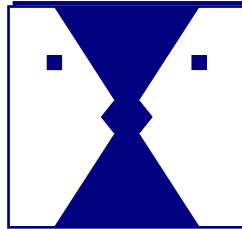


APPENDIX J: SOCIAL COMPLIANCE ASSESSMENT

# MOGALAKWENA MINE HYDROGEN PRODUCTION DEVELOPMENT FACILITY

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Social Statement



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## Record of experience

Ilse Aucamp holds a D Phil degree in Social Work obtained from the University of Pretoria in 2015. She also has Masters' degree in Environmental Management (Cum Laude) from the Potchefstroom University for Christian Higher Education which she obtained in 2004. Prior to that she completed a BA degree in Social Work at the University of Pretoria.

Dr Aucamp is an experienced facilitator, trainer and lecturer and presents modules on social impact assessment and public participation on several short and university courses. She is past chairperson of the sections coordinating committee of the International Association for Impact Assessment (IAIA) having been section chair for the SIA section before. She has served on the National Executive Committee of IAIA's South African affiliate for a number of years. 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. In 2016 and 2017 she was invited to be part of the *Expert Meeting on Non-discrimination* for the World Bank's Environmental and Social Framework. The aim of the group is to assist the World Bank with writing guidance notes for the framework on how to engage with vulnerable groups such as children, the elderly and disabled people. In addition, Dr Aucamp assisted the Government of the Seychelles with developing a SIA framework for the country.

Dr Aucamp has managed and conducted several public participation processes during her career. Dr Aucamp has conducted more than 117 social impact assessments during the last nineteen years. These include assessments on different kinds of projects, from housing developments, energy projects, transport projects, to mining and recreational projects. Her experience includes facilitation and training, strategic assessments, social management and monitoring plans and social development initiatives.

## 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.

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## 1 Introduction and background

Anglo American Platinum Limited (AAP) - Rustenburg Platinum Mines (RPM) proposes to expand their existing Proof of Concept hydrogen production facility, with the inclusion of a hydrogen Production Development Platform (PDP) within the Mining Right area of the Mogalakwena Mine (the Project). The Mogalakwena Mine is an open pit platinum mine located approximately 20 km north-west of the town of Mokopane in the Waterberg District Municipality and the Mogalakwena Local Municipality of Limpopo Province. The hydrogen Production Development Platform Project will be located inside the footprint of the already approved Proof of Concept hydrogen production facility on the Farm Zwartfontein 818 LR, covering an area of approximately 8 ha.

Anglo American is committed to being part of the solution to climate change and aim to play their part in maintaining global temperature rise to below 2°C as called for by the Paris Agreement. South Africa is particularly vulnerable to climate change impacts and have developed a strategic response as set out in the Climate Change Bill (2018). Anglo American has committed to achieve carbon neutrality on Scope 1 and 2 emissions and to reduce their Scope 3 emissions by 50% by 2040, across their operations.

One way to achieve this is through FutureSmart Mining™, an Anglo American innovation-led approach to sustainable mining. Integral to FutureSmart Mining™ is the Sustainable Mine Plan, designed to tackle the most pressing environmental, social and governance challenges such as climate change. The Anglo American Green House Gas emission reduction ambitions are built on the following :

- Scope 1: Deployment of FutureSmart Mining™ is central to reducing energy demand and delivering the step-change innovation required for avoiding emissions, including the capture and use of fugitive methane.
- Scope 2: The procurement and rapid roll-out of renewable power supply, including through embedded generation where necessary.

As part of this commitment, Anglo American has implemented the NuGen™ programme as part of their FutureSmart Mining™ programme in order to develop a hydrogen-powered mining truck fleet in collaboration with leading fuel cell, electrolyser, battery and engineering firms. The NuGen™ technology development programme is focused on decarbonising mine



haulage and building onsite hydrogen production. This was pilot tested through the Proof of Concept Plant at the Mogalakwena Mine.

The Proof of Concept Plant was aimed at determining the success and practicality of using hydrogen as a renewable fuel medium, thereby reducing the reliance on non-renewable fossil fuel and subsequently reducing their carbon emissions and carbon footprint. The Proof of Concept Plant comprises three components:

1. Hydrogen Generating Plant;
2. Hydrogen Fuel Cell technology demonstration; and
3. Solar Photo Voltaic (PV) Plant.

As part of the hydrogen Production Development Platform Project, the Proof of Concept Plant will have to be expanded with additional refuelling and distribution components to supply three additional mine haul trucks with hydrogen. The hydrogen Production Development Platform project will ultimately connect the hydrogen production and mine haul truck application through the establishment of a Deploy Ultra Heavy-Duty refuelling system, using commercially available equipment. The aim of the Project is to rapidly refuel the mine haul trucks at high pressure (Export-Transport-Refuel System), and to ensure ample hydrogen storage availability on trucks (e.g., high-capacity tube trailers) for transportation to the mine pits. This will require the development of fixed high-pressure and mobile low-pressure hydrogen storage infrastructure/ facilities. The total additional storage of hydrogen required will be approximately 188.46 m<sup>3</sup> (39,2/ 38.66/ 34,58 m<sup>3</sup> fixed and 149.8 m<sup>3</sup> mobile storage), with a total combined hydrogen storage capacity of 266.46 m<sup>3</sup>.

## 2 Brief social context

This section provides a brief overview of the socio-economic environment where the proposed project will be situated. The proposed project will be located in Ward 13 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.

The **Mogalakwena Local 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).

The following table summarise some of the population statistics of Ward 13. From the table below it can be seen that Ward 13 have a young population and high unemployment rates. Education rates are low and there are more females than males in the ward. Sepedi is the dominant language spoken in the ward. Most people live in traditional houses and access to water and sanitation inside the house is low.

**Table 1: Summary of selected Ward 13 socio-economic statistics**

Category	Ward 13
Population	99% black population
Average age	26
Age distribution	Approximately 70% under 34 – young population
Sex distribution	54.6% female, 44.4% male
Home language	88.5% Sepedi
Education	19.3% completed Gr 12





Employment rate	17.1% employed, 20.6% unemployed, 10.8 discouraged work seeker, 51.5 not economically active
Employment sector (those aged between 15 and 65)	71.8% employed in formal sector, 18% employed in informal sector, 9.8% private household
Annual household income	16.9% no income, 6.5% R1 – R4 800, 13.4% R4801 – R9 600, 26.4% R9 601 – R19 600, 23% R19 601 – R38 200. Rest of population above R38 200 per annum.
Housing	97.2% traditional houses
Piped water	12.2% piped water in house, 50.2% pipe in yard, 15.6% pipe less than 200m away from residence, 13.1% no access to piped water.
Energy source for lighting	92.7% access to electricity
Sanitation	66.1% pit toilet without ventilation, 24.1% pit toilet with ventilation
Refuse removal	83.2% own refuse dump

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 2) 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 ward 13 is higher than on provincial and district. This suggests high levels of poverty in this area.

**Table 2: 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

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 3), 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 3: 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

The Mogalakwena Mine is situated in a complex socio-economic environment. The communities surrounding the mine have been subjected to numerous impact assessments for different projects. Relationships between some of the communities around the mine is strained, and in the past there has been incidents of violence and volatility.

Conflicts about leadership is a historical issue and remains a challenge to the management of community relations. These historical issues impact on any community engagement processes taking place in the study area. Some of the leadership battles have caused significant divisions within the communities in the area of influence. The fact that the Environmental Impact Assessment (EIA) process focus on a site-specific development within a complex social environment means that a number of issues irrelevant to the EIA process continues to appear in the community engagement process.

### 3 Social considerations

There are a number of factors that must be considered when a decision about the nature and level of public involvement are contemplated. It must be acknowledged that a staff complement of approximately 150 individuals will be required for the construction phase, hereby providing skilled and unskilled job opportunities. The construction phase is expected to last 15 months. This is a temporary impact but given the high levels of unemployment in the area, it will have a significant positive social impact in the short term.

The operational phase will provide additional job opportunities for approximately five individuals. This will create a positive impact in the lives of those five individuals and their

families. The proponent undertakes to source procurement locally, as far as possible which can also potentially create positive social impacts.

The following factors must be considered in the project-affected communities:

- Current community conflict and leadership battles.
- Planning of a number of smaller projects subjected to EIAs, public consultation and SIAs in the project area.
- Stakeholder expectations about community benefits from each project.
- Stakeholder fatigue.
- Mogalakwena Reset project and associated community consultations.
- Community politics and social license to operate.
- Confusion amongst community members about different studies taking place.
- There were numerous socio-economic baseline assessments undertaken within the area in the recent past, and some are still underway.

Anglo American is trying to streamline and coordinate the statutory processes taking place in the area. At the same time, they aim to minimise stakeholder fatigue and ensure that international best practice is used in any interaction with communities. All consultation activities are reviewed by the Mogalakwena Stakeholder Engagement Team and aligned with the IFC Performance Standards and Anglo-American Social Way.

## 4 Conclusions and recommendations

Given that the Project will be undertaken within a disturbed area within the existing operations (Proof of Concept Plant), it is not expected that any additional social risks or impacts will be created. There will be a short term positive economic impact through job creation and local procurement in the construction phase. The complex socio-economic environment means that social and community interaction must be managed carefully, otherwise it may become a negative impact. There are current socio-economic studies that have been conducted in the social area of influence, therefore an updated social baseline is available. In order to achieve the best possible outcome for the communities, it is recommended that all social consultation should be channelled through the Mogalakwena Stakeholder Engagement Team. Given available information and interactions with project affected communities, it is my opinion that a social impact assessment for this project would not add any additional value.



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