIV and prevent the spread of disease</p>	<p>contracts Awareness raising materials visually displayed by contractors Results of audit</p>
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Table 15: Significance ratings.

Project activity or issue	Potential impact	Nature of impact		Significance before mitigation							Significance after mitigation as per EMP						
		+ / -	D/I/C	M	R	D	S	P	TOTAL	SP	M	R	D	S	P	TOTAL	SP
<i>Socio-economic</i>																	
Construction of tailings dam	Community expectations	-	D	3	3	4	2	4	48	M	3	3	4	2	3	36	M
	Dust from social and health perspective	-	D	3	5	4	2	4	56	M	2	5	4	2	3	39	M
	Skills development	+	D	4	3	5	3	5	75	H	5	3	5	3	5	80	H
	Job creation	+	D	2	3	4	2	4	44	M	3	3	3	2	5	55	M
	Local economy	+	I	3	3	3	2	4	44	M	4	3	4	2	5	65	H
	Increase in social ills	-	I	3	3	4	2	4	48	M	2	3	3	2	3	30	M

Table 16: Social Action Plan¹.

SOCIAL ACTION PLAN				
Phase	Management action	Timeframe for implementation	Responsible party for implementation (frequency)	Responsible party for monitor/audit/review (frequency)
Planning Phase	Develop social action plan Ensure SRM and CRO are appointed for the life of the mine to deal with social	As soon as project enters public domain	Applicant	Wellness Officer External but not legally required

¹ It is acknowledged that the mine may already have some of the actions in place, given that mining activities has started already



	aspects of the project throughout the life of the mine			
	Develop stakeholder engagement strategy	Before consultation with stakeholders start Updated and revised throughout the life of the project as needed	Applicant Continued for the life of project	SRM CRO Internal No external review required
	Develop community conflict plan, grievance mechanism and compensation policy in case of claims	In consultation with stakeholders	Applicant Continued for the life of project	SRM CRO Internal No external review required
Construction Phase	Monitoring of social mitigation and management measures	Throughout construction	Applicant (SRM &CRO) Continued for the life of project	Management Once a year or as required
	Implementation of stakeholder engagement plan	Throughout construction	Applicant (SRM &CRO) Continued for the life of project	Management Once a year or as required
	Implement community conflict plan, grievance mechanism and compensation policy	Throughout construction	Applicant (SRM&CRO) Continued for the life of project	Management Once a year or as required



Operation Phase	Monitoring of social mitigation and management measures	Throughout operation	Applicant (SRM&CRO) Continued for the life of project	Management Once a year or as required
	Implementation of community relations strategy	Throughout operation	Applicant (SRM&CRO) Continued for the life of project	Management Once a year or as required
	Implement community conflict plan, grievance mechanism and compensation policy	Throughout operation	Applicant (SRM&CRO) Continued for the life of project	Management Once a year or as required
Decommissioning Phase	Implement community conflict plan, grievance mechanism and compensation policy	Throughout decommissioning	Applicant (SRM&CRO) Continued for the life of project	Management Once a year or as required
	Continue with stakeholder engagement strategy	Throughout decommissioning	Applicant (SRM&CRO) Continued for the life of project	Management Once a year or as required
	Conduct SIA for closure and implement social mitigation for closure	Throughout decommissioning	External SIA consultant Applicant (SRM&CRO) Continued for the life of project	Closure SIA – once off Management Once a year or as required
Closure and Rehabilitation	Continue stakeholder	Until all rehabilitation	Applicant (SRM&CRO)	Management



Phase	engagement strategy until all activities on site cease and rehabilitation is completed	activities have ceased	Continue until all rehabilitation activities have been completed	Once a year or as required
	Continue with community conflict plan, grievance mechanism and compensation policy.	Until all rehabilitation activities have ceased	Applicant (SRM&CRO) Continue until all rehabilitation activities have been completed	Management Once a year or as required



6 Proposed Grievance Mechanism

In accordance with international good practice BPM have a specific mechanism for dealing with grievances which complies with the IFC standards. It is called the Complaints and Compliments policy and procedure. A grievance is a complaint or concern raised by an individual or organisation that judges that they have been adversely affected by the project during any stage of its development. Grievances may take the form of specific complaints for actual damages or injury, general concerns about project activities, incidents and impacts, or perceived impacts. The IFC standards require Grievance Mechanisms to provide a structured way of receiving and resolving grievances.. The BPM grievance mechanism prescribe a 14 day turnaround period for grievances..

The Complaints and Compliments Policy and Procedure consist of the following steps:

- Submission of compliment or complaint;
- Registration of compliment or complaint;
- Review of compliment or complaint; and
- Provision of a considered response to the complainant on time.

The grievance mechanism must be reviewed by the local communities from time to time.

7 Conclusions and recommendations

The mine is in a rural area known for tourism and close to vast peri-urban settlements. The impacted communities are poor and there are high levels of unemployment. There is likely to be a lot of competition for jobs and given the skills levels in communities it is anticipated that there would need to be some recruitment from outside the area. The BPM has an ambitious SLP that promises significant investment in the community. The SLP can only be implemented if the mine reaches its full



potential in terms of profit. Given its proximity to other mining areas, it is not expected that the project will cause a significant influx of people into the area, as there are already people with some skills in the area that the mine could employ. The following recommendations are made:

- The mine must continue to invest in their Stakeholder Relations Division.
- The mine must continue to implement a community-friendly external grievance mechanism in conjunction with communities;
- The mine must develop a community relations strategy to plan for and guide its involvement with the community. The strategy should include feedback mechanisms about aspects of concern to the community;
- The mine should continue to put measures in place to ensure the most effective local employment strategy;
- The mine must continue to ensure that social requirements as specified in the mitigation measures are included in their contracts with sub-contractors;

The list of recommendations should be included in the environmental authorisation. From a social perspective, there are no fatal flaws and it is recommended that the project proceed.



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