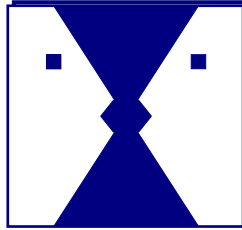


Mogalakwena PV Facility

Draft Social Impact Assessment



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Prepared for:
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Executive Summary

The purpose of this document is to provide a baseline description of the socio-economic environment and to identify social impacts associated with the construction and operation of the expanded solar PV facility for the Mogalakwena Mine.

The receiving environment is located in the Mogalakwena Local Municipality, which is located in the Waterberg District Municipality in Limpopo Province. The proposed site is located adjacent to the villages of Motlhotlo Ga Puka, Mothlotlo Ga-Sekhaolelo and Ga Molekana. Platinum mining is considered key to the economic development in the area, and for the communities surrounding the mine, it is one of the few economic opportunities available, and as a result there is a significant expectation in terms of employment and procurement opportunities at the mine.

Education levels are relatively low and vary on ward level, suggesting that it might be easier to find people with the required skills in some areas than in other areas. Employment levels are low and vary across wards, suggesting that expectations regarding employment or benefits are likely to be higher in some areas than others. A large proportion of households live below the poverty line.

Relationships between communities and the mine, as well as between some community groups are strained in some cases, and this represent a business risk to the mine and associated projects. Anglo has initiated a programme to reset the relationship with communities aimed at addressing some legacy issues.

The following impacts have been identified in relation to the project. Some are existing impacts that pose a significant business risk to the project:

- Community-based impacts
 - Community expectations
 - Community resistance to the project
 - Community relations



- Uncertainty
 - Possibility of Relocation
 - Loss of livelihoods
- Economic impacts
 - Job creation
 - Economic opportunities
 - Community shareholding
- Impacts on infrastructure
 - Traffic impacts
 - Physical infrastructure
- Environmental impacts with social dimensions

The following recommendations are made:

- The Independent Power Provider (IPP), which will develop the plant, must ensure that its external grievance mechanism is community-friendly and updated in conjunction with communities;
- The IPP must integrate the project in the mine's existing community relations strategy to guide its involvement with the community. The strategy should include feedback mechanisms about aspects of concern to the community;
- The IPP should have a recruitment policy that is communicated to stakeholders;
- The IPP should establish a labour desk or make use of existing labour structures at the mine and put measures in place to ensure effective local employment;
- The IPP should consider having a skills development plan to develop skills in the community to enable sourcing local labour;



- The IPP should engage with local entrepreneurs to maximise the availability of local economic opportunity. The mine can consider facilitating the establishment of a local business association if it does not already exist.
- The IPP should implement a communications strategy that share information and facts with the community that will address their information needs;
- The IPP should compile a relocation action plan and livelihood restoration plan to inform any potential relocation and loss of livelihoods;
- Community shareholding should be planned in collaboration with the local communities. The IPP should consider establishing a community trust that is administered by a board that consist of a range of representatives, including representatives from the local communities.
- Develop a traffic management plan that will enhance community safety.
- Plan housing and infrastructure needs in advance. If there is a construction camp, it must be planned in consultation with the surrounding neighbours and according to international best practice.



Declaration of Independence

Equispectives Research and Consulting Services declare that:

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



Record of Experience

Ilse Aucamp and San-Marié Aucamp compiled this report.

Ilse Aucamp holds a D Phil degree in Social Work obtained from the University of Pretoria in 2015. She also has Master's degree in Environmental Management (Cum Laude) from the Potchefstroom University for Christian Higher Education, which she obtained in 2004. Prior to that she completed a BA degree in Social Work at the University of Pretoria. She is frequently a guest lecturer in pre- as well as post-graduate programmes at various tertiary institutions. Her expertise includes social impact assessments, social management plans, social and labour plans, social auditing, training as well as public participation. She is the past international chairperson of the Social Impact Assessment section of the International Association of Impact Assessment (IAIA) as well as a past member of the National Executive Council of IAIA South Africa. 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.

San-Marié Aucamp is a registered Research Psychologist with extensive experience in both the practical and theoretical aspects of social research. She has more than 20 years' experience in social research and she occasionally presents guest lectures on social impact assessment. Her experience includes social impact assessments, social and labour plans, training, group facilitation as well as social research. She is a past council member of the Southern African Marketing Research Association (SAMRA).



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GLOSSARY OF TERMS

Livelihood: The ways in which people combine their capabilities, skills and knowledge with the resources at their disposal to create activities that enables them to make a living.

Securitisation: A financial arrangement that consists of issuing securities that are backed by a pool of assets, in most cases debt.

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.

Sustainable livelihood: A livelihood that can carry on in the present and in the future without depleting the resources it depends on and without depriving other people of a livelihood. It can be carried on in spite of shocks or changes like natural disasters or seasonal cycles.



LIST OF ABBREVIATIONS

DM	District Municipality
ESIA	Environmental and Social Impact Assessment
ESMP	Environment & Social Management Plan
EMP	Environmental Management Plan
ESOMAR	European Society for Opinion and Marketing Research
FPL	Food Poverty Line
IDP	Integrated Development Plan
IFC	International Finance Corporation
IHDI	Inequality-adjusted Human Development Index
IPP	Independent Power Provider
LBPL	Lower Bound Poverty Line
LED	Local Economic Development
MDG	Millennium Development Goal
MPI	Multidimensional Poverty Index
NDP	National Development Plan
NGO	Non-Government Organisation
RAP	Resettlement Action Plan
RE	Renewable Energy
SAMRA	Southern African Marketing Research Association
SIA	Social Impact Assessment
UBPL	Upper Bound Poverty Line
UNEP	United Nations Environmental Programme



1 Introduction

Anglo American Platinum Limited (AAP) has appointed an Independent Power Producer (IPP) for the development, financing, ownership, construction, operation and maintenance of a solar photovoltaic (PV) facility (The Project). The PV Facility will supply energy on an exclusive basis to the AAP's Mogalakwena Mine in Limpopo, South Africa in terms of a Power Purchase Agreement with an operating term of 25 years, as may be extended or amended in accordance with the terms of the PPA. The project will not be transferred to AAP or its selected nominee on the expiry or early termination of the term.

Since the appointment of the Engineering, Procurement and Construction (EPC) contractor for the plant, the final designs necessitated a larger footprint within which to place the PV panels to generate the required amount of electricity. The applicant therefore wishes to apply for a change in the facility footprint (See Figure 1);

The originally assessed transmission lines to the mine will fall away, to be replaced by a short tie-in from the substation to the Eskom lines along the western side of the site. The length of these lines is 140m. A single pylon will be required for these lines between the plant's substation and

The key objectives of the project include:

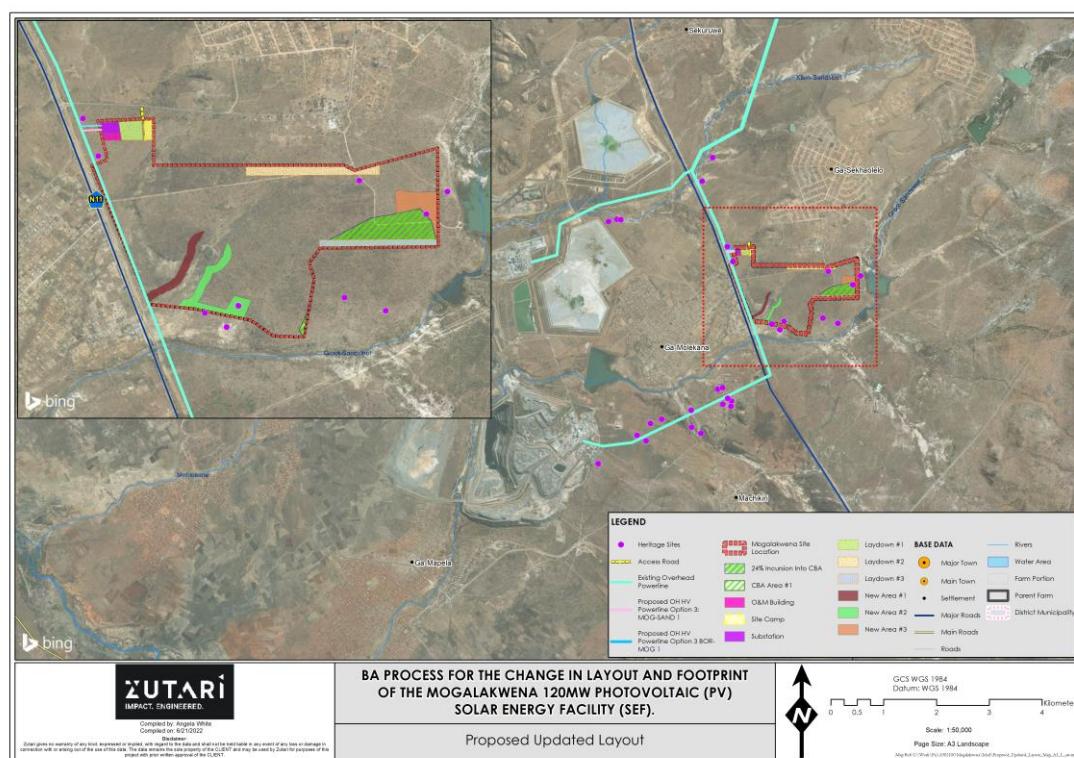
- Develop the market for platinum group metals through the commercial-scale use of environmentally-friendly hydrogen fuel cells;
- Build company experience and repeatable processes in preparation for the anticipated further installation of solar PV generation equipment near the mine and, potentially, at other operations owned by the company;
- Empower a broader group of people and facilitate local community upliftment by ensuring appropriate local community participation through:
 - active participation and skills transfer;
 - shareholding;



- job creation for local community members;
 - local procurement; and
 - corporate social investment expenditure into projects for the local community.
- procure a cost-effective project, that provides increased energy cost certainty over time;
 - diversify the energy mix of the Mogalakwena Mine; and
 - reduce the environmental impact of the Mogalakwena Mine.

AAP selected a portion of land for the proposed project that is in close proximity to the substations at the mine. Figure 1 shows the proposed location for the project.

Figure 1: Locality of the site for the proposed project



One of the ways in which social risk can be managed is by conducting a social impact assessment (SIA). Such an assessment can assist with identifying possible social impacts and risks. Disregarding social impacts can alter the cost-benefit equation of



development and in some cases even undermine the overall viability of a project. A proper social impact assessment can have many benefits for a proposed development (UNEP, 2002) such as:

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

Zutari appointed Equispectives Research and Consulting Services to investigate potential social impacts as part of the Environmental Impact Assessment study for the proposed project. The EIA was approved in December 2021. Subsequently, the project footprint has changed and this report represents the findings and recommendations of the social impact assessment for the new footprint.



2 Scope of Work

The purpose of the SIA is to provide input to the assessment of impacts of the proposed increase in the project's footprint.

The scope of work included:

- Undertake a social impact assessment for proposed footprint expansion of the solar plant and decrease in length of the transmission lines;
- Deliver a social impact assessment report, including Social Impact Management Plan (SIMP).



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.

3.1 Assumptions and limitations

The following assumptions and limitations were relevant:

1. This report is an update of the SIA conducted in October 2021. It is based on existing data and informed by the public consultation process conducted by Zutari up to the date of release of this report. Stakeholder consultation to inform the SIA and to validate the findings from a community perspective for the original SIA were conducted as part of the public consultation process performed by Zutari. Further stakeholder engagement will be conducted parallel with the stakeholder engagement required as part of the proposed change to the footprint of the project.
2. 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, droughts or economic conditions. Therefore, it is 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. In addition, it is also important to manage social impacts for the life of the project, especially in the light of the changing social environment.
3. Social impacts can be felt on an actual or perceptual level, and therefore it is not always straightforward to measure the impacts quantitatively.
4. Social impacts commence when the project enters the public domain. Some of these impacts will occur irrespective of whether the project continues or not, and other impacts have already started. These impacts are difficult to mitigate and some would require immediate action to minimise the risk.



5. 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 section of the report.
6. Social impacts are not site-specific, but take place in the communities surrounding the proposed development.

3.2 Social Impact Assessment Model

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.

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

- 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.

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 fit 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. Alignment with the Anglo-American Social Way has been indicated in Section 7.3 of the report



3.3 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, Zutari's public consultation process and information from reputable sources on the World Wide Web.

3.4 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 primary and secondary (desk) research. Qualitative and quantitative data were used for the secondary research.

The layperson sometimes criticises 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 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 is 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 makes it easier for a person with a natural or physical sciences background to relate to. This approach emphasises quantification in the collection and analysis of data. Data collection take 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).

Although in theory the qualitative phase of this project could be followed by a quantitative phase, for a number of reasons it was not done. A quantitative phase would be more resource intensive in terms of labour, time and cost and the incremental precision obtained in terms of generalisability would not warrant the additional investment. Due to the strong emotional component relating to the perceived impacts, respondents may intentionally magnify the intensity of the impacts or indicate all impacts are equally severe in an attempt to bias the results in their favour, which will reduce the utility of quantitative results as part of the primary research process.

3.5 Ethical issues

The most basic principle of research is that participants should not be harmed by participation in the research project. It is important that research not only does no



harm, but also potentially contributes to the wellbeing of others. At times this might place a researcher in a difficult position – what is beneficial to one group may not be beneficial to another (Bless, Higson-Smith & Kagee, 2006). Furthermore, an individual has the autonomy to decide whether to participate in research or not. No person should be forced, either overtly or covertly, to participate in research. Other important principles include justice (based on the assumption that all people are equals), fidelity (keeping promises or agreements, specifically between the researcher and the participant) and respect for participants' rights and dignity. In addition to these overarching ethical principles, important ethical principles that should be met are informed consent, confidentiality, anonymity and discontinuance. This is in line with international as well as national research practice such as the World Association for Market, Social and Opinion Researchers (ESOMAR) and Southern African Marketing Research Association (SAMRA) codes of conduct. The researcher has an ethical obligation to develop well-designed projects and execute them with care. Researchers are not allowed to change their data or observations and should report on technical shortcomings, failures, limits of the study, negative findings, and methodological constraints. The honest and accurate reporting of data is also an essential component of scientifically accurate and ethically legitimate research and conclusions should be supported by data.



4 Policy and Planning Environment

Legislation and policies reflect societal norms and values. Therefore, the legal and policy context plays an important role in identifying and assessing the potential social impacts associated with a proposed development.

Policy review provides an insight into government socio-economic objectives, plans, and applicable legislature. This assists in determining the importance and alignment of the project regarding the developmental objectives of various government spheres.

4.1 National Energy Act (Act No 34 of 2008)

The National Energy Act was promulgated in 2008 (Act No 34 of 2008). One of the objectives of the Act was to promote diversity of supply of energy and its sources. In this regard, the preamble makes direct reference to renewable resources, including solar and wind:

“To ensure that diverse energy resources are available, in sustainable quantities, and at affordable prices, to the South African economy, in support of economic growth and poverty alleviation, taking into account environmental management requirements (...); to provide for (...) increased generation and consumption of renewable energies...” (Preamble).

4.2 White Paper on the Energy Policy of the Republic of South Africa

Investment in renewable energy initiatives is supported by the White Paper on Energy Policy for South Africa (December 1998). In this regard the document notes:

“Government policy is based on an understanding that renewables are energy sources in their own right, are not limited to small-scale and remote applications, and have significant medium and long-term commercial potential”.

“Renewable resources generally operate from an unlimited resource base and, as such, can increasingly contribute towards a long-term sustainable energy future”.



The support for renewable energy policy is guided by a rationale that South Africa has a very attractive range of renewable resources, particularly solar and wind. In addition, renewable applications are in fact the cheapest energy service in many cases; more so when social and environmental costs are considered.

Government policy on renewable energy is concerned with meeting the following challenges:

- Ensuring that economically feasible technologies and applications are implemented.
- Ensuring that an equitable level of national resources is invested in renewable technologies, given their potential, and compared to investments in other energy supply options; and
- Addressing constraints on the development of the renewable industry.

The White Paper acknowledges that South Africa has neglected the development and implementation of renewable energy applications, even though the country's renewable energy resource base is extensive, and many appropriate applications exist. The White Paper further notes that renewable energy applications have specific characteristics that need to be considered. Advantages include:

- Minimal environmental impacts in operation in comparison with traditional supply technologies; and
- Generally lower running costs, and high labour intensities.

Disadvantages include:

- Higher capital costs in some cases.
- Lower energy densities; and
- Lower levels of availability, depending on specific conditions, especially with sun and wind-based systems.



4.3 White Paper on Renewable Energy

The White Paper on Renewable Energy (November, 2003) (further referred to as the White Paper) supplements the White Paper on Energy Policy, which recognizes that the medium and long-term potential of renewable energy is significant. This Paper sets out Government's vision, policy principles, strategic goals, and objectives for promoting and implementing renewable energy in South Africa. The White Paper notes that while South Africa is well endowed with renewable energy resources that have the potential to become sustainable alternatives to fossil fuels, these have thus far remained largely untapped. As signatory to the Kyoto Protocol¹, Government is resolute to realise the country's commitment to reducing greenhouse gas emissions. Therefore, Government has committed itself to the development of a framework in which a national renewable energy framework can be established and operate. South Africa is also a signatory of the Copenhagen Accord, a document that delegates at the 15th session of the Conference of Parties (COP 15) to the United Nations Framework Convention on Climate Change agreed to "take note of" at the final plenary on 18 December 2009. The accord endorses the continuation of the Kyoto Protocol and confirms that climate change is one of the greatest challenges facing the world. In terms of the accord South Africa committed itself to a reduction target of 34% compared to business as usual.

Apart from the reduction of greenhouse gas emissions, the promotion of renewable energy sources is aimed to ensure energy security through the diversification of supply (in this regard, also refer to the objectives of the National Energy Act). Government's long-term goal is the establishment of a renewable energy industry producing modern energy carriers that will offer in future years a sustainable, fully non-subsidised alternative to fossil fuels.

¹ The Kyoto Protocol is a protocol to the United Nations Framework Convention on Climate Change (UNFCCC), aimed at fighting global warming. The UNFCCC is an international environmental treaty with the goal of achieving "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system". The Protocol was initially adopted on 11 December 1997 in Kyoto, Japan and entered into force on 16 February 2005. As of November 2009, 187 states have signed and ratified the protocol (https://unfccc.int/kyoto_protocol.)



4.4 Integrated Energy Plan (2016)

The development of a National Integrated Energy Plan (IEP) was envisaged in the White Paper on the Energy Policy of the Republic of South Africa of 1998 and, in terms of the National Energy Act, 2008 (Act No. 34 of 2008), the Minister of Energy is mandated to develop and, on an annual basis, review and publish the IEP in the Government Gazette. The purpose of the IEP is to provide a roadmap of the future energy landscape for South Africa which guides future energy infrastructure investments and policy development. The IEP notes that South Africa needs to grow its energy supply to support economic expansion and in so doing, alleviate supply bottlenecks and supply-demand deficits. In addition, it is essential that all citizens are provided with clean and modern forms of energy at an affordable price. As part of the Integrated Energy Planning process, eight key objectives were identified, namely:

- Objective 1: Ensure security of supply.
- Objective 2: Minimise the cost of energy.
- Objective 3: Promote the creation of jobs and localisation.
- Objective 4: Minimise negative environmental impacts from the energy sector.
- Objective 5: Promote the conservation of water.
- Objective 6: Diversify supply sources and primary sources of energy.
- Objective 7: Promote energy efficiency in the economy; and
- Objective 8: Increase access to modern energy.

The IEP provides an assessment of current energy consumption trends within different sectors of the economy (i.e., agriculture, commerce, industry, residential and transport) and uses this information to identify future energy requirements, based on different scenarios. The scenarios are informed by different assumptions on economic development and the structure of the economy and consider the impact of key



policies such as environmental policies, energy efficiency policies, transport policies and industrial policies, amongst others.

Based on this information the IEP then determines the optimal mix of energy sources and technologies to meet those energy needs in the most cost-effective manner for each of the scenarios. The associated environmental impacts, socio-economic benefits and macroeconomic impacts are analysed. The IEP is focused on determining the long-term energy pathway for South Africa, considering a variety of factors which are embedded in the eight objectives.

The IEP notes that South Africa should continue to pursue a diversified energy mix which reduces reliance on a single or a few primary energy sources. In terms of renewable energy, the document refers to wind and solar energy. The document does, however, appear to support solar over wind noting that solar PV and CSP with storage present excellent opportunities to diversify the electricity mix, to produce distributed generation and to provide off-grid electricity. Solar technologies also present the greatest potential for job creation and localisation. Incentive programmes and special focused programmes to promote further development in the technology, as well as solar roll-out programmes, should be pursued.

The IEP notes that a diversified energy mix with a reduced reliance on a single or a few primary energy sources should be pursued. In terms of renewable energy, wind and solar are identified as the key options.

4.5 Integrated Resource Plan (2019)

The NDP envisages that, by 2030, South Africa will have an energy sector that provides reliable and efficient energy service at competitive rates, is socially equitable through expanded access to energy at affordable tariffs and that is environmentally sustainable through reduced pollution.

The Integrated Resource Plan (IRP) 2010–2030, promulgated in March 2011, updated in October 2019, represents an electricity infrastructure development plan for South Africa based on least-cost supply and demand balance considering security of supply and the environment (minimize negative emissions and water usage). Since the



promulgated IRP 2010–2030 in 2011, a total 6 422MW under the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP) has been procured, with 3,272MW operational and made available to the grid. At the time of promulgation, it was envisaged that the IRP would be a “living plan” to be frequently revised by the then Department of Energy (DoE). Since the promulgation of the IRP in March 2011, several assumptions have changed, including electricity demand projections, Eskom’s existing plant performance, and new technology costs. The 2019 IRP notes that the Gross Domestic Product (GDP) for the period 2010– 2016 was significantly lower than the GDP projections assumed in the promulgated IRP 2010–2030. The expected electricity demand as forecast in the promulgated IRP 2010–2030 did not materialise and was updated accordingly. In so doing the 2019 IRP assesses the electricity demand for the period 2017-2050. Three demand scenarios were assessed, namely an upper, median, and lower forecast based on varying GDP growth rates. The median scenario also considered the assumed change in the structure of the economy where energy-intensive industries make way for less intensive industries. The lower scenario considered lower economic growth linked to possible downgrading decisions by rating agencies. The 2019 IRP also considered the externality costs associated with Green House Gas (GHG) emissions, specifically the negative externalities-related air pollution caused by pollutants such as nitrogen oxide (NOx), sulphur oxide (SOx), particulate matter (PM) and mercury (Hg). These externality costs reflect the cost to society because of the activities of a third party resulting in social, health, environmental, degradation or other costs.

The scenarios were analysed in three timeframes, namely 2017–2030, 2031–2040 and 2041–2050. The period 2021–2030 is termed a “medium-to-high” period of certainty, with new capacity requirements driven by the decommissioning of old Eskom power plants and marginal demand growth. While demand and technology costs are likely to change, the decommissioning of old plants will result in the requirements for additional capacity.

The period 2031–2040 is termed an “indicative period”, as the uncertainty regarding the assumptions begins to increase. The output for this period is relevant to the



investment decisions of the 2021–2030 period because it provides information needed to understand various future energy mix paths and how they may be impacted by the decisions made today. The period 2041–2050 is even more uncertain than the period before 2040.

The IRP 2019 Report concludes that the scenario of Renewable Energy (RE) without annual build limits provides the least-cost path up to 2050. The document notes that a detailed analysis of the appropriate level of penetration of RE in the South African national grid is required to better understand the technical risks and mitigations required to ensure security of supply is maintained during the transition to a low-carbon future.

4.6 National Development Plan

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

The NDP identifies nine key challenges and associated remedial plans. Managing the transition towards a low carbon national economy is identified as one of the nine key national challenges. Expansion and acceleration of commercial renewable energy is identified as a key intervention strategy.

4.7 Sustainable Development Goals

All 189 Members States of the United Nations, including South Africa, adopted the United Nations Millennium Declaration in September 2000 (UN, 2000). The commitments made by the Millennium Declaration are known as the Millennium Development Goals (MDGs), and 2015 was targeted as the year to achieve these goals. The United Nations Open Working Group of the General Assembly identified seventeen sustainable development goals, built on the foundation of the MDGs as the next global development target (UN, 2014). The sustainable development goals



include aspects such as ending poverty, addressing food security, promoting health, wellbeing and education, gender equality, water and sanitation, economic growth and employment creation, sustainable infrastructure, reducing inequality, creating sustainable cities and human settlements, and addressing challenges in the physical environment such as climate change and environmental resources (UN, 2014). These aspects are included in the NPD, and it can therefore be assumed that South Africa's development path is aligned with the international development agenda regarding renewable energy.

4.8 National Infrastructure Plan

The South African Government adopted a National Infrastructure Plan in 2012. The aim of the plan is to transform the economic landscape while simultaneously creating significant numbers of new jobs and strengthening the delivery of basic services. The plan also supports the integration of African economies. The Government plan to invest significantly in infrastructure development in South Africa. The aim of the investments is to improve access by South Africans to healthcare facilities, schools, water, sanitation, housing, and electrification. The plan also notes that investment in the construction of ports, roads, railway systems, **electricity plants**, hospitals, schools, and dams will contribute to improved economic growth. Eighteen Strategic Integrated Projects (SIPs) have been identified to be included as part of the implementation of the plan.

5 International standards

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

5.1 International Social Performance Standards/Initiatives

There is a profusion of global initiatives aiming at assisting companies to make their operations more sustainable. Human rights, environmental protection and social justice are gaining support from industry.



Many of the multi-lateral funding agencies such as the World Bank Group, including the International Finance Corporation (IFC), have social standards that they must uphold. The IFC Performance Standards (PSs) relevant to the social environment are the following:

1. Environmental and Social PS 1: Assessment and Management of Environmental and Social Risks and Impacts
2. Environmental and Social PS 2: Labour and Working Conditions
3. Environmental and Social PS 4: Community Health and Safety
4. Environmental and Social PS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
5. Environmental and Social PS 8: Cultural Heritage (IFC, 2012)
6. IFC Stakeholder Engagement Good Practice Handbook for Companies doing Business in Emerging Markets (2007))

Issues such as gender, climate change, water and human rights are addressed across the standards.). Environmental and social risks and impacts must be managed by using an Environmental and Social Management System. The standard applies to all the activities funded by the IFC for the duration of the loan period.

5.1.1 International Principles for SIA

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

1. Development projects should be broadly acceptable to the members of those communities likely to benefit from, or be affected by, the planned intervention.



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

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



6 Receiving environment

When viewing the environment from a socio-economic perspective the question can be asked what exactly the social environment is. Different definitions for social environment exist, but a clear and comprehensive definition that is widely accepted remains elusive. Barnett & Casper (2001) offers the following definition of human social environment:

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

Environment-behaviour relationships are interrelationships (Bell, Fisher, Baum & Greene, 1996). The environment influences and constrains the behaviour of people, but behaviour also leads to changes in the environment. The impacts of a project on people can only be truly understood if their environmental context is understood. The



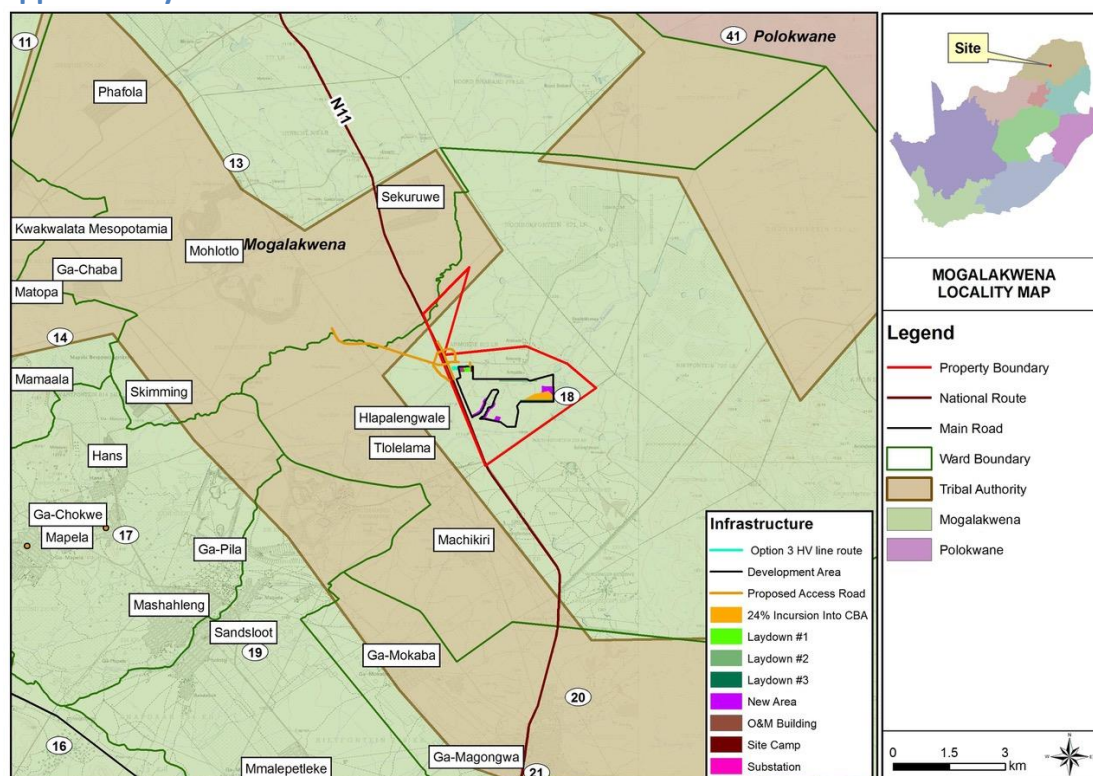
baseline description of the social environment will include a description of the area within a provincial, district and local context that will focus on the identity and history of the area as well as a description of the population of the area based on a number of demographic, social and economic variables.

Zutari (2020) compiled a social baseline description of the area during the scoping phase of the EIA, and this data were integrated in the description of the receiving environment.

6.1 Description of the area

The proposed project will be located in Wards 18 and 19 of the Mogalakwena Local Municipality that falls under the Waterberg District Municipality in the Limpopo Province. 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 project in municipal context. The purple boundary is the new layout of the PV plant. The red boundary is the previously approved layout.



The **Limpopo Province** is South Africa's most northern province and covers an area of 125 754 km² (www.municipalities.co.za). It shares an international border with



Mozambique, Zimbabwe and Botswana. It also borders the Gauteng, Mpumalanga and North West Provinces. The capital of the province is Polokwane. Other major cities and towns include Bela-Bela, Lephalale, Makhado, Musina, Thabazimbi and Tzaneen.

Mining is the main driver of the economy and mineral deposits include platinum-group metals, iron ore, chromium, high and middle-grade coking coal, diamonds, antimony, phosphate, and copper. Mineral reserves include gold, emeralds, scheelite, magnetite, vermiculite, silicon and mica.

Crops grown in Limpopo include sunflowers, cotton, maize, peanuts, bananas, litchis, pineapples, mangoes, pawpaws, a variety of nuts, as well as tea and coffee. The Bushveld is known for cattle, where controlled hunting is often combined with ranching.

The Limpopo Province is linked to the Maputo Development Corridor through the Phalaborwa Spatial Development Initiative, which is a network of road and rail corridors connecting to the major seaports with the vision to open up the province for trade and investment. This is complimented by the presence of airports in major centres of the province (Zutari, 2020).

Limpopo is divided into five districts, namely Capricorn, Mopani, Sekhukune, Vhembe and Waterberg.

The **Waterberg District Municipality** is located in the western part of the Limpopo Province (www.municipalities.co.za) and covers an area of 44,913 km². It shares a border with the North West and Gauteng Provinces. It is the biggest district in the province and shares five border control points with Botswana. Main towns in the area are Amandelbult Mine Town, Bela-Bela, Lephalale, Modimolle, Mokopane, Mookgophong, Pienaarsrivier, Thabazimbi and Vaalwater. The main economic sectors are mining, agriculture and tourism. The district consists of five local municipalities, namely Bela-Bela, Lephalale, Modimolle-Mookgophong, Mogalakwena and Thabazimbi.



The **Mogalakwena Local Municipality** covers an area of 6,156 km² (www.municipalities.co.za). It was established on 5 December 2000 when the Greater Potgietersrus, Bakenberg and Koedoesrand/Rebone local authorities were amalgamated to form the new municipality.

The municipality consists largely of a tribal/traditional settlement type and is characterised by high levels of unemployment and poverty. The legitimacy of community leadership structures and traditional authority is often contested as these are not gazetted by the Government, and there is conflict between grassroots community interest groups in terms of benefit sharing, which may be driven by personal interest (Zutari, 2020). Community representative structures are fluid, and the area is characterised by unplanned and opportunistic urban expansion. Informal settlements are expanding in both urban and rural areas, and four of the six settlements identified are adjacent to the Mogalakwena Platinum mine, namely: Ga-Machikiri, Ga-Puka (Rooibokfontein), Ga-Sekhaolelo (Armoede) and Mapela next to Skimming.

The Mogalakwena LM is regarded as an unstable municipality and has collapsed in 2014 (Zutari, 2020). The current management team has the unenviable task to not only repair the functions of the municipality, but also its reputation as the municipality has been pulled into the VBS Mutual Bank scandal by fraud allegations. The municipality is burdened with routine and competing political intrusions that has resulted in an entrenched spiral of institutional damage, rising securitisation, protest and violence, each of which reinforces the other.

Platinum mining is considered key to the economic development in the area, and for communities surrounding the mine, it is one of the few economic opportunities available. As a result, there is a significant expectation for employment and procurement opportunities at the mine (Zutari, 2020).

6.2 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 Limpopo Province, Waterberg District Municipality, Mogalakwena Local Municipality and Wards 13, 14, 17, 18, 19 and 20 of the Mogalakwena Local Municipality.

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 ward level data will be shown for the 2016 ward delineations.

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.

6.2.1 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 on district level ([Table 1](#)), slightly higher than the national average. On a local level the growth in population was below the national average. Population density refers to the number of people per square kilometre and the population density on a national level has increased from 42.45 people per km² in 2011 to 45.63 people per km² in 2016. In the study area the population density has increased since 2011.



Table 1: 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 (%)
Limpopo Province	125,754	5,404,868	5,799,090	42.98	46.11	7.29
Waterberg DM	44,913	679,336	745,758	15.13	16.60	9.78
Mogalakwena LM	6,156	307,682	328,905	49.98	53.43	6.90

The number of households in the study area has increased on all levels (Table 2). On provincial and district level the proportionate increases in households were greater than the increases in population, but not on local level. The average household size has shown a decrease on provincial and district level, which means there are more households, but with less members. On local level the average household size has increased slightly.

Table 2: 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 (%)
Limpopo Province	1,418,102	1,601,083	3.81	3.62	12.90
Waterberg DM	179,866	211,471	3.78	3.53	17.57
Mogalakwena LM	79,395	83,604	3.88	3.93	5.30

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

The total dependency ratio on local level is much higher on local than on district or provincial level (Table 3) and varies by ward. The same trend applies to the youth, aged and employment dependency ratios. Employed dependency ratio refers to the proportion of people dependent on the people who are employed, and not only those of working age. The employed dependency ratio for the Mogalakwena LM and wards



under investigation is higher than on provincial and district. This suggests high levels of poverty in this area.

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

Area	Total dependency	Youth dependency	Aged dependency	Employed dependency
Limpopo Province	67.26	56.79	10.47	83.61
Waterberg DM	55.50	46.45	9.05	75.30
Mogalakwena LM	71.48	58.74	12.74	84.73
Ward 13	86.03	71.38	14.66	90.79
Ward 14	89.73	67.91	21.82	92.67
Ward 17	81.48	65.64	15.84	93.09
Ward 18	72.99	60.08	12.90	86.89
Ward 19	76.16	63.37	12.79	91.57
Ward 20	68.23	57.57	10.67	88.79

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

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

The intensity of poverty experienced refers to the average proportion of indicators in which poor households are deprived (Statistics South Africa, 2014). The intensity of poverty has increased slightly on all levels. The intensity of poverty and the poverty headcount is used to calculate the SAMPI score. A higher score indicates a very poor community that is deprived on many indicators. The SAMPI score has increased on all levels, indicating that households might be getting poorer, especially in the Mogalakwena LM area.



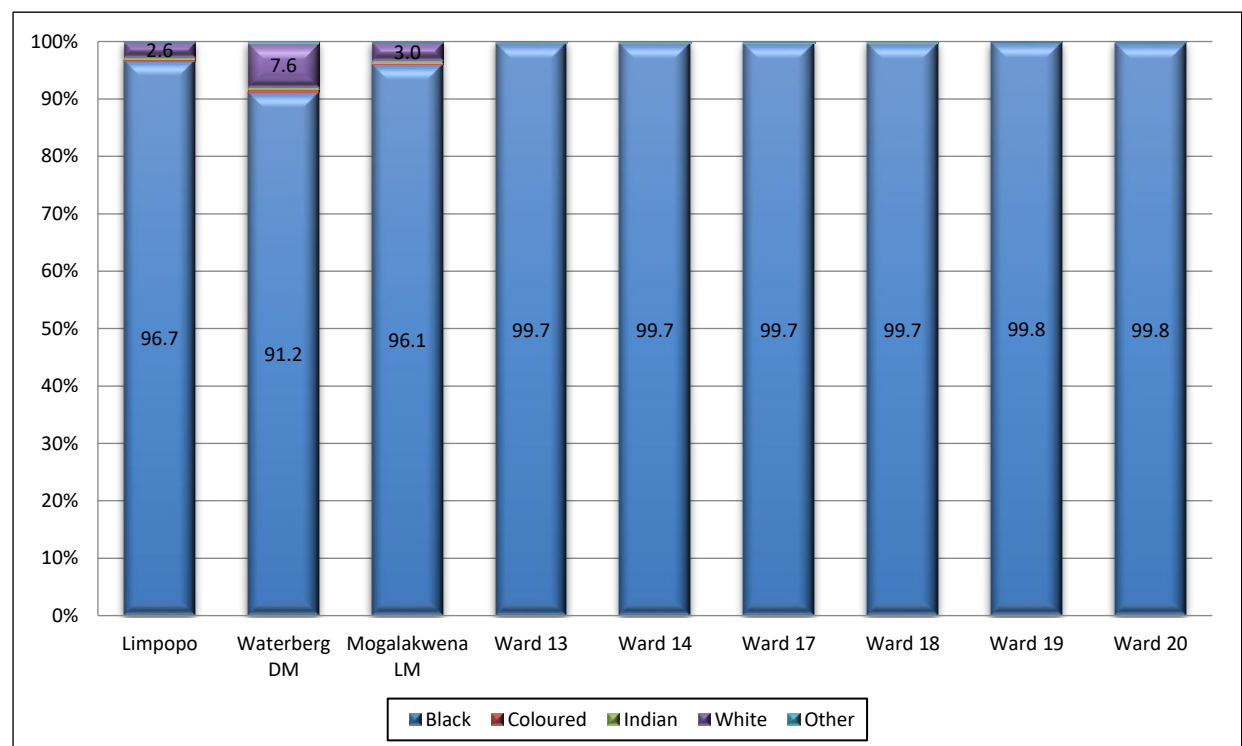
Table 4: Poverty and SAMPI scores (sources: Census 2011 and Community Survey 2016).

Area	Poverty headcount 2011 (%)	Poverty intensity 2011 (%)	SAMPI 2011	Poverty headcount 2016 (%)	Poverty intensity 2016 (%)	SAMPI 2016
Limpopo Province	10.1	41.6	0.042	11.5	42.3	0.049
Waterberg DM	6.5	41.6	0.027	9	42.7	0.038
Mogalakwena LM	7.0	41.2	0.029	11.2	41.3	0.046

6.2.2 Population composition, age, gender and home language

On a ward level more than 99% of the population belong to the Black population group (Figure 3), a much greater proportion than on local, district or provincial level.

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

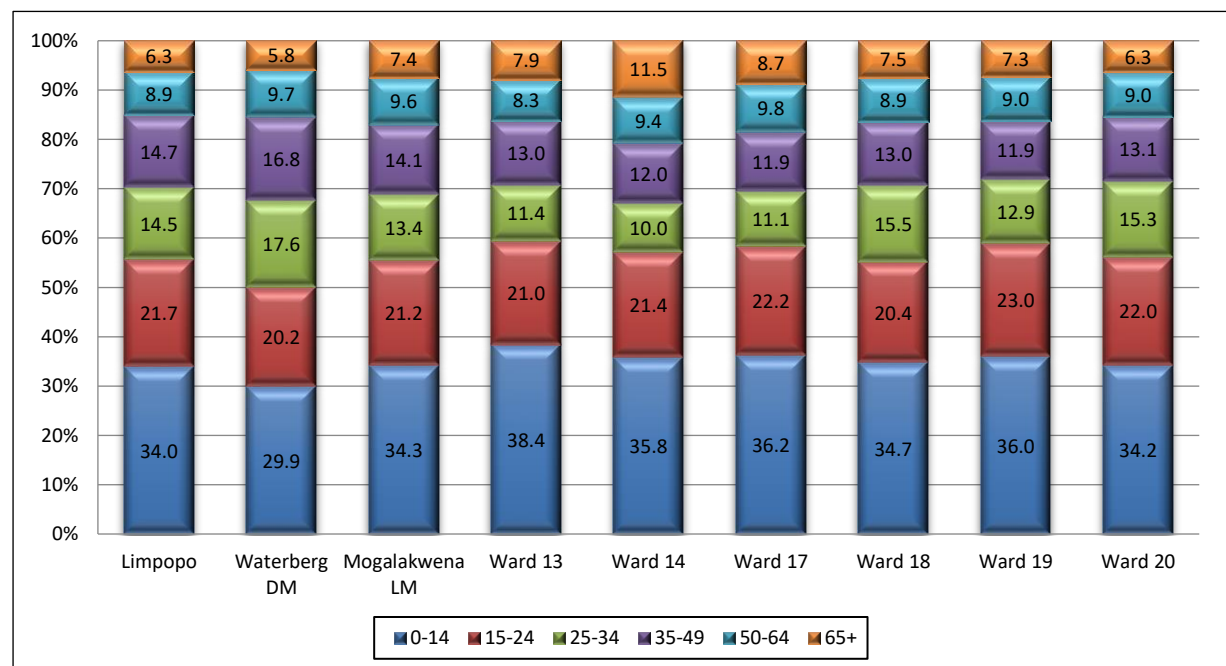


The average age on local level is lower than on district level, but higher than on provincial level (Table 5). On a ward level the average age is lower than on local level, except in Ward 14 where the average age is higher than on district level.

**Table 5: Average age (source: Census 2011).**

Area	Average Age (in years)
Limpopo Province	26.47
Waterberg DM	27.79
Mogalakwena LM	27.08
Ward 13	25.99
Ward 14	28.35
Ward 17	26.92
Ward 18	26.73
Ward 19	26.11
Ward 20	26.16

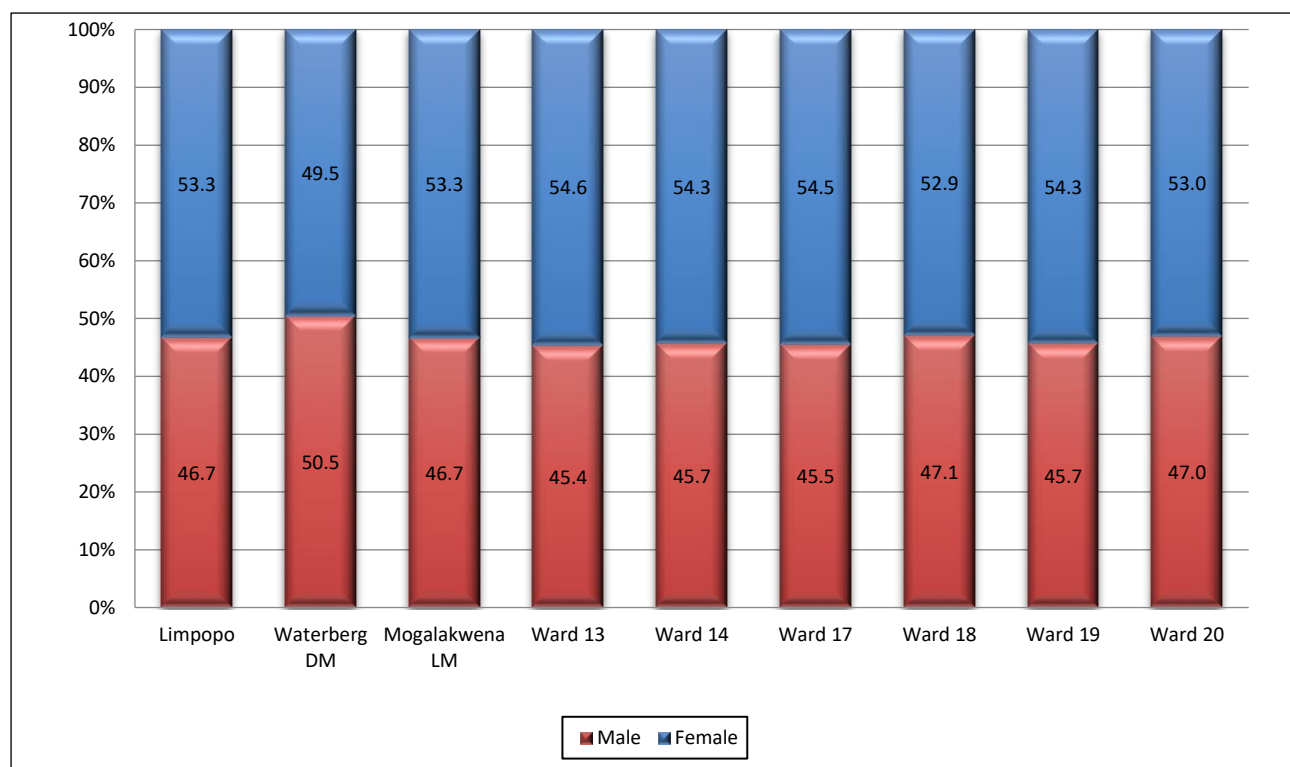
More than a third of the population on ward level is aged 14 years or younger (Figure 4). Ward 14 has the highest proportion of people aged 65 years or older. Such a young population holds the potential for a great future demand in terms of employment and other means of making a livelihood, as well as increased pressure on infrastructure.

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

The sex distribution is more or less equal on district level (Figure 5) but is biased towards females on all other levels. This trend is often observed in rural areas where males tend to migrate to urban areas to look for employment or other means of making a livelihood.



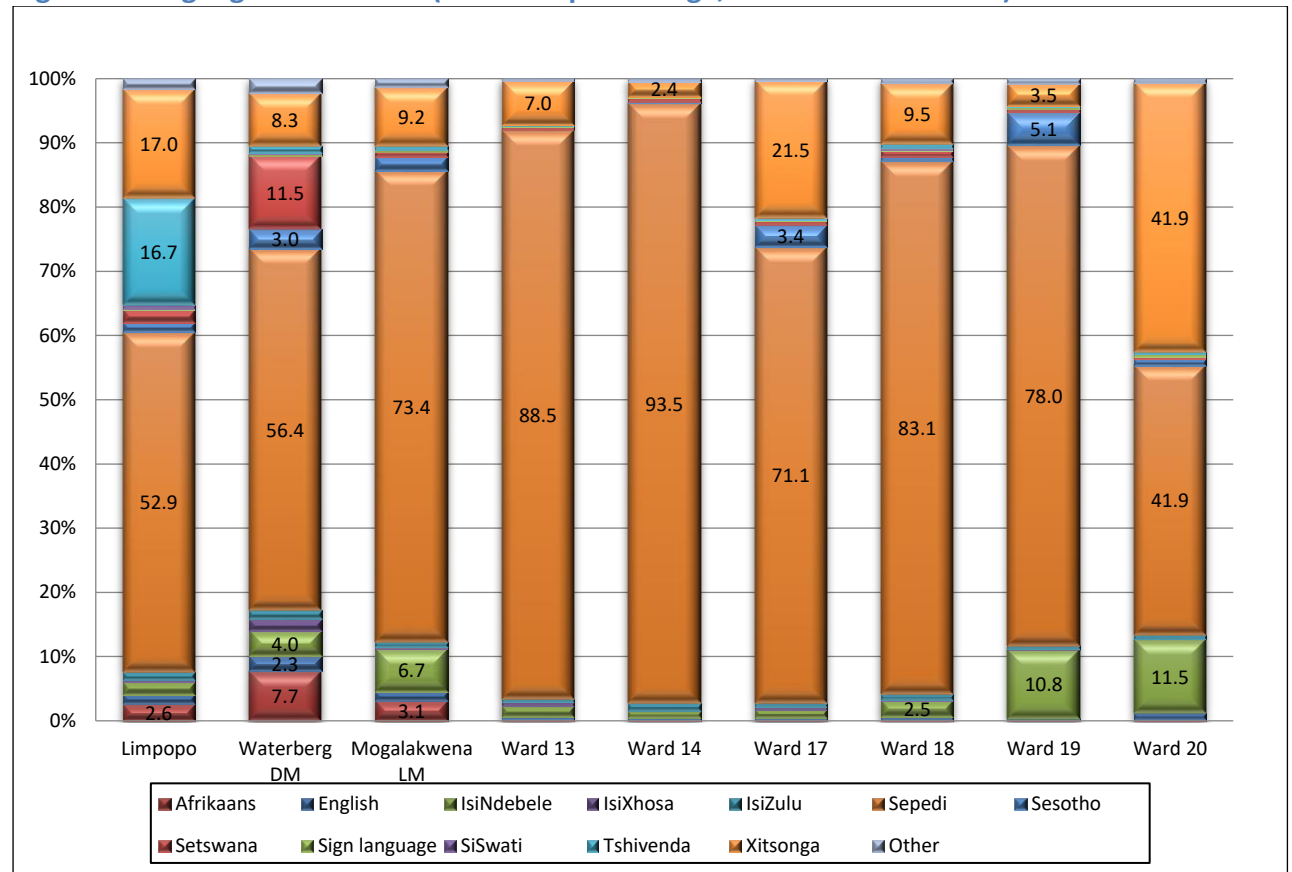
Figure 5: Sex distribution (shown in percentage, source: Census 2011)



Sepedi is the home language of more than 70% of the population in the Mogalakwena LM (Figure 6). The language profiles on a ward level look slightly different from one another with about a fifth of the population in Ward 17 indicating that they have Xitsonga as home language. In Ward 20 there is an equal proportion of people with Sepedi and Xitsonga as home language. Wards 19 and 20 have the highest proportions of people with IsiNdebele as home language. Home language can indicate the degree of cultural diversity in an area.



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

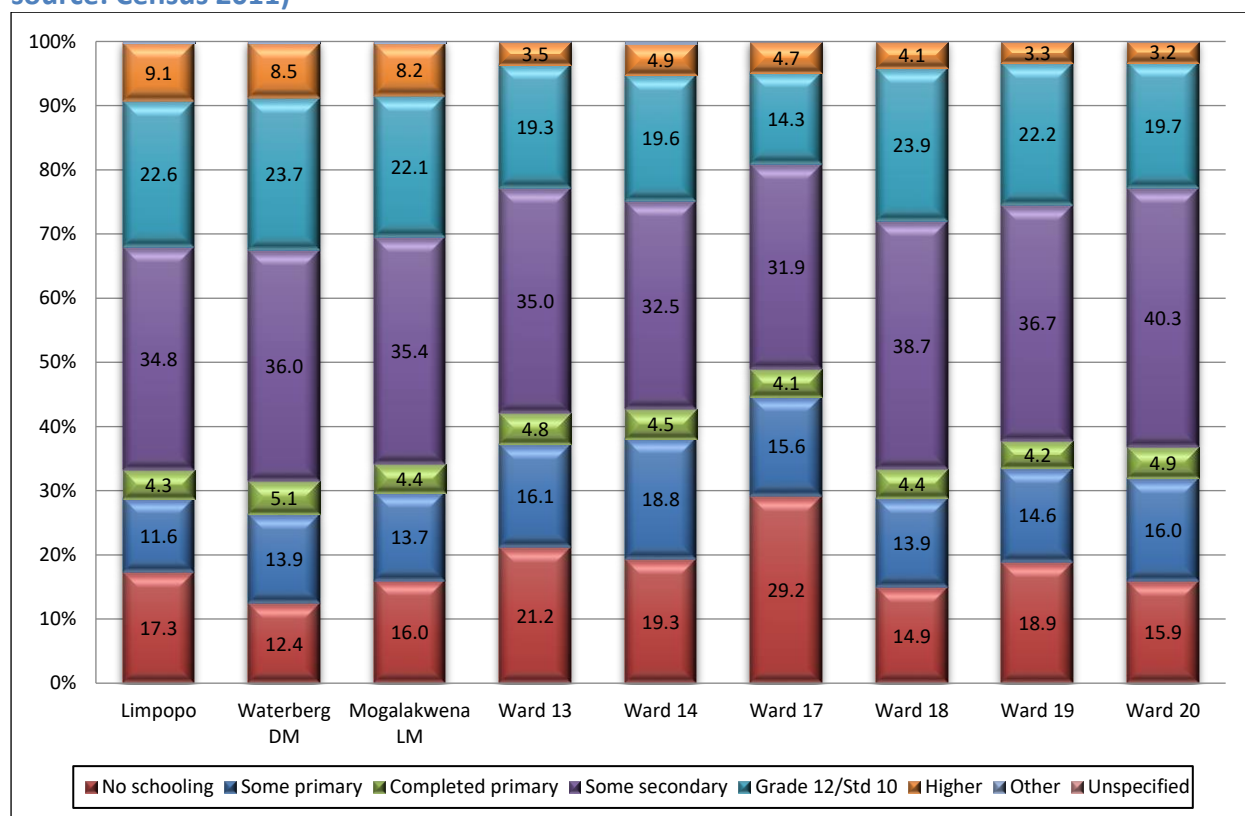


6.2.3 Education

Wards 18 and 19 have the highest proportion of people aged 20 years or older whom have completed an education higher than Grade 12 (Figure 7), while almost 30% of people aged 20 years or older in Ward 17 have received no schooling.



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



6.2.4 Employment, livelihoods and economic activities

Ward 18 has the highest proportion of people aged between 15 – 65 years that are employed (Figure 8), with more than 70% of this group being employed in the formal sector (Figure 9). The level of employment on ward level is much lower than on local, district or provincial level. Ward 20 has the highest level of people employed in the informal sector.



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

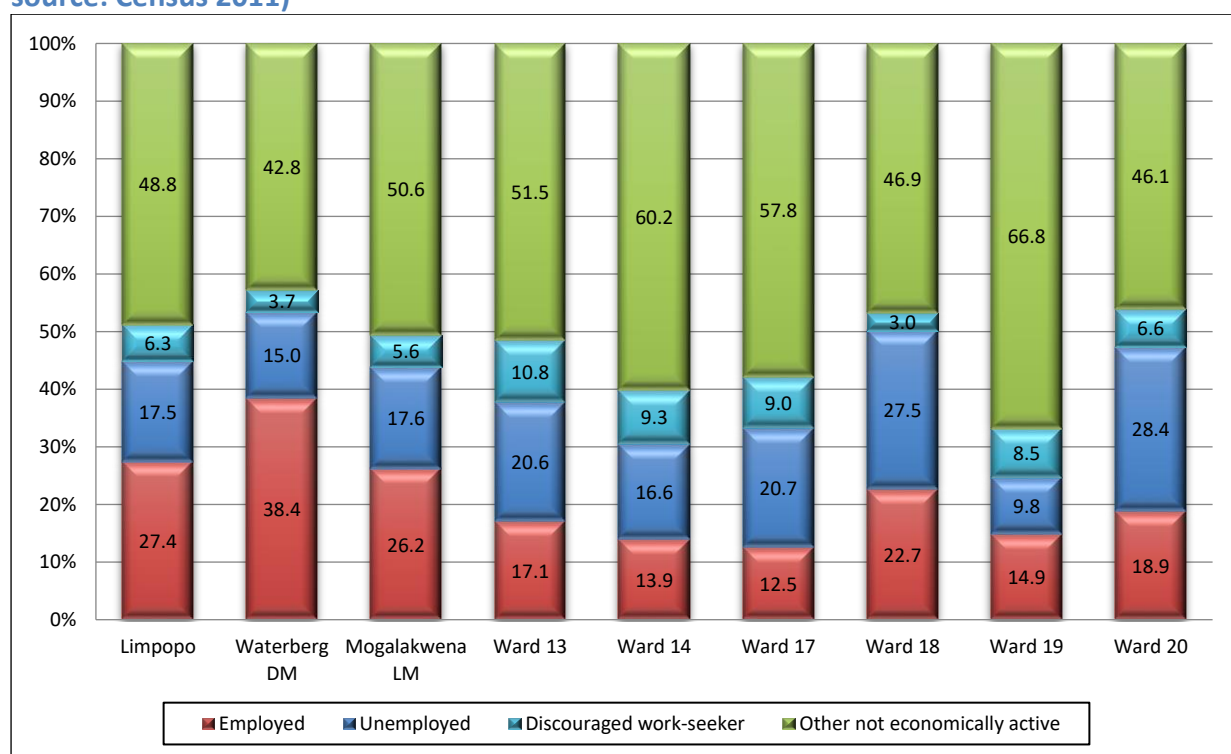
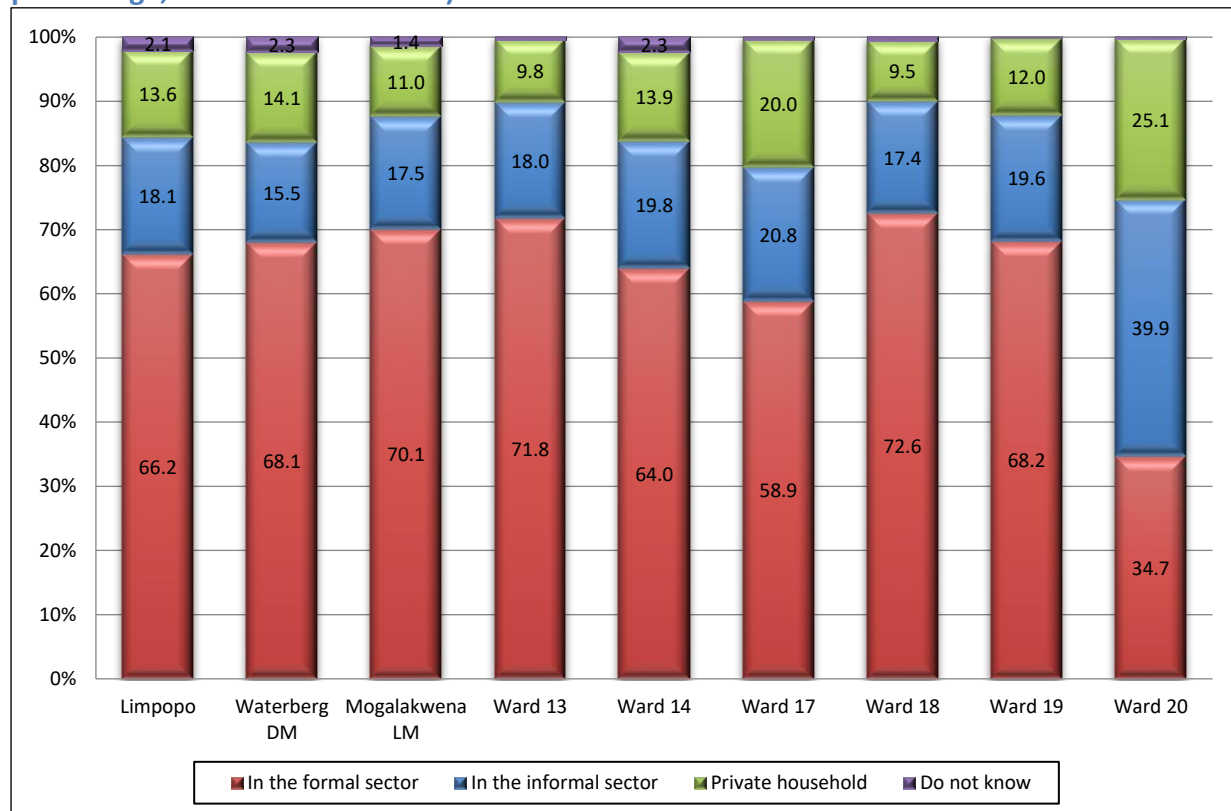


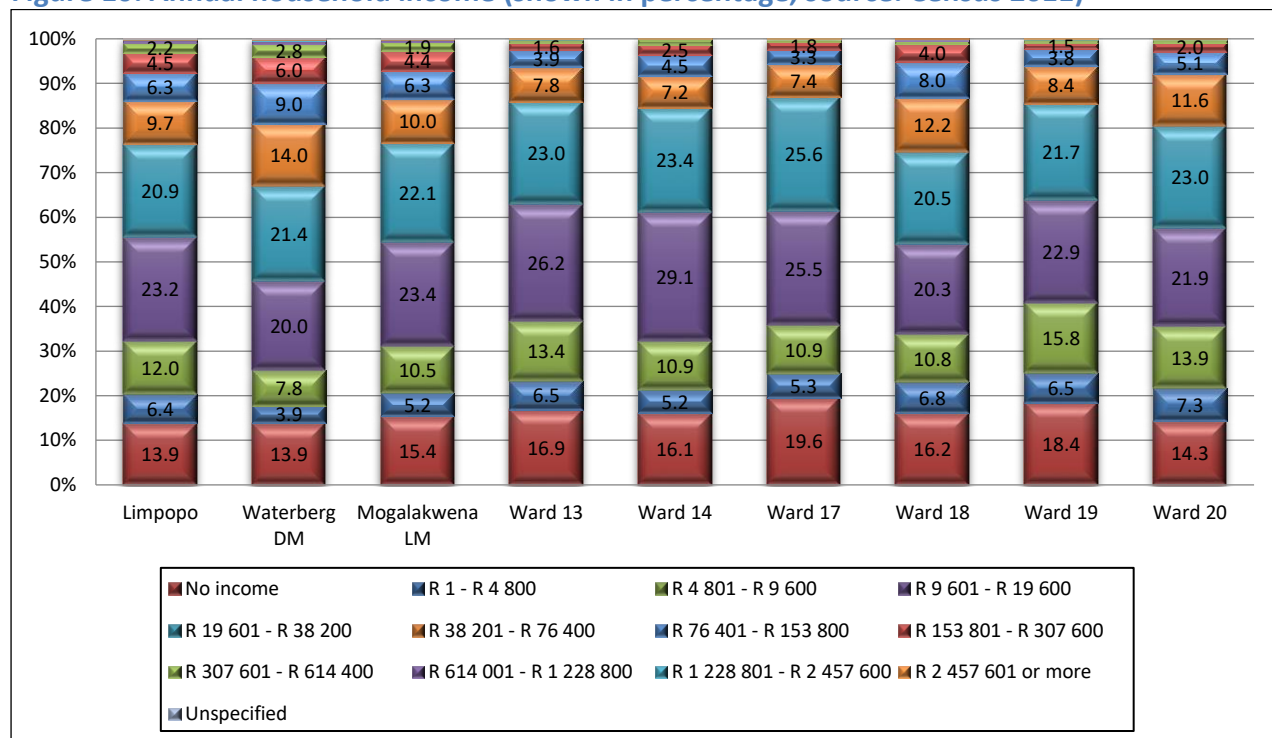
Figure 9: Employment sector (those aged between 15 - 65 years, shown in percentage, source: Census 2011)





The proportion of people with no annual household income is higher on local and ward level than on district and provincial level (Figure 10). More than 60% of the households on a ward level had an annual household income of below R19 601 in 2011, except in Wards 18 and 20, where the proportion was more than 50%.

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



Statistics South Africa (2015) has calculated the Food Poverty Line (FPL) for the Limpopo Province as R338 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 consume 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 Limpopo Province was R485 per capita per month in 2011 and the UBPL R627 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 more households below the poverty lines in the area than who are multi-dimensionally 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 these were to be converted into a Rand value, the poverty line picture may have a closer resemblance to the SAMPI data.

6.2.5 Housing

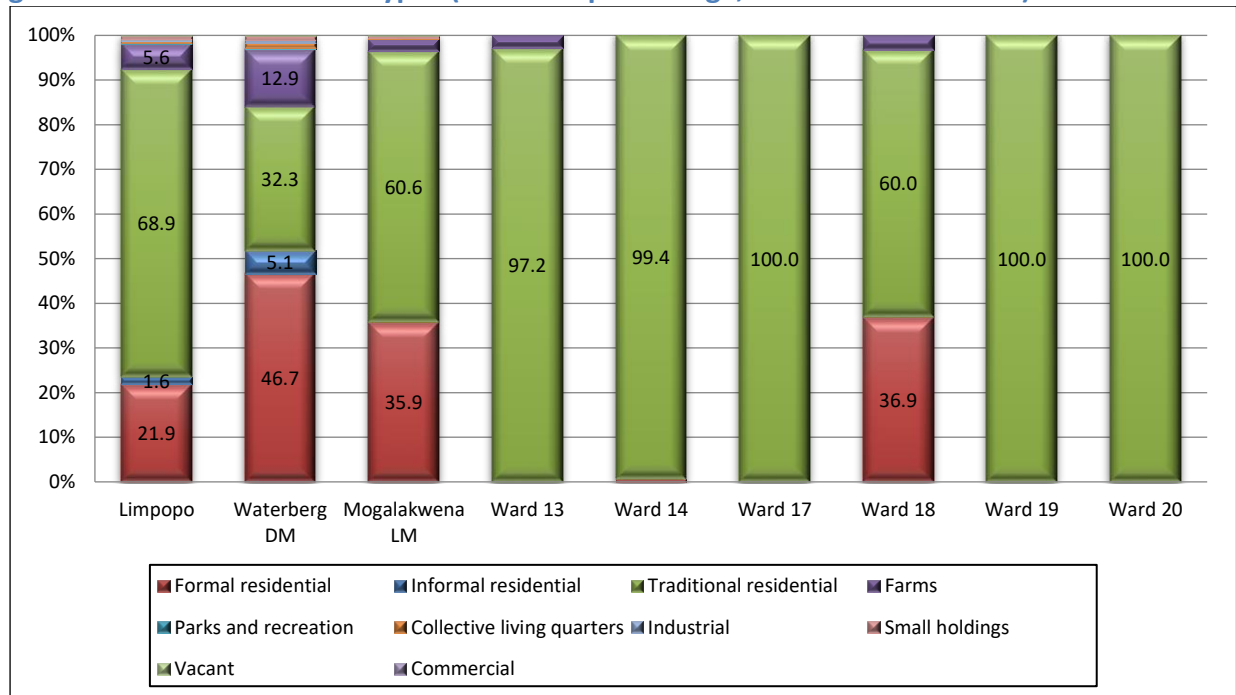
On a ward level, almost all households live in areas under traditional authority, except in Wards 13 and 18 (Table 5). In Ward 18 just over a third of households live in an urban area classified as formal residential (Figure 11).

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

Area	Urban	Tribal/Traditional	Farm
Limpopo Province	20.1	73.4	6.6
Waterberg DM	50.6	35.7	13.7
Mogalakwena LM	29.2	67.9	2.9
Ward 13	0.0	97.2	2.8
Ward 14	0.0	100.0	0.0
Ward 17	0.0	100.0	0.0
Ward 18	36.9	60.0	3.1
Ward 19	0.0	100.0	0.0
Ward 20	0.0	100.0	0.0



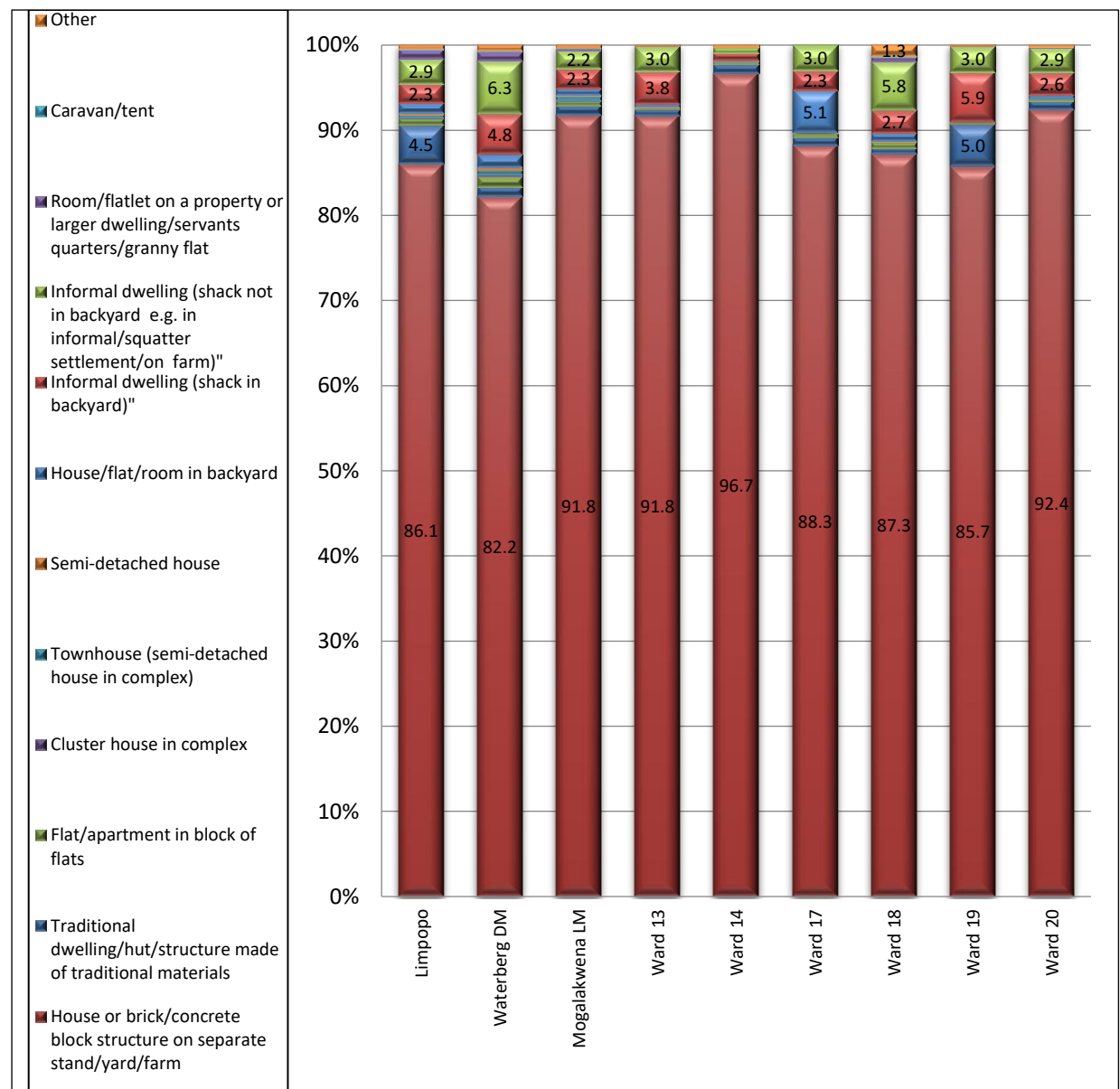
Figure 11: Enumeration area types (shown in percentage, source: Census 2011)



More than 85% of households on ward level live in houses or brick structures on separate stands or yards (Figure 12), with informal dwellings present in all wards to a greater or lesser extent.



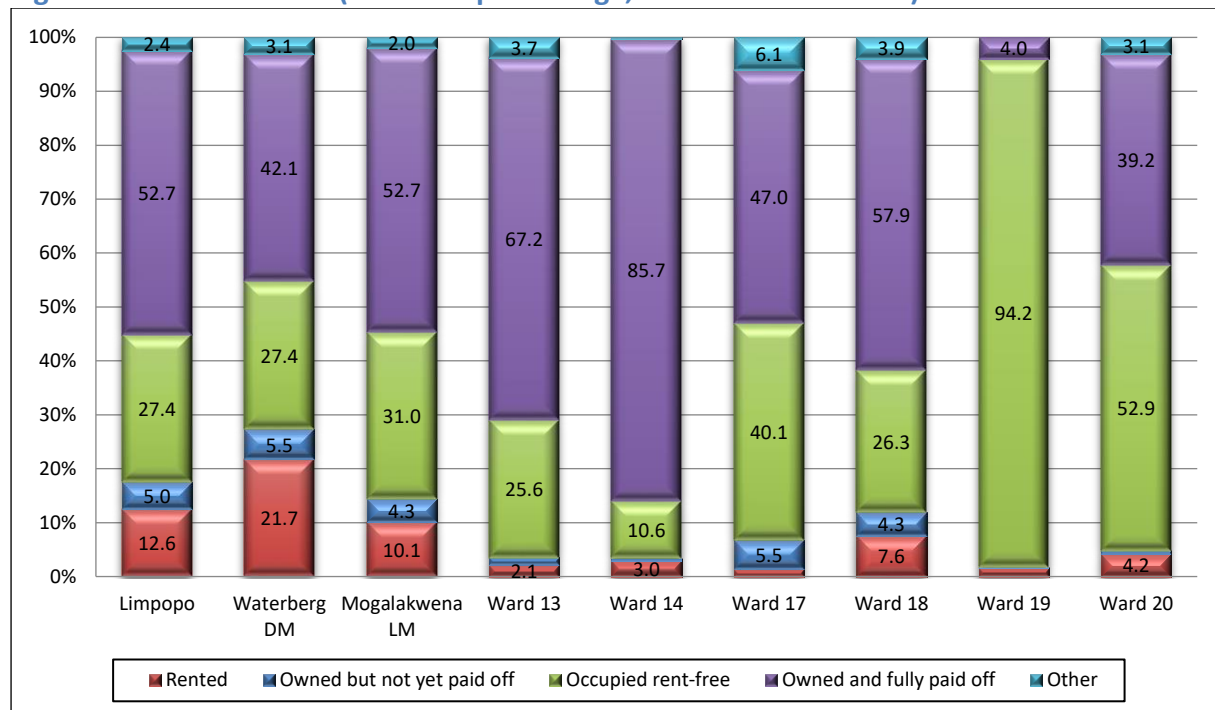
Figure 12: Dwelling types (shown in percentage, source: Census 2011)



Most households occupy their dwellings either rent-free or have paid it off in full (Figure 13). Wards 18 and 20 have the highest incidence of households renting their dwellings.

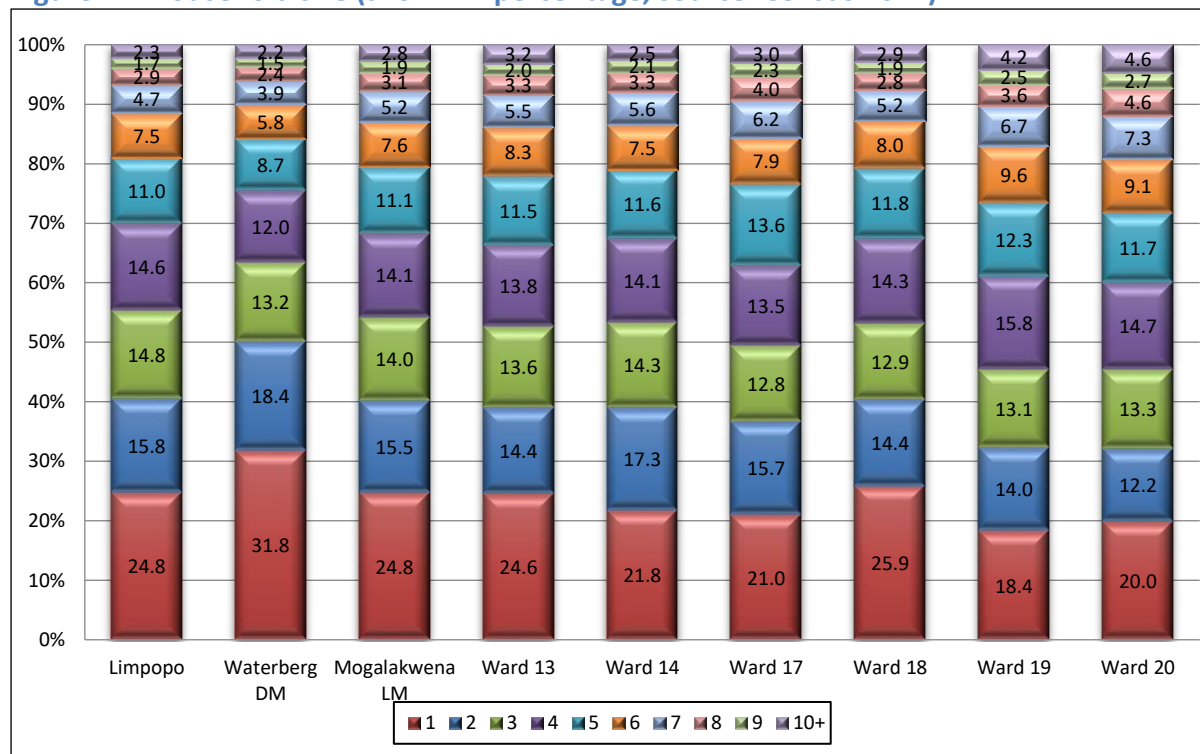


Figure 13: Tenure status (shown in percentage, source: Census 2011)



Households on ward level tend to consist of more members than on local, district or provincial level (Figure 14). Wards 13, 14 and 18 have the highest incidence of households with only one or two members.

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



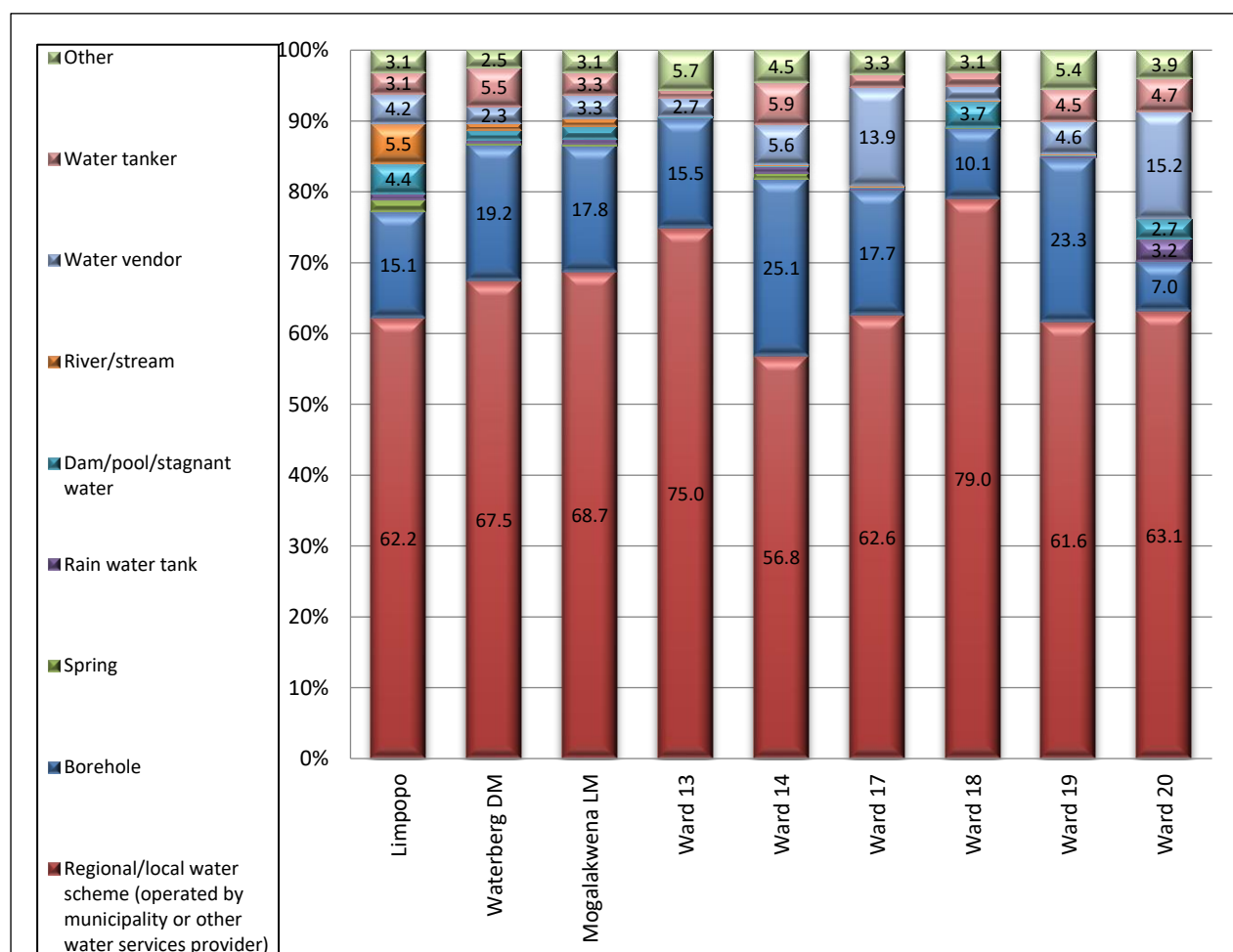


6.2.6 Access to basic services

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.

On a municipal level about two thirds of households get their water from a regional or local water scheme (Figure 15), but on ward level the proportions differ. Wards 13 and 18 have the highest proportion of households with access to water from a regional or local water scheme, while Wards 14 and 19 have the largest proportion of households whose main water source is boreholes. Wards 17 and 20 has the greatest proportion of households that get their water from a water vendor.

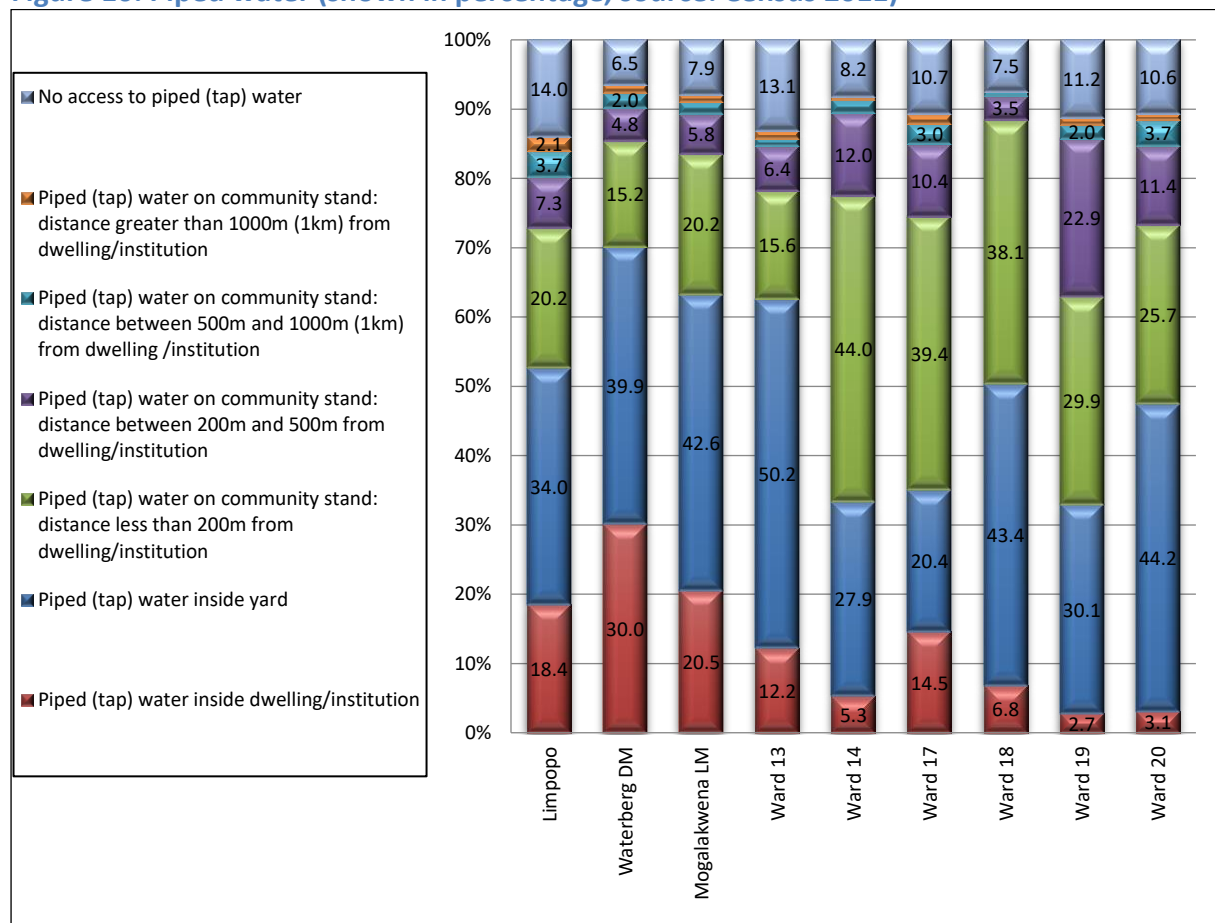
Figure 15: Water source (shown in percentage, source: Census 2011)





The incidence of households with access to piped water inside their dwellings on a ward level is relatively low (Figure 16), with the highest incidence in Wards 13 and 17. Less than half of households on ward level have access to piped water either inside their dwelling or yard, except in Ward 13 where the incidence is just over 60%.

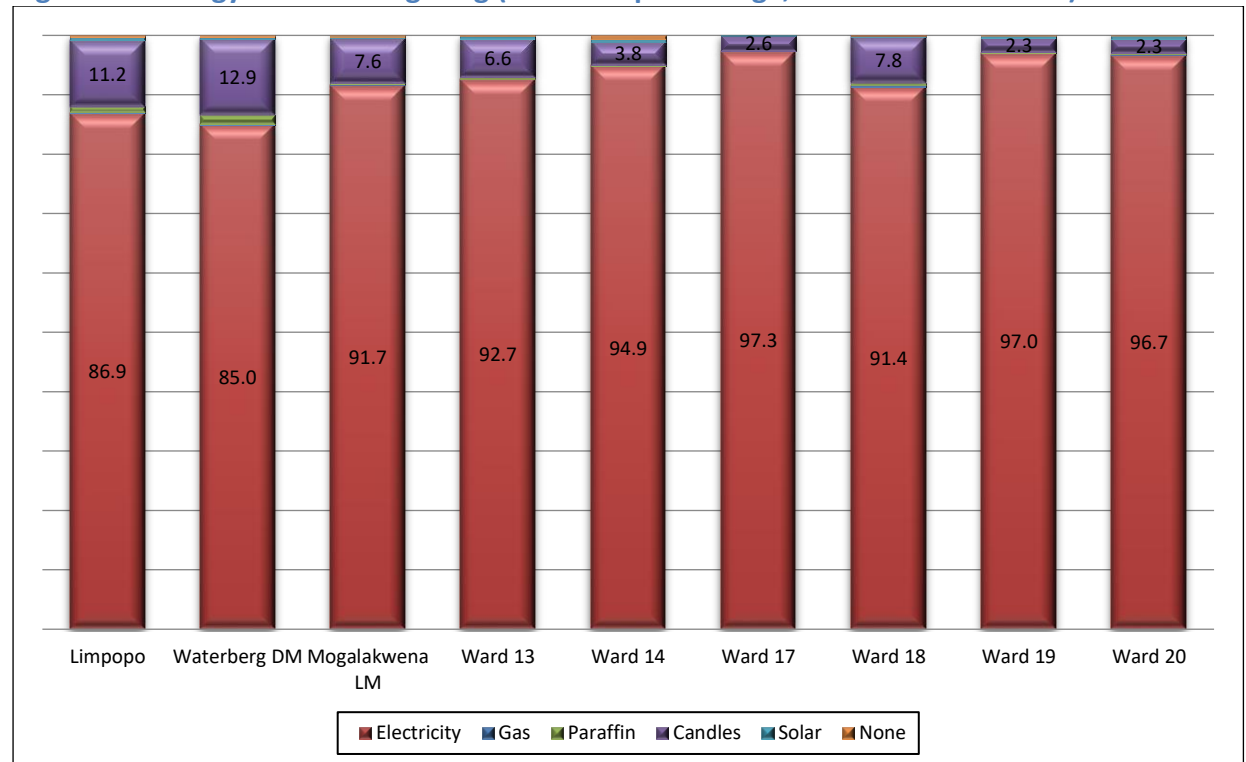
Figure 16: Piped water (shown in percentage, source: Census 2011)



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. The incidence of households with access to electricity on ward level is slightly higher than on local level (Figure 17), except in Ward 18. Wards 13 and 18 has the greatest proportion of households that use candles as energy source for lighting,



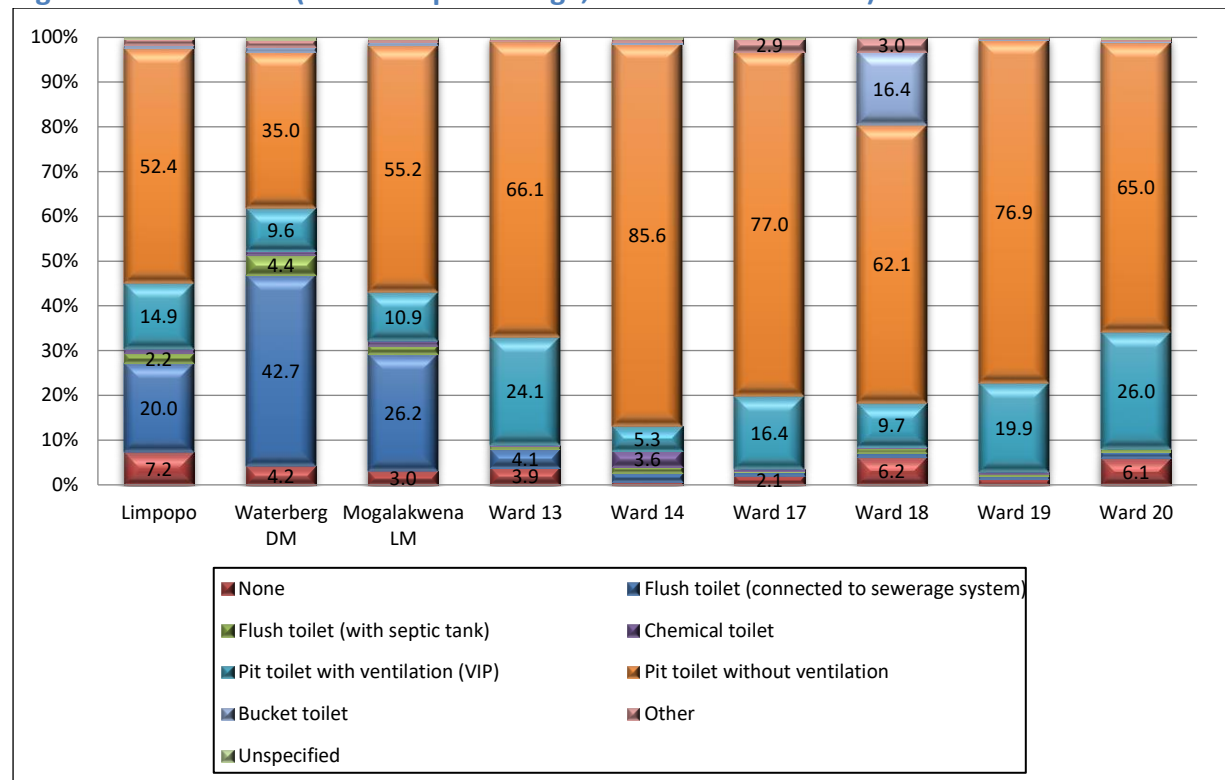
Figure 17: Energy source for lighting (shown in percentage, source: Census 2011)



On a ward level the majority of households have access to a pit toilet with or without ventilation ([Figure 18](#)). Ward 18 has the greatest proportion of households using a bucket toilet.



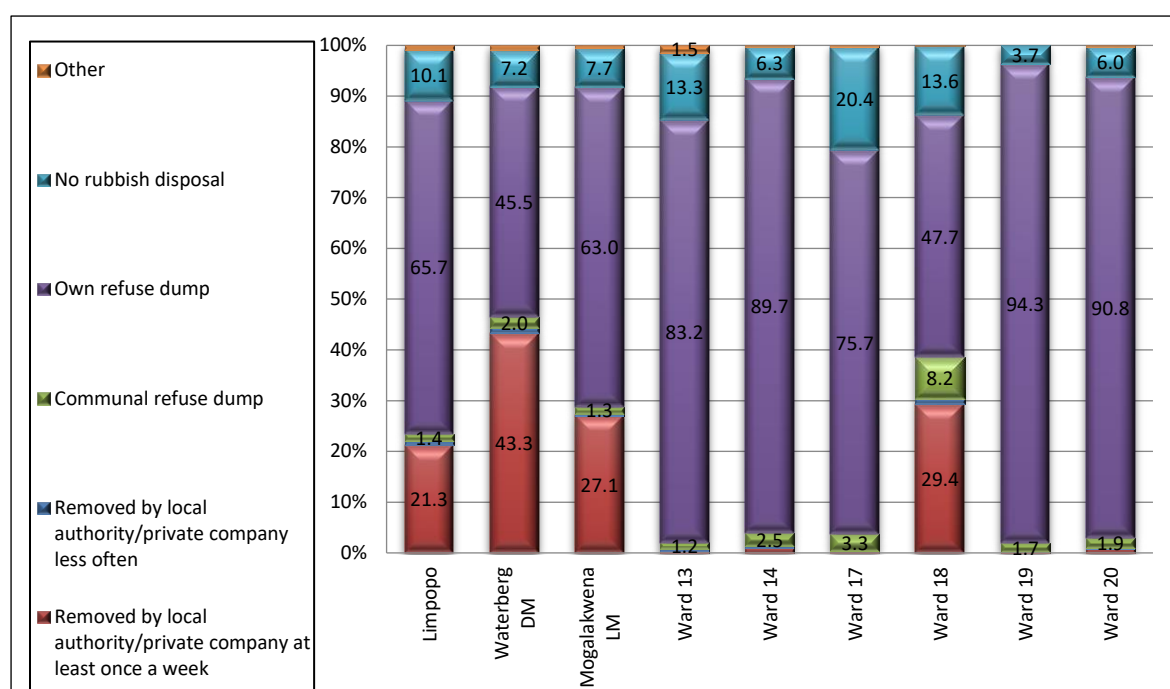
Figure 18: Sanitation (shown in percentage, source: Census 2011)



The majority of households on a ward level have their own refuse dumps (Figure 19). Ward 18 has the highest proportion of households that have their refuse removed by a local authority or private company (such as the mine), while Ward 20 has the highest incidence of households that have no refuse dump.



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



6.3 Community relations

This section is a brief summary of the discussion in Zutari's Social Baseline Report (2020) for the project, and supplemented by field notes taken during the consultation process:

There are 178 rural settlements (villages) spread across the Mogalakwena LM (Zutari, 2020). There are three semi-urban settlements, Ga-Pila – Sterkwater, Ga-Puka – Rooibokfontein, and Ga-Sekhoalelo – Armoede, which were all proclaimed as a result of relocation due to mining expansion in the Mapela (Bakenberg) Traditional Authority (TA) area. There are four TA areas in the municipality and the Mogalakwena mine is mainly located on land owned by the Mapela (Bakenberg) TA and the Mokopane TA, situated immediately adjacent to the operation. Both these traditional authorities enjoy legal recognition. Traditional authorities play an important role in provincial politics.

There are 42 villages within a radius of about 50 km around the project area, of which six are under the authority of the Mokopane TA and the remainder under the authority of the Mapela TA. When the Mogalakwena mine became operational in 1993, a number of communities were relocated to make way for mining activities.



These communities are Motlhotlo (Ga Sekhaolelo), relocated to the farm Armoede (where the proposed project's preferred site alternative lies), Ga-Pila Village, which was relocated to Sterkwater Farm, and Motlhotlo (Ga-Puka) under the Mapela TA, relocated to Rooibokfontein Farm. Some economic displacement took place in Sekuruwe, Ga Molekane and Ga Chaba.

For the purposes of potential mining expansion, some exploration drilling is underway on three farms, namely Tweefontein 238 KR (Portion 1), Knapdaar 234 KR, and Rietfontein 240 KR. Six villages from Mokopane and two villages from Mapela are affected.

Although traditional leadership and structures are still influential at community level, their presence and role are not accepted by all community members, and division within these structures are evident (Zutari, 2020). Conflict about leadership is a historical issue and remains a challenge to the management of community relations. These historical issues affect community engagement processes in the study area. The fact that the EIA process focus on a site-specific development within a complex social environment means that a number of issues irrelevant to the EIA process continue to appear in the community engagement process. The Mogalakwena Reset project, a much bigger and community wide project are taking place in parallel with the EIA process for the Solar PV plant, and there has been some confusion of issues. The community's expectations about involvement in and benefits from the proposed Solar PV plant are significant, and not always realistic. Tribal authorities officially recognised by the Dept. of Co-operative Governance and Traditional Affairs (COGTA) have been consulted for the project, but there are some leadership disputes in the communities. No party has been exempted from the consultation process, but some community members and leadership groups did not agree with the inclusive process followed by Zutari.

The local villages of Motlhotlo Ga Puka and Motlhotlo Ga-Sekhaolelo are located on the farm Armoede, adjacent to where the land parcels earmarked for the proposed project are located, to the east. The village of Ga Molekana is located adjacent to the site on the southwestern side. There are some underlying issues that have affected



the villages after being relocated (Zutari, 2020). These issues included the lease agreement in respect of the farm Overseysel; the Broad-Based Black Economic Empowerment (B-BBEE) shareholding of the community in the lease agreement; the service level agreement between the Mine and the MLM; and structural defects in some houses. Not all the villagers relocated from their ancestral homes. Some community members have issues with the Mogalakwena mine in terms of cultural heritage concerns.

6.4 Ecosystem services

This section is a summary of the Mogalakwena Reset Social Survey findings pertaining to ecosystem services in the directly affected communities. Reliance on natural resources is generally low among surveyed households. Only 484 respondents (17%) indicated that they collect firewood on a regular basis. The proposed site is located adjacent to the villages of Motlhotlo Ga Puka, Mothlotlo Ga-Sekhaolelo and Ga Molekana. In Motlhotlo Ga Puka 16% of households collect firewood. In Mothlotlo Ga-Sekhaolelo 15% of households collect firewood and in Ga Molekana only 12% of households collect firewood. Of the respondents who indicated that they regularly collect firewood, about one-fifth felt that the resource was abundant and easy to find. For the remainder, the most common challenges in accessing the resource were that they were difficult to find. About one-third of respondents stated that the availability of the resource has diminished over the last ten years; the remainder stated that it has remained the same (DigbyWells, 2022).

Respondents were asked what alternative resources they would use for the same purpose, should the resource no longer be available. In connection with firewood (the only natural resource for which regular harvesting was reported by significant numbers of respondents), one-third stated that no alternative was available; another third that they did not know; and the remainder mostly identified electricity as an alternative. A small number of respondents also identified animal dung as an alternative fuel. Almost all respondents indicated that they collect firewood for their own use rather than to sell. Discussions by female focus group respondents on natural resources focused mostly on firewood. It was noted that, while some women collect



their own firewood, many buy from vendors. A donkey cart-load of firewood costs between R300 and R800, depending on the size of the cart. The main motivation for using firewood is the cost of alternatives such as electricity and paraffin. Women noted that they have to walk great distances to get their own firewood, and the routes they travel are often unsafe. All respondents agree that the availability and accessibility of natural resources has decreased in recent years. Residents from Ga Molekana claimed that the demand for firewood is still very high.

No one in the three adjacent villages indicated that they collected medicinal plants, and only a few households indicated that they regularly hunt or snare animals for bushmeat. The harvesting of clay was mentioned by respondents from Ga-Sekhaolelo. It was reported that, according to local cultural norms, the use of clay for medicinal purposes is strictly confined to women who are in menopause (DigbyWells, 2022). The impact on the use of ecosystem services in the villages adjacent to the project area will be limited and only affect a small number of residents, if any.

6.5 Discussion of receiving environment

The receiving environment is located in the Mogalakwena Local Municipality, which is located in the Waterberg District Municipality in the Limpopo Province. The proposed site is located adjacent to the villages of Motlhotlo Ga Puka, Mothlotlo Ga-Sekhaolelo and Ga Molekana. Platinum mining is considered key to the economic development in the area, and for the communities surrounding the mine, it is one of the few economic opportunities available, and as a result there is a significant expectation in terms of employment and procurement opportunities at the mine.

The population in the municipality showed an increase of about 6.9% between 2011 and 2016, while the number of households have increased with just over 5.3%. The area has high dependency ratios, which suggests a lack of employment opportunities in the area and high levels of poverty. A greater proportion of households are living in poverty in 2016 compared to 2011. It is anticipated that poverty levels in the area have increased even further as a result of the COVID-19 pandemic.



The majority of the population in the area belong to the Black population group, with Sepedi the home language of more than 70% of the population in the municipality. Other home languages that are frequently spoken are Xitsonga and IsiNdebele, suggesting cultural diversity in some areas. There is a bias toward females in the area, which is characteristic of rural areas as many males migrate to urban areas in search of employment. In mining areas there is usually a bias toward males, but it is not the case in this area.

Education levels are relatively low and vary on ward level, suggesting that it might be easier to find people with the required skills in some areas than in other areas. Employment levels are low and vary across wards, suggesting that expectations regarding employment or benefits are likely to be higher in some areas than others. A large proportion of households live below the poverty line.

Relationships between communities and the mine, as well as between some community groups are strained, and this represent a business risk to the mine and associated projects.

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

- Documentation used for communicating about the project should be available in English and Sepedi;
- Mining skills in the community are limited and implementing a skills development plan will enhance the pool of potential employees in the community.
- Given the levels of poverty in the area, and limited employment opportunities, fierce competition for resources can be expected.



7 Social Impact Assessment

The following section of the report focuses on the identification and analysis of social impacts. Mitigation and management measures will also be discussed. It must be considered that most social impacts are of a cumulative nature, as many existing social challenges are present in the affected community. It is not anticipated that any of the identified impacts will change due to the change in footprint.

7.1 Impact Assessment Criteria

The impact tables and ratings were adapted from the environmental sciences, and 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.

The assessment of the significance of impacts for a proposed development is by its nature, a matter of judgement. Zutari uses the following methodology to assess potential impacts on the proposed project:

For each predicted impact, criteria are applied to establish the **significance** of the impact based on likelihood and consequence, both without mitigation being applied and with the most effective mitigation measure(s) in place. The criteria that contribute to the **consequence** of the impact are **intensity** (the degree to which pre-development conditions are changed), which also includes the **type** of impact (being either a positive or negative impact); the **duration** (length of time that the impact will continue); and the **extent** (spatial scale) of the impact. The sensitivity of the receiving environment and/or sensitive receptors is incorporated into the consideration of consequence by appropriately adjusting the thresholds or scales of the intensity, duration and extent criteria, based on expert knowledge. For each impact, the specialist applies professional judgement to ascribe a numerical rating for each criterion

The consequence is then established using the formula:



$$\text{Consequence} = \text{type} \times (\text{intensity} + \text{duration} + \text{extent})$$

Depending on the numerical result, the impact's consequence would be defined as either extremely, highly, moderately or slightly detrimental; or neutral; or slightly, moderately, highly or extremely beneficial.

To determine the significance of an impact, the **probability** (or likelihood) of that impact occurring is also taken into account and applied with the consequence according to the following equation:

$$\text{Significance} = \text{consequence} \times \text{probability}$$

Once the significance of an impact occurring without mitigation has been established, the specialist must apply his/her professional judgement to assign ratings for the same impact after the proposed mitigation has been implemented.

The impact assessment criteria is summarised in [Table 7](#) below.

Table 7: Summary of impact assessment criteria

CRITERIA	CATEGORY	DESCRIPTION	VALUE
Project phase	Construction		
	Operation		
	Decommissioning		
Mitigatability	Low	Mitigation does not exist; or mitigation will slightly reduce the significance of impacts	
	Medium	Mitigation exists and will notably reduce significance of impacts	
	High	Mitigation exists and will considerably reduce the significance of impacts	
Nature	Positive		1
	Negative		-1
Duration	Immediate	Impact will self-remedy immediately	1
	Brief	Impact will not last longer than 1 year	2
	Short term	Impact will last between 1 and 5 years	3
	Medium term	Impact will last between 5 and 10 years	4
	Long term	Impact will last between 10 and 15 years	5
	On-going	Impact will last between 15 and 20 years	6
	Permanent	Impact may be permanent, or in excess of 20 years	7
Extent	Very limited	Limited to specific isolated parts of the site	1
	Limited	Limited to the site and its immediate surroundings	2
	Local	Extending across the site and to nearby settlements	3
	Municipal area	Impacts felt at a municipal level	4
	Regional	Impacts felt at a regional / provincial level	5
	National	Impacts felt at a national level	6
	International	Impacts felt at an international level	7



Intensity	Negligible	Natural and/ or social functions and/ or processes are negligibly altered	1
	Very low	Natural and/ or social functions and/ or processes are slightly altered	2
	Low	Natural and/ or social functions and/ or processes are somewhat altered	3
	Moderate	Natural and/ or social functions and/ or processes are moderately altered	4
	High	Natural and/ or social functions and/ or processes are notably altered	5
	Very high	Natural and/ or social functions and/ or processes are majorly altered	6
	Extremely high	Natural and/ or social functions and/ or processes are severely altered	7
Probability	Highly unlikely / none	Expected never to happen	1
	Rare / improbable	Conceivable, but only in extreme circumstances, and/or might occur for this project although this has rarely been known to result elsewhere	2
	Unlikely	Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur	3
	Probable	The impact has occurred here or elsewhere and could therefore occur	4
	Likely	The impact may occur	5
	Almost certain / Highly probable	It is most likely that the impact will occur	6
	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	7
Confidence	Low	Judgement is based on intuition	
	Medium	Determination is based on common sense and general knowledge	
	High	Substantive supportive data exists to verify the assessment	
Reversibility	Low	The affected environment will not be able to recover from the impact - permanently modified	
	Medium	The affected environment will only recover from the impact with significant intervention	
	High	The affected environmental will be able to recover from the impact	
Resource irreplaceability	Low	The resource is not damaged irreparably or is not scarce	
	Medium	The resource is damaged irreparably but is represented elsewhere	
	High	The resource is irreparably damaged and is not represented elsewhere	
Significance	Negligible		
	Minor		
	Moderate		
	Major		



7.2 Description of potential impacts

“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

Social impacts are complex in nature and can start as soon as there are rumours about the project, or the project enters the public domain. Some social impacts can result in further social impacts. **Relations** between some of the communities in the area around the mine is **strained**, and the mine has very little **social license to operate**. This may be carried over to the IPP. Social license to operate implies that the acceptance of the community is also necessary for a project to be successful (Vanclay et al., 2015). It cannot be obtained by going to a government ministry and making an application or simply paying a fee. It requires far more than money to truly become part of the communities in which a company operates (Lassonde 2003). A primary objective of gaining a social license is to minimize project risk. *“Successful operations require the support of the communities in which they operate now, and in the future, to ensure continued access to land and resources”* (Render 2005). The social license to operate can be further described as the degree of match between stakeholders’ individual expectations of corporate behaviour and companies’ actual behaviour.

Earning social licence to operate starts in the planning phase of any given project. First impressions are long lasting, and the company must recognize that community opinion is conditioned by previous experience, knowledge gained from elsewhere and the approach taken by the company. Conflict can arise very quickly if there is a failure to respect local customs, give notice of actions, address community concerns and so on. Knowledge of the community and on-going communications are prerequisites for good relations. Historical issues between the mine and the community makes improving relationships very challenging. Partnered with the community’s expectations about the value that the mine should add to their community, some of which are unrealistically high, it is unlikely that it will be an easy task to win the trust of the community and earn a social licence to operate in the near future. Anglo has initiated a programme to reset the relationship with



communities aimed at addressing some legacy issues. The Solar PV facility will be operated by an IPP, but from a community perspective it will still be viewed as part of the mine. Although the IPP technically does not need the permission or approval of the community to continue with the facility, there is significant risks associated with continuing construction without a social licence to operate. It will not be easy to change this, and any positive improvement will take time, patience, and action. The IPP would need to work hard to win the trust of the community. There are no quick fixes in for the current state of affairs, and the social area of influence where the facility will be built are subjected to complex historical social issues which continues to influence community relations. It is therefore in the interest of the IPP, the mine and the community to improve and invest in relationships between the parties, as this is the first step forward.

The following impacts can be expected due to the project.

7.2.1 Community-based impacts

Relationships between some of the communities around the mine is strained, and in the past, there has been incidents of violence and volatility. There are also leadership battles within the communities, some of which are dating back to the previous century. Some of the leadership battles have caused significant divisions within the communities in the area of influence.

- **Community expectations** – the communities expect that they should benefit from the IPP. They feel that not only those closest to the proposed project should benefit, but rather the wider community. To date the perception of the communities is that the mine did not deliver on promises made in the past, and this make them doubtful about potential benefits to the communities resulting from any projects initiated by the mine, even if another party implement the project. There is an expectation that the communities will receive electricity from the project, but due to legalities surrounding power supply, this would not be feasible for the proponent. Some groups within the surrounding communities are expecting to partner with the mine on the power purchase agreement and feel strongly that these should not be awarded to



companies or politically connected people from outside the area. This may pose a challenge to the social license of the IPP.

Proposed mitigation:

There are existing communication structures in place in the project affected communities. The Mogalakwena Resetting Relationships project is currently implemented in the area. The IPP must give inputs in the communication strategy of the mine and align their own strategy accordingly. The IPP must ensure that specific communication about the Solar PV plant is included in the mine's current communication strategy to avoid stakeholder fatigue and confusion. Communication with the communities must be streamlined between the mine and the IPP to ensure that all parties give a consistent message. The communication strategy must communicate in an open and honest way what benefits the community can expect, who will qualify and how benefits will be distributed. The possibility of potential benefits realising must be made explicit, and the community must be informed in no uncertain terms what would be possible and what not. The strategy must actively manage expectations. The communication strategy must be used for the life of the project. The IPP must adapt the existing communication strategy to their need but take the historical processes in consideration. To reach a wide audience, it is recommended that different media must be used, including social media, printed media, and meetings. The IPP must appoint a stakeholder liaison person to build relationships with the community and win their trust. The IPP needs to ensure that it is able to deliver on its commitments. The IPP must consult with the communities to determine the scope of the benefits, who should benefit, and how the benefits are distributed. There are a number of existing working group / committees with representatives from the various communities or interest groups that can be utilised to assist with this.

- **Community resistance to the proposed project** – at the moment there are groups that are strongly opposed to the project, mainly due to the poor social license to operate from the mine, and conflict within the communities. Some



of the groups are of the opinion that the mine did not follow the correct social protocols to introduce the project to the communities, by announcing the project instead of consulting with community leaders on the project first. The community politics also influence the perspectives of the communities about who need to be consulted and in what manner. The complexity of the social environment makes it very difficult to get all parties to agree. Irrespective of the fact that the project will be constructed and managed by an IPP, the communities still view it as a mining project. The mine must introduce the IPP to the communities and ensure that the IPP starts its relationship with the mine in the right manner.

Proposed mitigation:

It is not easy to recover social licence to operate once it has been lost. Even though the facility will be built and run by an IPP, the IPP will start with a disadvantage due to its associations with the mine. Anything the mine or the IPP does will have an impact on one another's social licence, as they are likely to be viewed as one entity by the communities, and poor social license of one party can create business risks for the other party. It will be beneficial for all relationships if the mine can engage in a strategy to regain its social licence to operate in the community. This is underway through the Mogalakwena Reset project. It is important to include all current and future developments in this strategy. Reclaiming social licence to operate is not an easy process and will take time as the community will not trust their efforts and the mine will have to prove their commitment to good relationships and delivering on promises over time. The mine needs to engage with the community regarding benefits that the community expected in the past but did not receive – whether real or perceived. The community will expect an apology from the mine, and that the mine will make good on their past promises. The IPP must determine what the appropriate social protocols are to continue engaging with the community.

The IPP needs to include planning and budgeting for conflict situations in their emergency response procedure. There must be a policy on dealing with



community conflict, and it must be shared with the community. The IPP should conduct a root cause analysis or use other appropriate systems to identify potential sources and impact of conflict.

- **Community relations** – the relationship between the mine and some of the community is tense, and this can be attributed to mistrust from the community and the perception that the mine is not delivering on the benefits that they have committed to in the past, and internal conflict within the communities. The community also do not feel respected by the mine as a result of the way the mine is embarking on the project. This perception may be fuelled by community politics and often boils down to the benefits that the communities expect from the project and who the recipients of the benefits would be. This may have a negative impact on the way in which the community perceive the IPP that would be implementing the project. Although the mine does not have a legal obligation to consult with the community before announcing the project, the community feels that they are just being informed, instead of being consulted with, which goes against the collaborative approach the community is expecting. The strained community relations may be transferred to the IPP if appropriate action is not taken.

Proposed mitigation:

The IPP must develop a community relations strategy. The strategy must be revised constantly to ensure that it follows a consultative approach, rather than an informative approach. The IPP needs to determine how it can form a collaborative relationship with the surrounding communities. This in itself may be challenging, given the existence of conflict between some community groups. It is important to include the appropriate social protocols as expected by the communities in the strategy.

The IPP must establish a existing grievance mechanism that addresses and keep record of community grievances. The grievance mechanism must be revised from time to time to ensure that it is still relevant and easily accessible



to community members. The community must assist with updating the grievance mechanism. Given the nature of the relationship it is important to have documented evidence of community/IPP interactions. This will assist the IPP to track the issues, and the community to see what actions the proponent has taken. The trust issues between the mine and the community means that the IPP will need to work hard at building the relationship.

- **Uncertainty** – some community members expressed uncertainty about how the project will affect their lives. If this is not addressed, it could result in unrest in the community when people start to make their own assumptions regarding the potential impacts.

Proposed mitigation:

The IPP needs to implement a communications strategy about this project specifically that share information and facts with community members that will address their information needs. This must be ongoing throughout the life of the project, but with an emphasis on the planning and construction phases of the project.

- **Relocation** – depending on the layout of the PV facility, it may be necessary to relocate a few households. The need for relocation can only be determined once the actual layout of the site is available. A Land Use and Impact Assessment is currently in process, and during this assessment it will be determined whether relocation would be required. This process falls outside the scope of the SIA but needs to be done with care to avoid it causing further community impacts.

Proposed mitigation:

It is acknowledged that some of these structures may be illegal, and the IPP needs to weigh up the cost of relocation these households versus the cost of potential community conflict. If relocation is required, it needs to be done



according to international best practice. A relocation action plan and livelihood restoration plan must be compiled to inform any potential relocation.

- **Loss of livelihoods** – some community members are concerned that the project will lead to a loss in livelihoods, as they use the land where the site is proposed for grazing of cattle and agricultural activities. In the past, mining activities and relocation of people have resulted in the loss of agricultural land and grazing areas, which impacted on the livelihoods of people. Some people are concerned that the project will contribute to this. It must be noted though that the land currently belongs to the mine and not to the community, but that there are cattle grazing on the property and some parts of it may be used for cultivation. Relocation of indigenous plants and access of the community to these plants form part of this impact. The ecosystem services report that the directly affected communities mostly use the area for collecting fire wood.

Proposed mitigation:

This impact will only affect selected individuals. The IPP needs to interact with the relevant community groups to determine how the affected individuals can be compensated for the loss of their livelihoods, either financially or in kind by providing a suitable alternative site for these activities. In kind compensation would be the preferred option. Alternative grazing sites must be accessible to community members, and they should not incur additional costs due to the new location. If there are crops growing on the fields at the time when the site development will start, the owners must be compensated for their crops. They must also be assisted with finding alternative sites to grow their crops, and to prepare the new land for cultivation. International best practice principles for economic displacement must be followed in such instances.

The indigenous plants should be removed from the site prior to the start of construction. The IPP should involve community members in this process – to assist with the relocation of the plants, find a suitable site to relocate these



plants to, and other relevant decisions. The site should be accessible to community members and the IPP can consider an indigenous plant nursery.

It must be acknowledged that the EIA process is not a democratic process, and that the project will likely be approved despite some community objections. The expectations of the community need to be managed carefully though, as this impact can pose significant risk to the IPP and the mine on different levels. Potential types of costs of conflict between mines and communities are explained in the table below:

Table 8: Types of cost to company as a result of community conflict.

Types of cost to company	
Security	<ul style="list-style-type: none"> • Payments to state forces or company security contractors. • Increased operational cost of security: fences, patrols, escorts, transport, alarm systems, reduced mobility. • Increased security training and management: staff time, lost production, costs of programs.
Project modification	<ul style="list-style-type: none"> • Design modification costs: application, redesign, legal. • Additional works.
Risk management	<ul style="list-style-type: none"> • Insurance: higher premiums and coverage, risk rating, withdrawal of coverage. • Legal and conflict expertise: specialist training for staff, additional staff.
Material damage	<ul style="list-style-type: none"> • Damage or destruction of private property or infrastructure. • Damage or destruction to public property or infrastructure.
Lost productivity	<ul style="list-style-type: none"> • Operations discontinued: voluntary closure or enforced through injunction. • Temporary shutdown of operations. • Lost opportunity for future expansion and/or for new projects. • Disruption to production: temporary or indefinite delays, absenteeism. • Delays in deliveries/supplies. • Greater regulatory burden/scrutiny.
Capital	<ul style="list-style-type: none"> • Loss of value of property: full write-off, other depreciation, sale at a loss, theft. • Inability to repay debt or default on debt. • Difficulty raising new capital. • Share price instability/loss in value (within relevant time period).
Personnel	<ul style="list-style-type: none"> • Staff time spent on risk and conflict management. • Costs of remediation: meetings, negotiations, mediators. • Hostage-taking: ransom payments, rescue operations, compensation. • Arrests of staff. • Injuries to staff and fatalities. • Low morale and stress-related effects. • Retention: higher salaries, compensation packages, bonuses. • Recruitment: advertising positions, screening, interviewing, induction training.



Reputation	<ul style="list-style-type: none"> • Higher expenditure on public relations: consultants, dissemination of information. • Competitive loss/disadvantage: impact on brand, investor confidence.
Redress	<ul style="list-style-type: none"> • Compensation (out of court payments). • Fines. • Increased social and environmental obligations: health care, education and training, provision of other services, clean-up and remediation costs. • Costs of administrative proceedings or litigation: costs of proceedings themselves, judgment/settlement costs.

Adapted from Davis & Franks, 2014

It is clear that community-company conflict can potentially cost the mine and the IPP a lot of money, time, and effort. Addressing this impact will not be an easy or quick process, and it is imperative that the process should start as soon as possible.

7.2.2 Economic impacts

The communities have great expectations in terms of the socio-economic benefits that the project will have for them. If managed properly, the impacts can be very positive, but if the proponent does not keep to its commitments, the lack of benefits, whether perceived or real, will result in negative impacts.

- **Job creation** – It is expected that approximately 397 people will be employed during construction phase and approximately 21 permanent jobs would be created during the operational phase. In these employment opportunities, it is expected that approximately 48% would be male, 51.30% would be female and 29.30% would be youth employees. These numbers are different from those provided in the EIA report due to the progress in the design of the facility. Although most of the jobs will be temporary in the nature, it will provide the opportunity for developing new skills, gaining experience and a temporary livelihood. The communities expect that most of these people will be sourced from the community and that the mine will invest in developing the necessary skills in the community to enable the community to qualify for a larger proportion of the available positions. This is a challenging position for the mine as the facility will be developed by an IPP, and it must be considered that the community is likely to view the IPP as part of, or a representative of the mine. It can also put strain on the relationship between the IPP and mine.

*Proposed mitigation:*

Local labour must be used as far as possible for the project. This will minimise the potential negative social impacts on the communities and optimise the positive impacts. The IPP needs to liaise with the Local Economic Development section of the Mogalakwena LM, local leaders and NGO's regarding their recruitment policy to ensure it is in line with the local practices and tap into existing knowledge. The recruitment policy must set reasonable targets for the employment of local people and women. The IPP and stakeholders should identify these targets before recruitment commences. The definition of 'local' must be clarified with the affected stakeholders. The IPP must provide the local municipality and local leadership structures with a list of skills required before the construction period commences, and they must distribute this list to all stakeholders to allow them to prepare for opportunities. All labour opportunities must be accessed through a labour desk in a location that is accessible for the communities, no recruitment must be allowed on site.

The IPP should consider implementing a skills development plan that focus on the skills that will be needed, in order to increase the availability of required skills in the local community.

- **Economic opportunities** – the construction and operation of the facility will result in economic opportunities for entrepreneurs. The communities are concerned that most of these opportunities will go to entrepreneurs and businesses from outside the community. Examples of potential opportunities are the provision of building sand, catering services, transport, accommodation, etc. Another concern is that women will be marginalised and will not benefit from the proposed project.

Proposed mitigation:

The specialised equipment needed for the project will not be available locally, but as far as possible everything else must be procured locally. The IPP must develop a policy about local procurement. Workers from outside the area must



be provided with a list of local service providers for their accommodation and other social needs. People that could provide services should be offered an opportunity to put their names on a list at the municipality or community structures to ensure that the proponent is aware of the available resources. The IPP should engage with local entrepreneurs through the local business association and provide them with relevant economic opportunities. If there is no local business association, the IPP can facilitate the establishment of such an association.

- **Community shareholding** – the land where the facility will be developed currently belongs to the mine but will be transferred to the community and then leased back to the mine. There is not yet a formal agreement in place, but it has been agreed in principle. The exact recipients of the benefits that will accrue from this project has not been determined and can become a source of social conflict if not managed well. It is further planned that the community will hold shares in the project, which will generate an income for the communities and contribute to the socio-economic upliftment of the area. There are concerns from community members that only certain communities in the area will benefit, and the feeling is that the communities in the wider area should also benefit from the shareholding. Another concern raised by the communities were that they were not consulted regarding the potential shareholding, which raises the perception that shareholding is done to them, rather than with them. Although shareholding holds benefit to the community, the way that it is done, and the process is being managed, will to a great extent determine the success of the initiative.

Proposed mitigation:

Benefits to the local communities must be real and tangible. The shareholding benefits and structure should be finalised with the input of the community in order to be successful. The IPP should consider establishing a community trust that is administered by a board that consist of a range of representatives, including representatives from the local communities. Representatives from



the local communities should also include people that are not part of the traditional leadership structures as well as representatives from groups that are often marginalised, such as women, youth, and the elderly. The structure and operational objectives of the trust should be determined at the time of establishment. It is envisaged that the development objectives/ projects identified and supported by the trust will be identified in collaboration with the local municipality, community representatives and NPOs in the area. Projects should align with key needs that were identified in the area.

7.2.3 Impacts on infrastructure

Impacts on infrastructure are most likely to take place during the construction phase of the project.

- **Traffic impacts** - the N11 that will separate the mine from the PV facility is a busy road that connects the site to a wider regional road network. It is also part of a major public transport corridor in Mogalakwena that consists mostly of minibus taxis. According to residents there are many accidents on the road. During the construction phase there will be an increase in construction vehicles on the road. Although a traffic impact assessment is being conducted for the project, from a social perspective the concern is regarding community safety given the anticipated increase in traffic.

Proposed mitigation:

The IPP, together with the mine must develop a Traffic Management Plan to address the flow of traffic and road safety. Aspects such as speeding, driving while tired, transport of passengers, driving on un-tarred roads and general road safety must be included in the plan and in the induction of workers.

- **Physical infrastructure** – an increase in workers in the area will put pressure on physical infrastructure such as housing and access to basic services such as water and electricity. The extent of the pressure will be determined by the proportion of contractors that will come from outside the area. It is not known



where contractors will be housed, or whether there will be a construction camp.

Proposed mitigation:

The IPP must plan where the contractors will be housed in advance. Although independent contractors will be used for construction purposes, it should not be left up to them to find accommodation for their workers. If local skills can be used, it should be given preference. The IPP needs to coordinate with the local municipality and local community structures to ensure that the available infrastructure can cope with the demand. If a construction camp is established, it must be done according to IFC guidelines for Workers' Accommodation. The location of the construction camp must be agreed on with surrounding neighbours.

7.2.4 Environmental impacts with social dimensions

Although environmental impacts such as dust, noise, light and visual are addressed in other specialist reports, these impacts have a social dimension and can impact on the quality of life and sense of place of affected community members, even if the impact is within its legal parameters.

Proposed mitigation:

In general, the mitigation measures suggested in the other relevant specialist studies should be adhered to. The relevant specialist studies will provide scientific mitigation measures for the aspects relevant to their studies. will provide scientific mitigation measures for the aspects relevant to their studies. Noisy activities should be limited at night, and from a social perspective the criteria would be that the activities should not bother community members who reside in close proximity to the facility. It is important that mitigation and monitoring measures must be communicated to the affected parties through existing forums. These forums can also act as a platform to discuss environmental issues. Using the forums effectively can be an important aspect assisting the IPP with obtaining a social licence to operate. The public perception



Equispectives

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would be negative or positive depending on the successful implementation of the rehabilitation after construction.



7.2.5 Impact Ratings

The tables below give the impact ratings and a summary of the impacts.

Ref: 1				
Project phase	Construction			
Impact	Community expectations			
Description of impact	Communities expect that they should benefit from the mine and its associated project			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Communication strategy, open and honest communication, establish working group with representatives from various communities or interest groups			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years
Extent	Municipal area	Impacts felt at a municipal level	Municipal area	Impacts felt at a municipal level
Intensity	Very high	Natural and/ or social functions and/ or processes are majorly altered	High	Natural and/ or social functions and/ or processes are notably altered
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Likely	The impact may occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Low	The resource is not damaged irreparably or is not scarce	Medium	The resource is damaged irreparably but is represented elsewhere
Significance	Major - negative		Moderate - positive	
Comment on significance	This will only be changed in a positive impact with significant input from the proponent, otherwise the mitigation may produce less of a positive impact.			
Cumulative impacts	The communities already have significant expectations of the mine, and any perceived improvements will add to the expectations that the communities have.			



Ref:		2		
Project phase	Construction			
Impact	Community resistance to proposed project			
Description of impact	Some groups are strongly opposed to project, mainly due to poor social license to operate from mine			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Engage with communities, determine social protocols, strategy for regaining social license to operate, policy on dealing with community conflict			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	Short term	impact will last between 1 and 5 years	Short term	impact will last between 1 and 5 years
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
Intensity	High	Natural and/ or social functions and/ or processes are notably altered	Low	Natural and/ or social functions and/ or processes are somewhat altered
Probability	Almost certain / Highly probable	It is most likely that the impact will occur	Likely	The impact may occur
Confidence	Medium	Determination is based on common sense and general knowledge	Medium	Determination is based on common sense and general knowledge
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Medium	The resource is damaged irreparably but is represented elsewhere	Medium	The resource is damaged irreparably but is represented elsewhere
Significance	Minor - negative		Minor - positive	
Comment on significance	The significance of the unmitigated impact is much greater than minor			
Cumulative impacts	The mine has been struggling with obtaining a social license to operate, and any project associated with the mine will therefore be subjected to mistrust from some of the affected communities.			



Ref:	3			
Project phase	Construction			
Impact	Community relations			
Description of impact	The relationship between the mine and the community is tense due to mistrust and perception that mine is not delivering on benefits committed to in the past			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Community relations strategy, grievance mechanism			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years
Extent	Municipal area	Impacts felt at a municipal level	Municipal area	Impacts felt at a municipal level
Intensity	Very high	Natural and/ or social functions and/ or processes are majorly altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Almost certain / Highly probable	It is most likely that the impact will occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Medium	The resource is damaged irreparably but is represented elsewhere	Medium	The resource is damaged irreparably but is represented elsewhere
Significance	Major - negative		Moderate - positive	
Comment on significance	It will take significant input from the mine to mitigate this impact.			
Cumulative impacts	Due to historic mistrust any new development is viewed with some skepticism from a community perspective			



Ref:	4			
Project phase	Construction			
Impact	Uncertainty			
Description of impact	Some community members are uncertain about how project will affect their lives			
Mitigatability	High	Mitigation exists and will considerably reduce the significance of impacts		
Potential mitigation	Communication strategy			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	Short term	impact will last between 1 and 5 years	Short term	impact will last between 1 and 5 years
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
Intensity	Moderate	Natural and/ or social functions and/ or processes are moderately altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
Probability	Almost certain / Highly probable	It is most likely that the impact will occur	Almost certain / Highly probable	It is most likely that the impact will occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact
Resource irreplaceability	Low	The resource is not damaged irreparably or is not scarce	Low	The resource is not damaged irreparably or is not scarce
Significance	Minor - negative		Minor - positive	
Comment on significance	It will take significant input from the mine to implement the mitigation measures successfully			
Cumulative impacts	Due to trust issues in the past community members are reluctant to believe that the mine has their best interest at heart			



Ref:	5			
Project phase	Construction			
Impact	Relocation			
Description of impact	Some households may need to be relocated			
Mitigatability	High	Mitigation exists and will considerably reduce the significance of impacts		
Potential mitigation	Relocation action plan, livelihood restoration plan			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Negative	
Duration	Permanent	Impact may be permanent, or in excess of 20 years	Permanent	Impact may be permanent, or in excess of 20 years
Extent	Limited	Limited to the site and its immediate surroundings	Limited	Limited to the site and its immediate surroundings
Intensity	Very high	Natural and/ or social functions and/ or processes are majorly altered	High	Natural and/ or social functions and/ or processes are notably altered
Probability	Almost certain / Highly probable	It is most likely that the impact will occur	Likely	The impact may occur
Confidence	Medium	Determination is based on common sense and general knowledge	Medium	Determination is based on common sense and general knowledge
Reversibility	Low	The affected environment will not be able to recover from the impact - permanently modified	Low	The affected environment will not be able to recover from the impact - permanently modified
Resource irreplaceability	Low	The resource is not damaged irreparably or is not scarce	Low	The resource is not damaged irreparably or is not scarce
Significance	Moderate - negative		Minor - negative	
Comment on significance	If this impact is not mitigated properly, it can cause human rights infringements with dire consequences for the mine			
Cumulative impacts	There is a history of negative impacts associated with relocation in the communities within the social area of influence. This influences all future relocations.			



Ref: 6	
Project phase	Construction
Impact	Loss of livelihoods
Description of impact	Concerns that project may lead to loss of livelihoods as some use site for grazing and agricultural activities
Mitigatability	Medium Mitigation exists and will notably reduce significance of impacts
Potential mitigation	Compensate affected people for loss of livelihood, indigenous plant nursery
Assessment	Without mitigation With mitigation
Nature	Negative Negative
Duration	Permanent Impact may be permanent, or in excess of 20 years Permanent Impact may be permanent, or in excess of 20 years
Extent	Limited Limited to the site and its immediate surroundings Limited Limited to the site and its immediate surroundings
Intensity	High Natural and/ or social functions and/ or processes are notably altered Low Natural and/ or social functions and/ or processes are somewhat altered
Probability	Likely The impact may occur Likely The impact may occur
Confidence	Medium Determination is based on common sense and general knowledge Medium Determination is based on common sense and general knowledge
Reversibility	Medium The affected environment will only recover from the impact with significant intervention Medium The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Medium The resource is damaged irreparably but is represented elsewhere Medium The resource is damaged irreparably but is represented elsewhere
Significance	Minor - negative Minor - negative
Comment on significance	The significance of the unmitigated impact is greater than minor
Cumulative impacts	Communities living adjacent to mines already complain about the impacts on their livelihoods due to environmental impacts. If livelihood strategies are impacted by the proposed project, it would add an extra layer of impacts to existing livelihood impacts.



Ref:		7			
Project phase	Construction				
Impact	Job creation				
Description of impact	Jobs for approximately 1 500 people will be created during the construction phase				
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts			
Potential mitigation	Use local labour as far as possible, recruitment policy, skills development plan				
Assessment	Without mitigation			With mitigation	
Nature	Positive			Positive	
Duration	Short term	impact will last between 1 and 5 years		Short term	impact will last between 1 and 5 years
Extent	Regional	Impacts felt at a regional / provincial level		Regional	Impacts felt at a regional / provincial level
Intensity	Moderate	Natural and/ or social functions and/ or processes are moderately altered		High	Natural and/ or social functions and/ or processes are notably altered
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur		Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur
Confidence	High	Substantive supportive data exists to verify the assessment		Medium	Determination is based on common sense and general knowledge
Reversibility	High	The affected environmental will be able to recover from the impact		High	The affected environmental will be able to recover from the impact
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere		High	The resource is irreparably damaged and is not represented elsewhere
Significance	Moderate - positive			Moderate - positive	
Comment on significance	The significance of the mitigated impact is greater than moderate				
Cumulative impacts	The mine already contributes significantly to employment opportunities in the area, and the proposed project will increase this positive impact.				



Ref:	8				
Project phase	Construction				
Impact	Economic opportunities				
Description of impact	Economic opportunities associated with project for entrepreneurs				
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts			
Potential mitigation	Procure locally as far as possible, local procurement policy				
Assessment	Without mitigation			With mitigation	
Nature	Positive			Positive	
Duration	Short term	impact will last between 1 and 5 years	Short term	impact will last between 1 and 5 years	
Extent	Regional	Impacts felt at a regional / provincial level	Regional	Impacts felt at a regional / provincial level	
Intensity	Moderate	Natural and/ or social functions and/ or processes are moderately altered	High	Natural and/ or social functions and/ or processes are notably altered	
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge	
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact	
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere	High	The resource is irreparably damaged and is not represented elsewhere	
Significance	Moderate - positive			Moderate - positive	
Comment on significance	The significance of the mitigated impact is greater than moderate				
Cumulative impacts	The mine already contributes significantly to entrepreneurial opportunities in the area, and the proposed project will increase this positive impact.				



Ref:	9			
Project phase	Construction			
Impact	Community shareholding			
Description of impact	It is planned that the community will hold shares in the project and lease land to mine			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Establish community trust in collaboration with communities			
Assessment	Without mitigation		With mitigation	
Nature	Positive		Positive	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
Intensity	Very low	Natural and/ or social functions and/ or processes are slightly altered	High	Natural and/ or social functions and/ or processes are notably altered
Probability	Almost certain / Highly probable	It is most likely that the impact will occur	Almost certain / Highly probable	It is most likely that the impact will occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere	High	The resource is irreparably damaged and is not represented elsewhere
Significance	Minor - positive		Moderate - positive	
Comment on significance	The significance of the mitigated impact is greater than moderate			
Cumulative impacts	Through the social and labour plan there are already a positive impact in the community, and the proposed project will increase the positive impact.			



Ref:		10		
Project phase	Construction			
Impact	Traffic impacts			
Description of impact	Increase in traffic creates concerns regarding community safety			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Traffic management plan			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Negative	
Duration	Short term	impact will last between 1 and 5 years	Short term	impact will last between 1 and 5 years
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
Intensity	Moderate	Natural and/ or social functions and/ or processes are moderately altered	Low	Natural and/ or social functions and/ or processes are somewhat altered
Probability	Almost certain / Highly probable	It is most likely that the impact will occur	Likely	The impact may occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Medium	The resource is damaged irreparably but is represented elsewhere	Medium	The resource is damaged irreparably but is represented elsewhere
Significance	Minor - negative		Minor - negative	
Comment on significance	The significance of the mitigated impact is more positive than minor negative			
Cumulative impacts	There are existing traffic impacts associated with the mine, and the proposed project will increase the traffic impacts.			



Ref:		11		
Project phase	Construction			
Impact	Physical infrastructure			
Description of impact	Potential shortage of housing and access to basic services such as water and electricity. Potential presence of construction camp			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Plan contractor housing in advance, construction camp according to international best practice			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Negative	
Duration	Short term	impact will last between 1 and 5 years	Short term	impact will last between 1 and 5 years
Extent	Municipal area	Impacts felt at a municipal level	Municipal area	Impacts felt at a municipal level
Intensity	High	Natural and/ or social functions and/ or processes are notably altered	Low	Natural and/ or social functions and/ or processes are somewhat altered
Probability	Almost certain / Highly probable	It is most likely that the impact will occur	Likely	The impact may occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Medium	The resource is damaged irreparably but is represented elsewhere	Medium	The resource is damaged irreparably but is represented elsewhere
Significance	Minor - negative		Minor - negative	
Comment on significance	The significance of the unmitigated impact is greater than minor			
Cumulative impacts	There will be an increased demand for housing near the construction site			



Ref:	12				
Project phase	Construction				
Impact	Environmental impacts with social dimensions				
Description of impact	Impacts such as dust, noise, light and visual can impact on the quality of life and sense of place of community members				
Mitigatability	High	Mitigation exists and will considerably reduce the significance of impacts			
Potential mitigation	Mitigation measures of relevant specialist studies, community liaison forum				
Assessment	Without mitigation			With mitigation	
Nature	Negative			Negative	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years	
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements	
Intensity	High	Natural and/ or social functions and/ or processes are notably altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered	
Probability	Likely	The impact may occur	Likely	The impact may occur	
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge	
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact	
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere	High	The resource is irreparably damaged and is not represented elsewhere	
Significance	Minor - negative			Minor - negative	
Comment on significance					
Cumulative impacts	These impacts already exist, and will increase with the proposed project, especially for the duration of the construction period.				



Ref:	13				
Project phase	Operation				
Impact	Community expectations				
Description of impact	Communities expect that they should benefit from the mine and its associated project				
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts			
Potential mitigation	Communication strategy, open and honest communication, establish working group with representatives from various communities or interest groups				
Assessment	Without mitigation			With mitigation	
Nature	Negative			Positive	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years	
Extent	Municipal area	Impacts felt at a municipal level	Municipal area	Impacts felt at a municipal level	
Intensity	Very high	Natural and/ or social functions and/ or processes are majorly altered	High	Natural and/ or social functions and/ or processes are notably altered	
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Likely	The impact may occur	
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge	
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention	
Resource irreplaceability	Low	The resource is not damaged irreparably or is not scarce	Medium	The resource is damaged irreparably but is represented elsewhere	
Significance	Major - negative			Moderate - positive	
Comment on significance	This will only be changed in a positive impact with significant input from the proponent, otherwise the mitigation may produce less of a positive impact.				
Cumulative impacts	The communities already have significant expectations of the mine, and any perceived improvements will add to the expectations that the communities have.				



Ref:		14		
Project phase	Operation			
Impact	Community relations			
Description of impact	The relationship between the mine and the community is tense due to mistrust and perception that mine is not delivering on benefits committed to in the past			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Community relations strategy, grievance mechanism			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years
Extent	Municipal area	Impacts felt at a municipal level	Municipal area	Impacts felt at a municipal level
Intensity	Very high	Natural and/ or social functions and/ or processes are majorly altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Almost certain / Highly probable	It is most likely that the impact will occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Medium	The resource is damaged irreparably but is represented elsewhere	Medium	The resource is damaged irreparably but is represented elsewhere
Significance	Major - negative		Moderate - positive	
Comment on significance	It will take significant and ongoing input from the mine to mitigate this impact.			
Cumulative impacts	Due to historic mistrust any new development is viewed with some skepticism from a community perspective			



Ref:		15		
Project phase	Operation			
Impact	Job creation			
Description of impact	Jobs for apparently 50 people will be created during the operation phase			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Use local labour as far as possible, recruitment policy, skills development plan			
Assessment	Without mitigation		With mitigation	
Nature	Positive		Positive	
Duration	Long term	Impact will last between 10 and 15 years	Long term	Impact will last between 10 and 15 years
Extent	Regional	Impacts felt at a regional / provincial level	Regional	Impacts felt at a regional / provincial level
Intensity	Low	Natural and/ or social functions and/ or processes are somewhat altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Almost certain / Highly probable	It is most likely that the impact will occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere	High	The resource is irreparably damaged and is not represented elsewhere
Significance	Moderate - positive		Moderate - positive	
Comment on significance	The significance of the mitigated impact is greater than moderate			
Cumulative impacts	The jobs created will be in addition to existing jobs created by the mine			



Ref:	16				
Project phase	Operation				
Impact	Economic opportunities				
Description of impact	Economic opportunities associated with project for entrepreneurs				
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts			
Potential mitigation	Procure locally as far as possible, local procurement policy				
Assessment	Without mitigation			With mitigation	
Nature	Positive			Positive	
Duration	Long term	Impact will last between 10 and 15 years	Long term	Impact will last between 10 and 15 years	
Extent	Regional	Impacts felt at a regional / provincial level	Regional	Impacts felt at a regional / provincial level	
Intensity	Moderate	Natural and/ or social functions and/ or processes are moderately altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered	
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge	
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact	
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere	High	The resource is irreparably damaged and is not represented elsewhere	
Significance	Moderate - positive			Moderate - positive	
Comment on significance	The significance of the mitigated impact is greater than moderate				
Cumulative impacts	Economic opportunities will be in addition to existing opportunities for entrepreneurs				



Ref:		17		
Project phase	Operation			
Impact	Community shareholding			
Description of impact	Implementation and management of community shareholding			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Manage community trust in collaboration with communities			
Assessment	Without mitigation		With mitigation	
Nature	Positive		Positive	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
Intensity	Very low	Natural and/ or social functions and/ or processes are slightly altered	High	Natural and/ or social functions and/ or processes are notably altered
Probability	Almost certain / Highly probable	It is most likely that the impact will occur	Almost certain / Highly probable	It is most likely that the impact will occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere	High	The resource is irreparably damaged and is not represented elsewhere
Significance	Minor - positive		Moderate - positive	
Comment on significance	The significance of the mitigated impact is greater than moderate			
Cumulative impacts	This will be in addition to existing opportunities created through the social and labour plan			



Ref:			18	
Project phase	Operation			
Impact	Environmental impacts with social dimensions			
Description of impact	Impacts such as dust, noise, light and visual can impact on the quality of life and sense of place of community members			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Mitigation measures of relevant specialist studies, community liaison forum			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Negative	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
Intensity	High	Natural and/ or social functions and/ or processes are notably altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
Probability	Likely	The impact may occur	Likely	The impact may occur
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge
Reversibility	High	The affected environmental will be able to recover from the impact	High	The affected environmental will be able to recover from the impact
Resource irreplaceability	High	The resource is irreparably damaged and is not represented elsewhere	High	The resource is irreparably damaged and is not represented elsewhere
Significance	Minor - negative		Minor - negative	
Comment on significance				
Cumulative impacts	This will be in addition to existing impacts created by the other activities of the mine.			



Ref: 19	
Project phase	Decommissioning
Impact	Community expectations
Description of impact	Communities expect that they should benefit from the mine and its associated project
Mitigatability	Medium Mitigation exists and will notably reduce significance of impacts
Potential mitigation	Communication strategy, open and honest communication, working group with representatives from various communities or interest groups
Assessment	Without mitigation With mitigation
Nature	Negative Positive
Duration	On-going Impact will last between 15 and 20 years On-going Impact will last between 15 and 20 years
Extent	Municipal area Impacts felt at a municipal level Municipal area Impacts felt at a municipal level
Intensity	Very high Natural and/ or social functions and/ or processes are majorly altered High Natural and/ or social functions and/ or processes are notably altered
Probability	Certain / definite There are sound scientific reasons to expect that the impact will definitely occur Likely The impact may occur
Confidence	High Substantive supportive data exists to verify the assessment Medium Determination is based on common sense and general knowledge
Reversibility	Medium The affected environment will only recover from the impact with significant intervention Medium The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Low The resource is not damaged irreparably or is not scarce Medium The resource is damaged irreparably but is represented elsewhere
Significance	Major - negative Moderate - positive
Comment on significance	It would take significant input from the proponent to manage this impact.
Cumulative impacts	This is an ongoing impact and should be managed for the life of the mine. It should be dealt with as part of the closure strategy of the mine.



Ref:	20				
Project phase	Decommissioning				
Impact	Community relations				
Description of impact	The relationship between the mine and the community is tense due to mistrust and perception that mine is not delivering on benefits committed to in the past				
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts			
Potential mitigation	Community relations strategy, grievance mechanism				
Assessment	Without mitigation			With mitigation	
Nature	Negative			Positive	
Duration	On-going	Impact will last between 15 and 20 years	On-going	Impact will last between 15 and 20 years	
Extent	Municipal area	Impacts felt at a municipal level	Municipal area	Impacts felt at a municipal level	
Intensity	Very high	Natural and/ or social functions and/ or processes are majorly altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered	
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Almost certain / Highly probable	It is most likely that the impact will occur	
Confidence	High	Substantive supportive data exists to verify the assessment	Medium	Determination is based on common sense and general knowledge	
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention	
Resource irreplaceability	Medium	The resource is damaged irreparably but is represented elsewhere	Medium	The resource is damaged irreparably but is represented elsewhere	
Significance	Major - negative			Moderate - positive	
Comment on significance	The management if this impact requires significant and ongoing commitment from the proponent.				
Cumulative impacts	Community relations is an ongoing impact that should be managed for the life of the mine.				



Ref:	21			
Project phase	Decommissioning			
Impact	Loss of livelihoods			
Description of impact	Those employed at the facility will become unemployed			
Mitigatability	Medium	Mitigation exists and will notably reduce significance of impacts		
Potential mitigation	Implement measures in accordance with Labour Relations Act			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Negative	
Duration	Permanent	Impact may be permanent, or in excess of 20 years	Permanent	Impact may be permanent, or in excess of 20 years
Extent	Local	Extending across the site and to nearby settlements	Local	Extending across the site and to nearby settlements
Intensity	Very high	Natural and/ or social functions and/ or processes are majorly altered	Moderate	Natural and/ or social functions and/ or processes are moderately altered
Probability	Certain / definite	There are sound scientific reasons to expect that the impact will definitely occur	Almost certain / Highly probable	It is most likely that the impact will occur
Confidence	High	Substantive supportive data exists to verify the assessment	High	Substantive supportive data exists to verify the assessment
Reversibility	Medium	The affected environment will only recover from the impact with significant intervention	Medium	The affected environment will only recover from the impact with significant intervention
Resource irreplaceability	Medium	The resource is damaged irreparably but is represented elsewhere	Medium	The resource is damaged irreparably but is represented elsewhere
Significance	Major - negative		Moderate - negative	
Comment on significance	This impact should be managed throughout the project lifecycle			
Cumulative impacts	Some livelihoods will be lost with decommissioning, and some new livelihoods could be established. Livelihood enhancement strategies should form part of the mine closure and decommissioning process.			



Table 9: Summary of impact ratings.

Ref:	Project phase	Impact	Without mitigation						With mitigation					
			Nature	Duration	Extent	Intensity	Probability	Significance	Nature	Duration	Extent	Intensity	Probability	Significance
1	Construction	Community expectations	Negative	On-going	Municipal area	Very high	Certain / definite	Major - negative	Positive	On-going	Municipal area	High	Likely	Moderate - positive
2	Construction	Community resistance to proposed project	Negative	Short term	Local	High	Almost certain / Highly probable	Minor - negative	Positive	Short term	Local	Low	Likely	Minor - positive
3	Construction	Community relations	Negative	On-going	Municipal area	Very high	Certain / definite	Major - negative	Positive	On-going	Municipal area	Moderate	Almost certain / Highly probable	Moderate - positive
4	Construction	Uncertainty	Negative	Short term	Local	Moderate	Almost certain / Highly probable	Minor - negative	Positive	Short term	Local	Moderate	Almost certain / Highly probable	Minor - positive
5	Construction	Relocation	Negative	Permanent	Limited	Very high	Almost certain / Highly probable	Moderate - negative	Negative	Permanent	Limited	High	Likely	Minor - negative
6	Construction	Loss of livelihoods	Negative	Permanent	Limited	High	Likely	Minor - negative	Negative	Permanent	Limited	Low	Likely	Minor - negative
7	Construction	Job creation	Positive	Short term	Regional	Moderate	Certain / definite	Moderate - positive	Positive	Short term	Regional	High	Certain / definite	Moderate - positive
8	Construction	Economic opportunities	Positive	Short term	Regional	Moderate	Certain / definite	Moderate - positive	Positive	Short term	Regional	High	Certain / definite	Moderate - positive
9	Construction	Community shareholding	Positive	On-going	Local	Very low	Almost certain / Highly probable	Minor - positive	Positive	On-going	Local	High	Almost certain / Highly probable	Moderate - positive
10	Construction	Traffic impacts	Negative	Short term	Local	Moderate	Almost certain / Highly probable	Minor - negative	Negative	Short term	Local	Low	Likely	Minor - negative
11	Construction	Physical infrastructure	Negative	Short term	Municipal area	High	Almost certain / Highly probable	Minor - negative	Negative	Short term	Municipal area	Low	Likely	Minor - negative
12	Construction	Environmental impacts with social dimensions	Negative	On-going	Local	High	Likely	Minor - negative	Negative	On-going	Local	Moderate	Likely	Minor - negative



13	Operation	Community expectations	Negative	On-going	Municipal area	Very high	Certain / definite	Major - negative	Positive	On-going	Municipal area	High	Likely	Moderate - positive
14	Operation	Community relations	Negative	On-going	Municipal area	Very high	Certain / definite	Major - negative	Positive	On-going	Municipal area	Moderate	Almost certain / Highly probable	Moderate - positive
15	Operation	Job creation	Positive	Long term	Regional	Low	Certain / definite	Moderate - positive	Positive	Long term	Regional	Moderate	Almost certain / Highly probable	Moderate - positive
16	Operation	Economic opportunities	Positive	Long term	Regional	Moderate	Certain / definite	Moderate - positive	Positive	Long term	Regional	Moderate	Certain / definite	Moderate - positive
17	Operation	Community shareholding	Positive	On-going	Local	Very low	Almost certain / Highly probable	Minor - positive	Positive	On-going	Local	High	Almost certain / Highly probable	Moderate - positive
18	Operation	Environmental impacts with social dimensions	Negative	On-going	Local	High	Likely	Minor - negative	Negative	On-going	Local	Moderate	Likely	Minor - negative
19	Decommissioning	Community expectations	Negative	On-going	Municipal area	Very high	Certain / definite	Major - negative	Positive	On-going	Municipal area	High	Likely	Moderate - positive
20	Decommissioning	Community relations	Negative	On-going	Municipal area	Very high	Certain / definite	Major - negative	Positive	On-going	Municipal area	Moderate	Almost certain / Highly probable	Moderate - positive
21	Decommissioning	Loss of livelihoods	Negative	Permanent	Local	Very high	Certain / definite	Major - negative	Negative	Permanent	Local	Moderate	Almost certain / Highly probable	Moderate - negative



7.3 The Anglo American Social Way

The Social Way Policy applies to Anglo American-managed sites globally, throughout their life of asset. It provides a framework and underlying principles for social performance management, with the vision to deliver a lasting, positive contribution to local communities and those adversely affected by their activities.

In line with the International Principles of SIA, the Social Way is also a rights-based approach. The Social way breaks down social and human rights impacts into six categories namely: Economic; Personal and Political Security; Socio-Cultural Networks; Infrastructure and Services; Cultural Heritage; and Community Health and Safety. The table below indicates the Social Way category, and which impacts in this report fall within that category.

Table 10: Social Way and impacts identified

Social Way Category	Impact identified and discussed
Economic	Job creation Economic opportunities Community shareholding Loss of livelihoods
Personal and political security	Uncertainty Relocation
Socio-Cultural Networks	Community expectations Community resistance to the project Community relations
Infrastructure and Services	Traffic impacts Physical infrastructure
Cultural Heritage	Loss of livelihoods Relocation
Community Health and Safety	Environmental impacts with social dimensions



7.4 Social Impact Management Plan

SOCIAL IMPACT MANAGEMENT PLAN				
Phase	Management action	Timeframe for implementation	Responsible party for implementation (frequency)	Responsible party for monitor/audit/review (frequency)
Planning and Design Phase	Develop social impact management plan	As soon as project enters public domain	Applicant	CLO <i>Internal once appointed</i>
	Appoint appropriately qualified community liaison officer (CLO) to deal with social aspects of the project throughout the life of the project	Before consultation with stakeholders start (excluding EIA consultation)	Applicant Appointment for the life of the project (there are existing CLOs in employed by Anglo)	Not required apart from usual HR processes
	Include project in existing community relations strategy	Before consultation with stakeholders start (excluding EIA consultation)	Applicant Continued for the life of project	CLO <i>Internal</i> <i>No external review required</i>
	Develop safety plan, access protocols, grievance mechanism and compensation policy. Make sure any existing policies are implanted.	In consultation with stakeholders	Applicant Continued for the life of project	CLO <i>Internal</i> <i>No external review required</i>
Construction Phase	Monitoring of social mitigation and management measures	Throughout construction	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>



	Implementation of community relations strategy	Throughout construction	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>
	Implement safety plan, access protocols, grievance mechanism and compensation policy	Throughout construction	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>
Operation Phase	Monitoring of social mitigation and management measures	Throughout operation	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>
	Implementation of community relations strategy	Throughout operation	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>
	Implement safety plan, access protocols, grievance mechanism and compensation policy	Throughout operation	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>
Decommissioning, Closure and Rehabilitation Phase	Implement safety plan, access protocols, grievance mechanism and compensation policy	Throughout decommissioning until all rehabilitation activities have ceased	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>
	Continue community relations strategy until all activities on site cease and rehabilitation is completed	Throughout decommissioning until all rehabilitation activities have ceased	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>
	Implement social mitigation for closure	Throughout decommissioning	Applicant (CLO) Continued for the life of project	Management <i>Once a year or as required</i>

8 Conclusion and recommendations

The site for proposed PV facility is in a rural area where there is a great demand for jobs and few opportunities for employment. A number of settlements are in close proximity to the Mogalakwena mine and proposed site. The relationship with the mine is strained in some instances, and there is conflict between some community groups. The impacts associated directly with the construction and operation of a PV plant are not major. However, the strained relations between the mine, and the strained relations between some community groups pose a significant business risk to the project. It must be noted that the community will consider any projects associated with the mine as belonging to the mine. The relationship between the mine and the communities can improve, but it will take hard work from the mine to win back the trust of the communities. Existing conflict between community groups, will make this task even more challenging. Although the PV facility will be constructed and managed by an independent supplier, it is the mine that has poor social license to operate and is therefore the party responsible for repairing relations with the communities to reduce the business risk for the PV facility, keeping in mind that the mine will be the sole recipient of the power generated at the facility.

The following recommendations are made:

- The IPP must ensure that its external grievance mechanism is community-friendly and updated in conjunction with communities;
- The IPP must include the project in the existing community relations strategy to guide its involvement with the community. The strategy should include feedback mechanisms about aspects of concern to the community;
- The IPP should have a recruitment policy that is communicated to stakeholders;

- The IPP should establish a labour desk or use existing structures for labour recruitment and put measures in place to ensure the most effective local employment strategy;
- The IPP should consider having a skills development plan to develop skills in the community to enable sourcing a greater portion of local labour;
- The IPP should engage with local entrepreneurs to maximise the availability of local economic opportunity. The IPP can consider facilitating the establishment of a local business association if it does not already exist.
- The IPP should implement a communications strategy that share information and facts with the community that will address their information needs;
- The IPP should compile a relocation action plan and livelihood restoration plan to inform any potential relocation and loss of livelihoods;
- Community shareholding should be planned in collaboration with the local communities. The IPP should consider establishing a community trust that is administered by a board that consist of a range of representatives, including representatives from the local communities.
- Develop a traffic management plan that will enhance community safety.
- Plan housing and infrastructure needs in advance. If there is a construction camp, it must be done in consultation with the surrounding neighbours and according to international best practice.

The change in footprint will most likely not cause any additional impacts other than those that were identified in the original SIA report and have been incorporated in this report. Should any new concerns arise in the project affected communities during the Public Participation Process it will be included in the final SIA report and assessed accordingly.

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