



SOCIO-ECONOMIC IMPACT REPORT

UPINGTON SITE I
SERVICE PROVISION PROJECT
DAWID KRUIPER MUNICIPALITY
MAY 2023

SOCIO-ECONOMIC IMPACT REPORT

Uppington Site 1 Service Delivery project, Northern Cape

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ACRONYMS, ABBREVIATIONS AND GLOSSARY

Acronyms & Abbreviations	
DoE	Department of Energy
DM	District Municipality
EA	Environmental Authorisation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
GDP	Gross Domestic Product
GNR	Government Notice
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
IEP	Integrated Energy Plan
IRP	Integrated Resource Plan
km	Kilometre
LM	Local Municipality
NEMA	National Environmental Management Act (No. 107 of 1998)
NDP	National Development Plan
O&M	Operation and Maintenance
PGDS	Provincial Growth and Development Strategy
PICC	Presidential Infrastructure Coordinating Committee
PSDF	Provincial Spatial Development Framework
SDF	Spatial Development Framework
SIA	Social Impact Assessment
SIP	Strategic Infrastructure Project

EXECUTIVE SUMMARY

The Socio-Economic Impact Assessment conducted for the formalization of services in informal settlements project in the Upington area within the Dawid Kruiper Municipality has provided valuable insights into the social and economic implications of the proposed development. The assessment aimed to address the housing and service needs of individuals residing in informal settlements while considering the broader socio-economic context of the region.

The assessment identified key socio-economic issues, including inadequate access to basic services, housing shortages, and socio-economic disparities. By formalizing services in the informal settlements, the project aims to improve living conditions, enhance safety, and provide equal opportunities for all residents. The proposed development aligns with national, provincial, and local policy frameworks, emphasizing inclusive housing development, improved service delivery, and sustainable urban development.

Positive impacts identified during the construction phase include job creation, stimulated local economic activity, enhanced skills development, improved access to basic services, and infrastructure development. These impacts can contribute to local economic growth, skill enhancement, and improved living conditions for residents. However, it is essential to mitigate temporary inconveniences, disruptions, and potential displacement during the construction phase. Mitigation measures such as effective project management, stakeholder engagement, and support to affected individuals can help minimize negative impacts and ensure a smoother transition.

The assessment also highlighted the importance of enhanced access to basic services, amenities, and infrastructure development in informal settlements. These positive impacts can lead to improved living conditions, increased social inclusion, and enhanced community development. However, potential challenges such as temporary inconveniences, disruptions to local businesses, and short-term social and economic challenges for affected residents should be addressed. Mitigation measures such as effective project scheduling, stakeholder engagement, and support mechanisms can help minimize these negative impacts.

The assessment found that the project enjoys support from stakeholders, and there are no fatal flaws that cannot be successfully mitigated. By implementing appropriate mitigation and enhancement measures, the project can maximize its positive impacts while carefully managing and mitigating potential negative consequences. Affordability, job creation, community engagement, environmental management, and collaboration with stakeholders are essential aspects to consider in the project's implementation.

The assessment report includes specific recommendations for enhancing affordability, creating job opportunities, engaging the community, managing environmental impacts, and establishing effective monitoring and evaluation mechanisms. These recommendations aim to guide the formalization of services in informal settlements, address concerns, maximize benefits, and ensure sustainable socio-economic development. Through collaboration, ongoing stakeholder engagement, and the implementation of mitigation measures, the project can achieve its objectives and contribute to social inclusion, economic growth, and improved quality of life for residents in informal settlements.

In conclusion, the Socio-Economic Impact Assessment provides a comprehensive analysis of the potential social and economic effects associated with the formalization of services in informal settlements project. The assessment recognizes the importance of addressing socio-economic challenges, enhancing living conditions, promoting equitable development, and creating sustainable opportunities for the community. By considering affordability, implementing mitigation measures, and engaging stakeholders, the project can maximize its positive impacts while minimizing any negative consequences. The project's alignment with policy frameworks and its potential to contribute to sustained economic growth, improved infrastructure, and enhanced local services make it a promising endeavor for the socio-economic development of the area.

APPROACH TO THE STUDY

The development of renewable energy is strongly supported at a national, provincial, and local level. The development of and investment in renewable energy is supported by the National Development Plan (NDP), New Growth Path Framework and National Infrastructure Plan, which all refer to and support renewable energy. The development of the proposed PV Facility is therefore supported by key policy and planning documents.

The approach to the SIA study is based on the Western Cape Department of Environmental Affairs and Development Planning Guidelines for Social Impact Assessment (February 2007). These guidelines are based on international best practice. The key activities in the SIA process embodied in the guidelines include:

- Describing and obtaining an understanding of the proposed intervention (type, scale, location), the settlements and communities likely to be affected by the proposed project
- Collecting baseline data on the current social and economic environment;
- Identifying the key potential social issues associated with the proposed project.
- Assessing and documenting the significance of social impacts associated with the proposed intervention
- Identifying alternatives and mitigation measures
- The study therefore involved:
 - Review of demographic data from Census Survey and other available sources;
 - Review of relevant planning and policy framework for the area;
 - Review of information from similar studies;
 - Review of documented government experience and expectations associated with solar energy projects.
 - Community survey involving 94 local community members as respondents.

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1. INTRODUCTION

Eco-Thunder Consulting was commissioned by EnviroAfrica CC as the lead consultant to manage the Socio-economic Impact Assessment (SEIA) process for the establishment of the proposed Upington Site 1 Service Delivery project near Upington in the Northern Cape Province.

This report contains the findings of the SEIA undertaken as part of the broader Environmental Impact Assessment (EIA) process.

1.1. Terms of Reference

This SEIA Report has been prepared as part of the Environmental Impact Assessment (EIA) process being undertaken for Upington Site 1 Housing Development and associated infrastructure. The purpose of this SEIA Report is to provide details on the nature and extent of development and the potential socio-economic impacts associated with the construction, operation, and decommissioning of the project. The inputs contained within this SEIA Report are intended to provide a high-level overview of the socio-economic environment within which the project is proposed and identify potential social and economic issues which will be addressed in detail as part of the EIA process specialist investigations.

The objective of this SEIA Report is therefore to:

- Identify and review policies and legislation which may have relevance to the activity from a socio-economic perspective.
- Provide comment on the need and desirability of the proposed activity from a socio-economic perspective.
- Identify potential impacts and risks associated with the preferred activity and technology alternatives.
- Identify key social issues to be addressed in the EIA phase.
- Agree on the level of assessment to be undertaken, including the methodology to be applied to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site.
- Identify suitable measures to avoid, manage or mitigate identified social and economic impacts and determine the extent of residual risks that need to be managed and monitored.

1.2. Specialist Details

Eco-Thunder Consulting (ETC) is a 100% woman-owned, private company that specializes in a range of specialist studies, such as socio-economic research, economic development planning, development program design and implementation as well as community trust management. Based in Johannesburg, South Africa, Eco-Thunder has established itself as an expert on the conditions, needs and assets of communities that are linked to independent power generation facilities.

ETC has conducted research on behalf of and advised IPPs since 2017. Its client base is thus comprised of IPPs that have been successful across all the REIPPPP bidding rounds. ETC also implements development programs in energy communities, which ensures a comprehensive understanding of the how to drive positive social impact.

1.3. Report Structure

The report is organised into six sections:

- Section 1: Introduction.
- Section 2: Methodology & Approach.
- Section 3: Policy and Planning Review.
- Section 3: Overview of the Study Area.
- Section 5: Assessment of Key Socio-economic Issues and Impact.
- Section 6: Conclusions and Impact Statement.

1.4. Project Description

In order to provide the necessary services and ownership to persons currently living on informal erven in the Upington area within the Dawid Kruiper Municipality.

The following property is being investigated as part of this study (Please refer to figure 1 for a detailed locality map):

- Previous SEZ site where illegal structures are (Erf 23228 , Upington)

It has been proposed that the farm portions on which the illegal activities have commenced be utilized as residential units to formalize the housing and provide adequate services in the Upington area. Currently, illegal structures occupy both sites, and it has been established that formalizing housing for individuals residing there would be of greater social benefit than relocating them.

The town of Upington, located centrally within the Northern Cape Province, has experienced a steep increase in employment opportunities, leading to a direct increase in the need for goods, services, and especially housing. Site 1 which is located adjacent to the R360 has been identified as suitable for “upgrading” by the Spatial Development Framework of the Municipality.

The proposed upgrade will contribute positively to the land value of the involved property as well as that of surrounding properties. The development will entail a high-quality, partly temporary and partly permanent, residential development that will greatly contribute to the western entrance of the town of Upington.

The current situation in Upington shows a decrease in formal dwellings from 81.2% in 2001 to 75.2% in 2011, mainly due to the establishment of informal settlements and slow delivery of subsidised houses. This is an important factor that is now being focused on in the Spatial Development Framework, and the formalisation of areas for future projects remains a priority. The backlog of housing is currently estimated at approximately 7450, and the demand is expected to grow to about 8000 in the short term.

The proposed development will assist in providing basic services for the community, contributing to the improvement of the standard of living of the residents. Additionally, the Upington area will benefit from the rates and taxes that will be paid by the residents.

The bioregional approach is a key focus in promoting sustainability in the DKLM (Dawid Kruiper Local Municipality), which includes the Kalahari Desert and the Orange River. These are critical ecosystems that many people depend on daily for their livelihood and normal life to some extent. The approach aims to meet human demands for everyday life, including housing, food, energy, relaxation, and places to function and work in while acknowledging the natural environment.

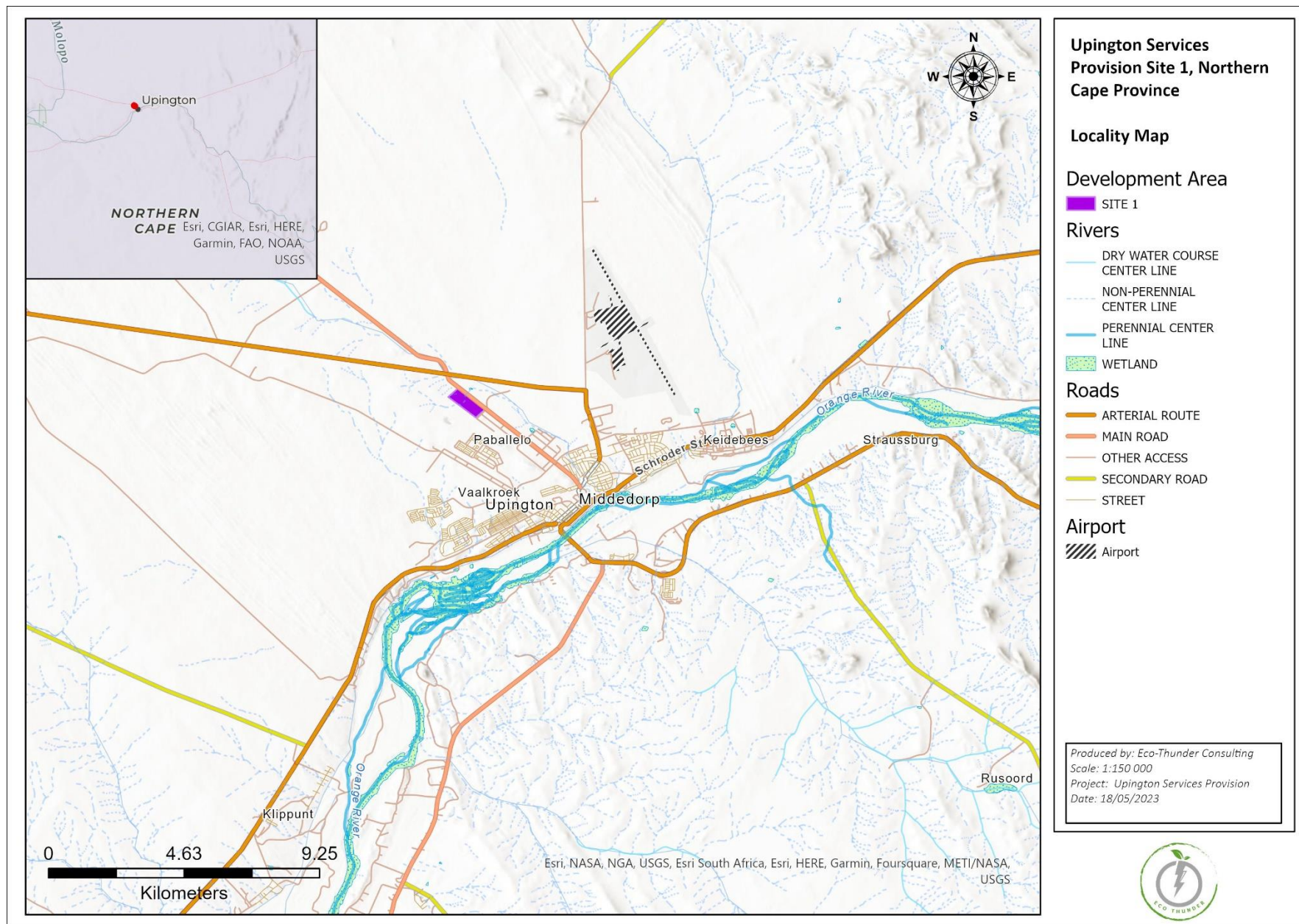


Figure 1.1: Upington Services Provision Site 1 Locality Map

1.5. Project Location

Upington, located within the Dawid Kruiper Local Municipality (DKLM) in the Northern Cape Province of South Africa, is an urban area with diverse features and surroundings. Situated near the Orange River, the town experiences a hot and arid climate.

The study area for the proposed project is bordered by the N10 to the east and north, and the R360 to the west. Upington International Airport is situated to the east, and an existing industrial area is adjacent to the study area.

DKLM, part of the ZF Mgcawu District Municipality, is the second largest district municipality in the Northern Cape Province. Upington is the largest town in DKLM, serving as a regional hub. The municipality shares borders with Namibia, the Kgalagadi Transfrontier Park, and Botswana. It is home to the ǀKhomani San and Mier Communities.

The topography of the site is characterized by a generally flat landscape with slight undulations, sloping from elevated ground in the northwest towards the Orange River. A notable ridge/watershed runs east of the proposed sites, serving as a visual landmark and mitigating visual impacts.

The study area consists of undeveloped grassland and shrubs, historically used for livestock farming. Grape vineyards and other crops dominate the land use along the N14 road and near the Orange River. Linear features like fences, roads, powerlines, and railway lines fragment the landscape. To the southwest, there are renewable energy facilities, including photovoltaic farms and a concentrating solar power facility.

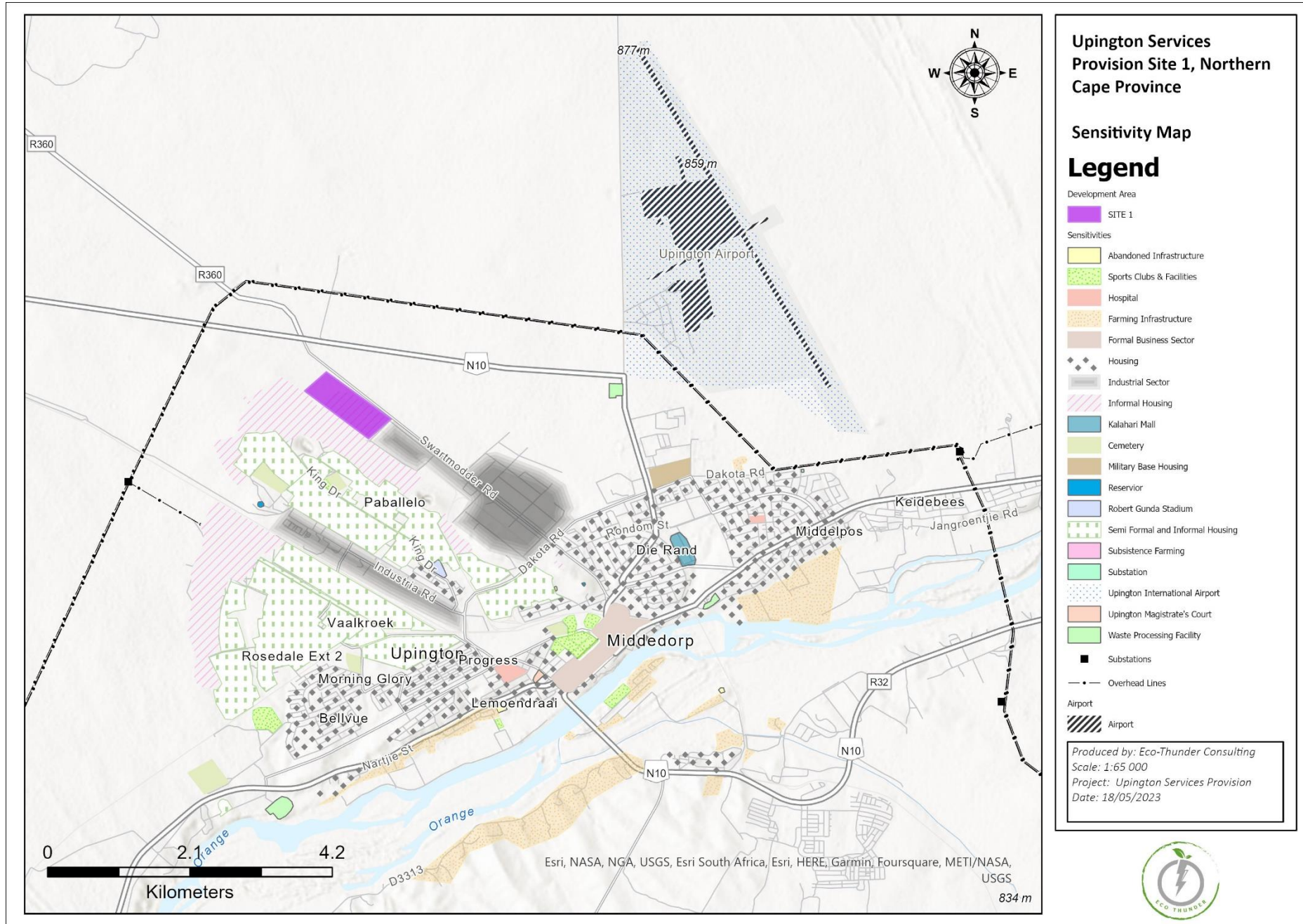


Figure 1.2. Overview of the Upington Services Provision Site 1 Sensitivities

From a social perspective some key aspects in terms of the landscape have been identified which may have a positive impact on the development of which can be seen on **figure 1.2**.

Rivers and streams	Prominent rivers or streams include. <ul style="list-style-type: none"> • Orange River • As well as artificial and natural wetlands and pans 	Development which impacts rivers or stream are not advised, the area houses subsistence farmers which make use of these hydrological features and therefore may carry a negative social rating if impacted.	Negative if developed
Main access roads	The main access roads are: <ul style="list-style-type: none"> • N10 • N14 • R360 • Groef Cres • Pluto St 	These will provide access for the components of the housing development to be transported along, as well as for the workers to gain access, it is therefore important that public transport exists along these routes, which was confirmed during the site visit.	Positive social
Existing fencing	Fencing around informal housing settlements.	These fences are already placed around surrounding area and can be removed where the housing project will be developed and create a pleasant visual aspect of formalizing the neighbourhood	Positive Social
Abandoned buildings	The area has abandoned infrastructure including abandoned or heavily degraded buildings which appear to have been used for housing of farming staff	These buildings are in close proximity to the development footprint and could be utilized by the developer to provide temporary residence for developers or security. These buildings could also pose a security risk during construction for individuals using the access road or for locals in close proximity and special attention must therefore be given to utilizing or securing these.	Positive or Negative
International Airport	Transportation hubs that facilitate domestic and international air travel.	No direct anticipated social impact.	Positive Social
Agricultural development	Pivots and small holdings within 5km from the development area	The development is broadly surrounded with mixed agricultural region.	Positive Social
Informal settlements	Small clustered residential developments located in close proximity to and directly in development area.	These areas house mainly unemployed unskilled or semi-skilled labour which may be able to be provided with employment and skills development training during the construction of housing project.	Positive Social
Prison	Correctional facility within proximity to the housing development, on the main access road.	No direct anticipated social impact.	Positive or Negative

Mixed residential	Along the main access road amongst the residential areas are some mixed residential homes ranging between formal, semi formal.	These areas house mainly employed skilled or semi-skilled labour.	Positive Social
Mixed Industrial	Small to medium scale economic activities which take place within the local community such as small shops, processing plants, industrial activities, towing companies, etc.	Activities which could provide goods and services on a local scale to the developers during the construction and operational phases of development which will stimulate the local economy	Positive social
Mixed Consumer			
Cemetery	No Impacts anticipated or comments received.		
Military Base	No Impacts anticipated or comments received.		
Schools	Kindergarten, primary schools and secondary schools located in close proximity to the development area and in surrounding area of 5km radius.	Well-maintained schools in close proximity to development who has direct impacts from the housing development, creating better living standards in surrounding community. Schools in surrounding area of 5km radius has no direct impacts from the housing development.	Positive Social
Protected areas	No Impacts anticipated or comments received.		
Towns and settlements	Residences found within the study area include: <ul style="list-style-type: none"> • Blydeville • Oosterville • Middelpoort • Rand • Florapark • Paballelo • Hillside • Mountainview • Belview • Upington Extension • Progress 	Alternative employment opportunities will be provided to the local community members, although the employment opportunities are anticipated to be limited.	Positive social

Upington serves as a regional hub, attracting residents from neighboring towns and villages. The town has a mix of residential, commercial, and industrial areas. Residential neighborhoods consist of a blend of modern housing and traditional dwellings. The town center is characterized by shops, restaurants, and government buildings.

Upington's economy is primarily driven by agriculture, mining, and tourism. Agriculture plays a significant role due to the fertile soil and access to water from the Orange River. The region is known for vineyards, fruit orchards, and cotton farming. Mining activities focus on diamonds, copper, and other minerals. The town also serves as a gateway to popular tourist destinations such as the Augrabies Falls National Park and the Kgalagadi Transfrontier Park, attracting visitors interested in wildlife and nature.







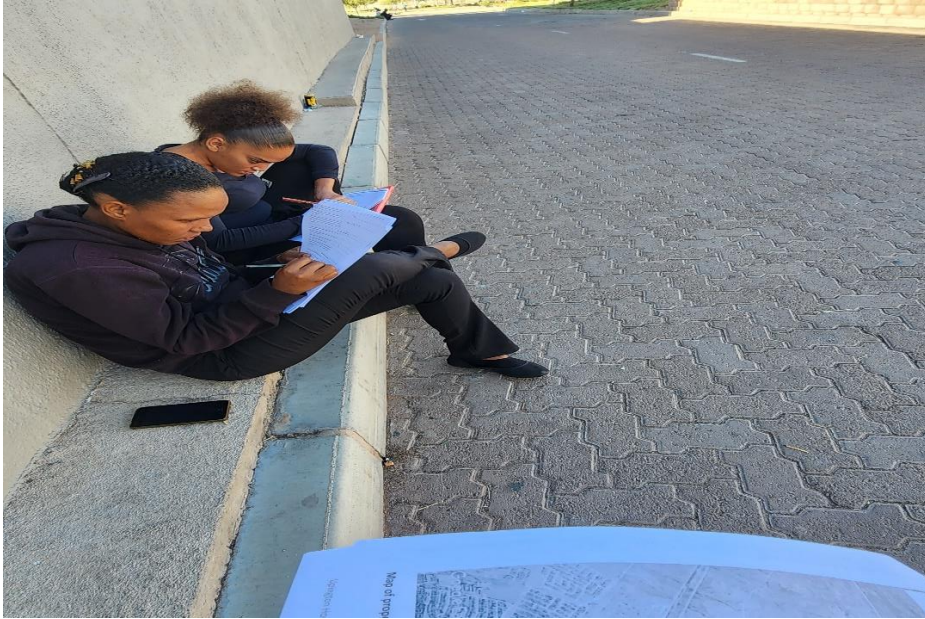


Figure 1.3 to 1.17: Site Photos

2. METHODOLOGY AND APPROACH

2.1. Purpose of the Study

The International Principles for Socio-economic Impact Assessment define SEIA as:

“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 those interventions”.

The International Principles for Socio-economic Impact Assessment define social and economic impacts as changes to one or more of the following:

- People’s way of life – that is, how they live, work, play and interact with one another on a day-to-day basis.
- Their culture – that is, their shared beliefs, customs, values and language or dialect.
- Their community – its cohesion, stability, character, services and facilities.
- Their political systems – the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose.
- Their environment – the quality of the air and water people use, the availability and quality of the food they eat, the level of hazard or risk, dust and noise they are exposed to, the adequacy of sanitation, their physical safety, and their access to and control over resources.
- Their health and wellbeing – health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity.
- Their personal and property rights – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties.
- Their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

The purpose of this SEIA Process is therefore to:

- Provide baseline information describing the socio-economic environment within which the project is proposed, and which may be impacted (both positively and negatively) as a result of the proposed development.
- Identify, describe and assess possible social risks/fatal flaws and social impacts that may arise as a result of the proposed development (in terms of the detailed design and construction, operation, and decommissioning phases of the project).
- Recommend ways in which negative impacts can be avoided, minimised, or their significance reduced, and positive impacts maximised or enhanced.

2.2. Approach to Study

The approach to the EIA Level SEIA study is based on the Western Cape Department of Environmental Affairs and Development Planning Guidelines for Socio-economic Impact Assessment (*February 2007*). These guidelines are based on international best practice. The key activities in the SEIA process embodied in the guidelines include:

- Describing and obtaining an understanding of the proposed intervention (type, scale, and location), the settlements, and communities likely to be affected by the proposed project.
- Collecting baseline data on the current social and economic environment.
- Identifying the key potential social and economic issues associated with the proposed project. This requires a site visit to the area and consultation with affected individuals and communities. As part of the process a basic information document was prepared and made available to key interested and affected parties. The aim of the document was to inform the affected parties of the nature and activities associated with the construction and operation of the proposed development to enable them to better understand and comment on the potential social issues and impacts.
- Assessing and documenting the significance of social impacts associated with the proposed intervention.
- Identifying alternatives and mitigation measures.
- A site visit will be undertaken during the Assessment Phase of the SEIA. The site visit will include interviews with interested and affected parties.

- Preparation of a SEIA Report for inclusion in the Environmental Impact Assessment Report to be prepared for the project.

Collection and Review of Existing Information

Existing desktop information that has relevance to the proposed project, project area and/or surroundings was collected and reviewed. The following information was examined as part of this process:

- Project maps and layouts.
- Google Earth imagery.
- A description of the project (as provided by the project proponent).
- Responses to questions posed to the project proponent regarding employment and social upliftment and local economic development opportunities (as provided by the project proponent).
- Census Data (2022), and the Local Government Handbook (2019).
- Planning documentation such as Provincial Growth and Development Strategies (PGDSs), Local and District Municipality Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), and development goals and objectives.
- Relevant legislation, guidelines, policies, plans, and frameworks.
- Available literature pertaining to social and economic issues associated with the development and associated infrastructure.

The identification of potential socio-economic issues associated with the proposed development is based on primary and secondary information about the area and visits to the relevant communities and town by field workers/members of the SEIA study team. Section 7 contains a list of the secondary information reviewed and interviews conducted.

2.2.1. Definition of Socio-economic Impacts

Socio-economic impacts refer to the effects or consequences of a project, policy, or action on the social and economic aspects of a community or society. These impacts are typically assessed to understand the changes in people's lives, livelihoods, and overall well-being resulting from a specific intervention.

Socio-economic impacts encompass a wide range of factors, including but not limited to:

- **Social well-being:** Assessing the project's effects on the community's social fabric, including changes in living conditions, access to basic services, social cohesion, community relationships, and quality of life.
- **Employment and income:** Examining the project's influence on employment opportunities, job creation, income levels, and overall economic prosperity in the affected area.
- **Local businesses and economy:** Evaluating the impact on local businesses, supply chains, economic sectors, and the broader regional or national economy.
- **Housing and infrastructure:** Analysing the effects on housing availability, affordability, quality, and access to basic infrastructure like water, sanitation, transportation, and healthcare.
- **Social equity and vulnerability:** Identifying any differential impacts on different social groups, vulnerable populations, or marginalized communities, and assessing measures to promote social equity and inclusiveness.
- **Cultural heritage and identity:** Considering the project's implications for cultural heritage, traditions, identity, and the preservation of cultural assets within the affected community.
- **Public services and facilities:** Assessing the demands and requirements for public services and facilities resulting from the project, such as schools, hospitals, recreational spaces, and public transportation.
- **Environmental and natural resource impacts:** Evaluating the project's effects on natural resources, ecosystems, biodiversity, and ecological services, which can indirectly impact socio-economic aspects.

Overall, understanding socio-economic impacts is crucial for decision-makers, policymakers, and project planners to make informed choices, mitigate negative effects, and maximize positive outcomes for the affected communities and society as a whole.

A SEIA should thus enable authorities, project proponents, individuals, communities, and organizations to understand and anticipate the potential social and economic consequences of implementing a proposed policy, program, plan, or

project. The SEIA process should inform communities and individuals about the proposed project and its potential social and economic consequences, while also allowing them to assess the implications and identify potential alternatives. The assessment process should also alert proponents and planners to the likelihood and nature of socio-economic impacts, allowing them to anticipate and predict these impacts ahead of time, so that the assessment's findings and recommendations are incorporated into and inform the planning and decision-making process.

However, the issue of social impacts is complicated by the way in which different people from different cultural, ethnic, religious, gender, and educational backgrounds, etc. view the world. This is referred to as the “social construct of reality”. The social construct of reality informs people’s worldview and the way in which they react to changes.

2.2.2. Timing of Socio-economic Impact

The timing of socio-economic impacts refers to when these effects occur throughout the life cycle of a project or intervention. Socio-economic impacts can be classified into three main categories based on their timing:

- **Short-term impacts:** These are immediate or near-term effects that occur during the construction or implementation phase of a project. Short-term impacts may include temporary employment opportunities, changes in local business activity, disruption to existing infrastructure, and alterations in the local economy.
- **Medium-term impacts:** These effects occur during the operational phase of a project and can extend beyond its completion. Medium-term impacts typically unfold over several years and may include changes in employment patterns, income levels, local economy dynamics, access to services, and community well-being. They can arise from the ongoing operation, maintenance, and management of the project, as well as its interactions with the surrounding socio-economic environment.
- **Long-term impacts:** These are the enduring and sustainable effects that manifest over the long run, extending beyond the operational phase of a project. Long-term impacts can be observed in areas such as employment stability, economic diversification, improvements in education and skills, infrastructure development, changes in land use patterns, and overall socio-economic development. These impacts are often associated with the legacy of the project and its contribution to the long-term well-being and prosperity of the affected community.

It is important to consider and assess socio-economic impacts at different stages of the project, from the planning and design phase through implementation, operation, and post-project evaluation. This allows for a comprehensive understanding of the temporal dynamics and helps inform decision-making, policy development, and the implementation of appropriate mitigation and enhancement measures.

2.3. Assumptions and Limitations

2.3.1. Assumptions

The identification of the proposed site for the development of formal services for informal settlements project was informed by technical information related to the local conditions in the area, including factors such as land availability, topography, and infrastructure. Based on this information, it is assumed that the selected site meets the necessary requirements for the successful implementation of the Service delivery project, including considerations such as access to amenities, suitability for construction, and compatibility with the surrounding environment. The site's suitability ensures that it provides an ideal foundation for the realization of the project's objectives and the creation of a vibrant and sustainable residential community.

Legislation and policies reflect societal norms and values. The legislative and policy context therefore plays an important role in identifying and assessing the potential social impacts associated with a proposed development. In this regard a key component of the SEIA process is to assess the proposed development in terms of its fit with key planning and policy documents. As such, if the findings of the study indicate that the proposed development in its current format does not conform to the spatial principles and guidelines contained in the relevant legislation and planning documents, and there are no significant or unique opportunities created by the development, the development cannot be supported.

It is assumed that the motivation for as well as the planning and feasibility study of the project was undertaken with

integrity, and that information provided by the project proponent was accurate and true at the time of preparing this SEIA Report.

2.3.2. Limitations

This SEIA Report was prepared based on information that was available to the specialist at the time of preparing the report. The sources consulted are not exhaustive, and the possibility exists that additional information which might strengthen arguments, contradict information in this report, and/or identify additional information might exist. Additional information available from the public participation undertaken during the EIA process will be included and considered within the final report, where relevant.

The socio-economic data presented in this study is largely based on Census information and data and research conducted or contracted by other levels of government. The quality of this data is compromised by the limitations associated with the Census data collection process.

The census data is supported through additional data. The study draws primary data collected from towns/villages located in close proximity to the proposed project site. This additional information was collected through a survey of the communities within a 20km radius of the site. Limitation associated with this data include:

- A small sample size.
- Lack of qualitative data to support quantitative findings.
- Lack of feedback from digital surveys

2.4. Assessment Criteria

Direct, indirect, and cumulative impacts associated with the projects must be assessed in terms of the following criteria:

- The nature, which shall include a description of what causes the effect, what will be affected and how it will be affected.
- The extent, wherein it will be indicated whether the impact will be local (limited to the immediate area or site of development) or regional, and a value between 1 and 5 will be assigned as appropriate (with 1 being low and 5 being high):
- The duration, wherein it will be indicated whether:
 - the lifetime of the impact will be of a very short duration (0 – 1 years) – assigned a score of 1;
 - the lifetime of the impact will be of a short duration (2 – 5 years) – assigned a score of 2;
 - medium-term (5 – 15 years) – assigned a score of 3;
 - long term (> 15 years) – assigned a score of 4; or
 - permanent – assigned a score of 5;
- The magnitude, quantified on a scale from 0 – 10, where 0 is small and will have no effect on the environment, 2 is minor and will not result in an impact on processes, 4 is low and will cause a slight impact on processes, 6 is moderate and will result in processes continuing but in a modified way, 8 is high (processes are altered to the extent that they temporarily cease), and 10 is very high and results in complete destruction of patterns and permanent cessation of processes.
- The probability of occurrence, which shall describe the likelihood of the impact actually occurring. Probability will be estimated on a scale of 1 – 5, where 1 is very improbable (probably will not happen), 2 is improbable (some possibility, but low likelihood), 3 is probable (distinct possibility), 4 is highly probable (most likely) and 5 is definite (impact will occur regardless of any prevention measures).
- The significance, which shall be determined through a synthesis of the characteristics described above and can be assessed as low, medium or high; and
 - The status, which will be described as either positive, negative or neutral.
 - The degree to which the impact can be reversed.
 - The degree to which the impact may cause irreplaceable loss of resources.
 - The degree to which the impact can be mitigated.

The **significance** is calculated by combining the criteria in the following formula: $S=(E+D+M)P$

S = Significance weighting

E = Extent

D = Duration

M=Magnitude

P=Probability

The **significance weightings** for each potential impact are as follows:

< 30 points: Low (i.e., where this impact would not have a direct influence on the decision to develop in the area),

30 – 60 points: Medium (i.e., where the impact could influence the decision to develop in the area unless it is effectively mitigated),

> 60 points: High (i.e., where the impact must have an influence on the decision process to develop in the area).

The summarising of assessment impacts in a prescribed table format including the rating values as per above criteria. Measures for inclusion in the Environmental Management Programme.

3. POLICY AND PLANNING

The following key pieces of documentation were reviewed as part of this legislation and policy review process:

National Policy and Planning Context:

- Constitution of the Republic of South Africa, 1996
- National Environmental Management Act (No. 107 of 1998) (NEMA)
- National Development Plan (NDP) 2030 (2012)
- The Housing Code Upgrading of Informal Settlements Programme, 2009.
- The Housing Development Agency (HDA) Act, 23, 2008
- Department of Human Settlements, Baseline Evaluation of Informal Settlements Targeted for Upgrading in the 2019-2024 MTSF, 2021.

Provincial Policy and Planning Context:

- Northern Cape Planning and Development Act, 1998
- Northern Cape Land Administration Act, 2021
- Northern Cape Housing Act, 1998
- Northern Cape Municipal Systems Act, 2011
- Northern Cape Socio-Economic Review and Outlook, 2021
- Northern Cape Department Of Economic Development And Tourism Annual Report, 2022.

Local Policy and Planning Context:

- ZF Mgcawu District Profile and Analysis, 2021
- ZF Mgcawu District Municipality Integrated Development Plan (IDP) 2022
- Dawid Kruiper Local Municipality Integrated Waste Management Plan (IWMP), 2017
- Dawid Kruiper Local Municipality Integrated Development Plan (IDP), 2022
- Dawid Kruiper Local Municipality Land Use Management By-Law, 2018

3.1. National Planning and Policies

3.1.1. Constitution of South Africa

Section 24 of the Constitution pertains specifically to the environment. It states that everyone has the right to an environment that is not harmful to their health or well-being, and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The Constitution outlines the need to promote social and economic development. Section 24 of the Constitution therefore requires that development be conducted in such a manner that it does not infringe on an individual's environmental rights, health, or well-being. This is especially significant for previously disadvantaged individuals who are most at risk to environmental impacts.

3.1.2. National Environmental Management Act

South Africa's National Environmental Management Act (NEMA) applies to the formalization of services for informal settlements nationwide. NEMA requires environmental impact assessments, promotes environmental management planning, emphasizes sustainable development principles, and establishes a framework for environmental authorization and compliance. Compliance with NEMA ensures proper environmental assessment, management, and authorization in the formalization process.

3.1.3. National Development Plan

South Africa's National Development Plan (NDP) is applicable to the formalization of services for informal settlements throughout the country in the following ways:

Inclusive Growth and Development: The NDP emphasizes inclusive economic growth and development. Formalizing services for informal settlements aligns with this objective by ensuring that all citizens have access to basic amenities such as water, sanitation, electricity, healthcare, education, and transportation. By formalizing services, the government aims to improve the quality of life and opportunities for residents in informal settlements, promoting inclusivity and reducing inequalities.

Human Settlements and Spatial Planning: The NDP recognizes the need for integrated human settlements and spatial planning. It emphasizes the importance of upgrading informal settlements, improving infrastructure, and creating well-designed, sustainable, and inclusive urban environments. The formalization of services in informal settlements is an essential aspect of this goal, aiming to provide residents with safe and adequate infrastructure and services.

Social Cohesion and Empowerment: The NDP emphasizes building a socially cohesive society and empowering communities. Formalizing services in informal settlements supports social cohesion by addressing the needs of marginalized communities, reducing disparities, and promoting a sense of belonging and inclusion. It recognizes that access to basic services is crucial for the empowerment and upliftment of individuals and communities.

Local Government and Participatory Governance: The NDP highlights the importance of effective local government and participatory governance. Formalizing services in informal settlements involves collaboration between government institutions, local municipalities, community representatives, and stakeholders. It encourages participatory decision-making processes that involve residents in the planning, implementation, and monitoring of service provision initiatives.

The NDP provides a comprehensive vision and framework for the development of South Africa, including the formalization of services in informal settlements. Its goals, strategies, and principles guide government policies, programs, and interventions aimed at improving the lives of residents in informal settlements across the country.

3.1.4. The Housing Code Upgrading of Informal Settlements Programme, 2009.

The program provides a framework for upgrading and improving informal settlements, including the provision of essential services such as water, sanitation, electricity, and access roads. It outlines the principles, guidelines, and procedures for the planning and implementation of formalization initiatives. The program emphasizes community participation and engagement, ensuring that residents are actively involved in decision-making processes and their needs and aspirations are taken into account. By adhering to the Housing Code Upgrading of Informal Settlements Programme, local municipalities and relevant stakeholders can plan and execute service formalization projects in a systematic and sustainable manner. The program aims to enhance living conditions, promote social inclusion, and provide dignified housing and services for residents in informal settlements across the country. Therefore, it serves as a vital tool in ensuring the formalization of services for informal settlements, regardless of the specific location.

3.1.5. Department of Human Settlements, Baseline Evaluation of Informal Settlements Targeted for Upgrading in the 2019-2024 MTSF, 2021.

This evaluation is designed to assess the existing conditions and needs of informal settlements that are identified for upgrading initiatives.

The baseline evaluation process involves conducting a comprehensive survey of the targeted settlements, which includes gathering data on various aspects such as housing conditions, access to basic services, infrastructure deficiencies, social amenities, and environmental considerations. By conducting this evaluation, the Department aims to obtain a thorough understanding of the specific challenges and requirements of each informal settlement, allowing for tailored interventions and effective resource allocation.

The evaluation helps identify the specific service gaps and deficiencies within the informal settlements, highlighting areas where formalization of services is most urgently needed. It provides a baseline against which progress and improvements can be measured throughout the formalization process.

Based on the findings of the baseline evaluation, the Department can develop comprehensive upgrading plans and

strategies. These plans typically include provisions for the formalization of services, such as the installation of water supply systems, sanitation facilities, electricity connections, and road networks. The evaluation findings assist in determining the scale and scope of service provision required, ensuring that the interventions address the specific needs of each informal settlement.

Furthermore, the baseline evaluation provides valuable data for prioritizing resource allocation and funding decisions. It helps the Department identify high-priority settlements and allocate resources accordingly to ensure that the most critical service needs are met.

By leveraging the insights gained from the Baseline Evaluation of Informal Settlements Targeted for Upgrading, the Department of Human Settlements can effectively plan and implement the formalization of services in informal settlements across the country. This approach enables targeted and efficient interventions, leading to improved living conditions, enhanced social amenities, and increased access to basic services for residents in informal settlements, regardless of their specific location.

3.2. Provincial Planning and Policy

The study site is located in the Northern Cape Province. Relevant policy and planning documents on provincial level include:

3.2.1. Northern Cape Planning and Development Act, 1998

This legislation provides a comprehensive framework for planning and development in the Northern Cape. It outlines the procedures, guidelines, and regulations for land use planning, infrastructure development, and service provision.

When it comes to the formalization of services for informal settlements, the Northern Cape Planning and Development Act provides the legal basis for undertaking such initiatives. It enables local municipalities and relevant authorities to plan and implement projects aimed at improving the living conditions of residents in informal settlements. The Act ensures that service formalization aligns with the broader development objectives and land use plans of the province.

Specifically, the Act establishes the process for land-use zoning, which is essential for allocating suitable areas for the formalization of services in informal settlements. It defines the criteria and requirements for the provision of basic amenities, such as water, sanitation, electricity, and access roads.

Furthermore, the Act emphasizes the importance of public participation and consultation in the planning and development processes. This means that residents of informal settlements have the opportunity to contribute their inputs and concerns regarding service formalization projects that directly impact their communities. It promotes transparency, inclusivity, and accountability in decision-making processes.

Additionally, the Northern Cape Planning and Development Act may address issues related to environmental considerations and sustainable development. It ensures that service formalization projects in informal settlements adhere to environmental standards, minimize negative impacts, and promote long-term sustainability.

Overall, the Northern Cape Planning and Development Act, 1998 serves as a crucial regulatory framework for guiding and facilitating the formalization of services in informal settlements within the province. It ensures that the process is conducted in a systematic, inclusive, and sustainable manner, in line with the development goals and land use plans of the Northern Cape.

3.2.2. Northern Cape Land Administration Act, 2021

This legislation provides a legal framework for land administration, including the management, registration, and tenure of land within the Northern Cape.

In the context of formalizing services for informal settlements, the Land Administration Act plays a significant role in clarifying and securing land rights. It establishes mechanisms for the recognition and regularization of informal land

occupation, providing a pathway for residents in informal settlements to gain legal recognition and tenure security.

The Act enables the identification and demarcation of land suitable for the formalization of services in informal settlements. It provides guidelines and processes for the allocation and transfer of land rights, ensuring that the necessary legal mechanisms are in place to facilitate service provision in these settlements.

Moreover, the Land Administration Act promotes transparency and efficiency in land administration processes. It sets out the requirements and procedures for the registration of land rights and the issuance of title deeds. This can contribute to the formalization of services by providing a clear legal framework for property ownership and facilitating access to finance and infrastructure development.

Additionally, the Act may address matters related to land use planning and zoning. It ensures that service formalization initiatives in informal settlements are aligned with the land use plans and regulations of the province. This helps to optimize the allocation of land for infrastructure development and service provision.

By providing a legal framework for land administration and tenure regularization, the Northern Cape Land Administration Act, 2021 contributes to the formalization of services for informal settlements in the province. It establishes clear procedures for recognizing and securing land rights, facilitating infrastructure development, and promoting tenure security for residents in informal settlements.

3.2.3. Northern Cape Municipal Systems Act, 2011

The Northern Cape Municipal Systems Act of 2011 serves as a comprehensive blueprint for effective municipal governance and administration, outlining the roles, powers, and obligations of municipalities within the province. Specifically, concerning the formalization of services for informal settlements, this legislation establishes a solid legal foundation for local municipalities to embark on such initiatives. By empowering municipalities with the authority and capabilities to plan, deliver, and oversee essential services like water, sanitation, electricity, and access roads, the Act ensures that these municipalities can proactively address the living conditions of informal settlement residents.

A core emphasis of the Act is the significance of community participation and engagement throughout the entire lifecycle of service formalization projects. Municipalities are obligated to actively involve affected communities during the planning, execution, and monitoring stages of such projects. This inclusive approach guarantees that the needs and aspirations of residents are genuinely considered, fostering a sense of ownership, inclusive decision-making, and ultimately, enhancing the sustainability and efficacy of the initiatives.

Moreover, the Municipal Systems Act sets forth provisions pertaining to financial management and accountability. By imposing responsible financial practices, municipalities are mandated to allocate and manage resources efficiently, ensuring transparent and judicious distribution of funds for service formalization projects. This commitment to financial prudence supports the effective implementation and long-term viability of service provision in informal settlements.

Another crucial aspect of the Act is its promotion of the integration of informal settlements into broader municipal planning and development processes. Municipalities are required to take into account the specific needs and requirements of informal settlements when devising their integrated development plans and spatial development frameworks. This deliberate consideration ensures that service formalization efforts align harmoniously with the overall development goals and strategies of the municipality, fostering a cohesive and inclusive urban environment.

In summary, the Northern Cape Municipal Systems Act of 2011 is an indispensable legislative framework that empowers municipalities to undertake and facilitate the formalization of services in informal settlements. By granting municipalities the necessary legal authority, community engagement mechanisms, and financial management guidelines, the Act enables municipalities to plan, execute, and sustain service provision initiatives effectively, thereby enhancing the lives of residents in informal settlements throughout the province.

3.3. District Level Planning and Policies

3.3.1. ZF Mgcawu District Profile and Analysis, 2021

This report provides a comprehensive understanding of the district's demographics, socio-economic conditions, infrastructure, and service delivery challenges.

By analyzing the profile of the district, including the population, housing conditions, and access to basic services, the report highlights the specific needs and deficiencies in informal settlements. It identifies areas requiring urgent attention and informs the formulation of strategies for service formalization initiatives.

The analysis conducted in the report enables the municipality to assess the existing service gaps and prioritize resource allocation for informal settlement upgrades. It provides valuable insights into the areas where service formalization is most critical, such as water supply, sanitation, electricity, and road infrastructure.

Furthermore, the report's findings contribute to evidence-based decision-making and planning. It assists the municipality in developing targeted interventions and tailor-made approaches for service formalization projects. The analysis helps identify the most effective strategies, technologies, and infrastructure designs to address the unique challenges of informal settlements within the district.

Moreover, the Profile and Analysis report serves as a benchmark against which progress can be measured. By establishing a baseline of the district's conditions and service deficiencies, the report allows for monitoring and evaluation of the impact of service formalization initiatives over time. It helps track improvements and identify areas that require further attention or adjustments in the implementation strategies.

Overall, the ZF Mgcawu District municipality's Profile and Analysis report is an invaluable tool in the formalization of services for informal settlements. It provides essential insights into the specific needs, challenges, and opportunities within the district, guiding decision-making processes, resource allocation, and monitoring of service formalization projects. The report's analysis ensures that interventions are targeted, efficient, and responsive to the unique circumstances of informal settlements, ultimately improving the living conditions and well-being of the residents in the province.

3.3.2. ZF Mgcawu District Municipality Integrated Development Plan (IDP) 2022

The IDP serves as a strategic blueprint for the development and service provision within the district.

In the context of formalizing services for informal settlements, the IDP plays a crucial role in guiding the municipality's actions and priorities. It incorporates the specific needs and aspirations of informal settlements into the broader development agenda of the district. By considering the challenges faced by these settlements and their residents, the IDP ensures that service formalization receives adequate attention and resources.

The IDP enables the municipality to identify and prioritize service formalization projects based on the needs assessment conducted within the informal settlements. It provides a platform to engage with the affected communities, allowing them to actively participate in the decision-making process and contribute to the planning and implementation of service formalization initiatives.

Moreover, the IDP ensures the integration of service formalization efforts with other development sectors and programs within the district. It promotes a coordinated and holistic approach to address the various challenges faced by informal settlements, including housing, infrastructure, and access to basic services. By aligning service formalization with other development priorities, the IDP enhances the overall impact and sustainability of the initiatives.

Furthermore, the IDP facilitates resource allocation and budgeting for service formalization projects. It enables the municipality to plan and secure the necessary funding to implement infrastructure upgrades, service provision, and capacity building initiatives within informal settlements. The IDP also assists in leveraging additional resources and partnerships from external stakeholders, including government agencies, non-profit organizations, and the private

sector.

In summary, the ZF Mgcawu District Municipality Integrated Development Plan (IDP) is instrumental in driving the formalization of services for informal settlements within the province. It ensures that the unique needs and challenges of these settlements are considered and prioritized in the district's overall development agenda. The IDP facilitates community engagement, resource allocation, and integration with other development sectors, contributing to effective and sustainable service formalization initiatives that enhance the living conditions and well-being of informal settlement residents.

3.3.3. Dawid Kruiper Local Municipality Integrated Waste Management Plan (IWMP), 2017

the IWMP recognizes the municipality's responsibility to ensure a healthy environment and sustainable development within its jurisdiction, in line with the provisions of the Constitution of the Republic of South Africa. This includes curbing poor waste management practices, which often affect informal settlements disproportionately.

The IWMP emphasizes the provision of waste management services, including waste removal, storage, and disposal, as per the requirements outlined in the National Environmental Management: Waste Act. These services are crucial for the formalization of service provision in informal settlements, as they contribute to improved sanitation, hygiene, and overall living conditions. By addressing waste management issues, the IWMP directly impacts the well-being and health of residents in informal settlements.

Furthermore, the IWMP highlights the need for waste awareness and education among communities living adjacent to or utilizing landfill sites. This education can be extended to informal settlements, raising awareness about proper waste disposal practices and promoting behavior change. By integrating waste education initiatives into the formalization process, the IWMP can contribute to improved waste management practices within informal settlements.

The IWMP also emphasizes the importance of enforcement of bylaws, including those related to waste disposal, throughout the municipal area. This enforcement can help address illegal dumping and ensure that waste generated in informal settlements is managed in a responsible and sustainable manner. By creating a cleaner and healthier environment, the IWMP supports the formalization of services in informal settlements by enhancing the overall quality of life for residents.

The plan recognizes the municipality's responsibility to provide waste management services, promote waste awareness, and enforce bylaws. By addressing waste management challenges in informal settlements, the IWMP contributes to improving living conditions, promoting hygiene, and ensuring a sustainable environment for residents.

3.3.4. Dawid Kruiper Local Municipality Integrated Development Plan (IDP), 2022

Based on the information provided, the IDP focuses on several key priority areas, including spatial development, human settlements and housing, service delivery and infrastructure development, sanitation and waste management, economic growth and job creation, community development and facilities, and administrative and institutional capacity.

To address the formalization of services for informal settlements, the following elements in the IDP address the need for formal housing in the municipality:

Spatial Development and Town Planning: Develop strategies and plans to address the spatial layout and planning of informal settlements, with a focus on improving infrastructure, access to basic services, and housing conditions.

Human Settlements and Housing: Prioritize the eradication of housing backlogs and the provision of sustainable human settlements. This could involve upgrading informal settlements, providing affordable housing options, and implementing housing programs targeting the informal sector.

Service Delivery and Infrastructure Development: Improve the provision of basic services, such as water, sanitation, electricity, and waste management, to informal settlements. This may include extending service networks, implementing innovative solutions for service delivery, and ensuring equitable access for informal settlement residents.

Community Development and Facilities: Enhance community development initiatives in informal settlements, including the provision of public amenities, recreational facilities, and social services. Promote the involvement of informal settlement residents in decision-making processes and encourage their active participation in community development programs.

Administrative and Institutional Capacity: Strengthen institutional arrangements to support the formalization of services for informal settlements. This could involve improving financial management, establishing effective governance practices, and enhancing stakeholder engagement and customer service.

These key areas align with broader objectives related to service delivery, infrastructure development, and community development within the IDP. It is essential for the municipality to assess the specific needs and challenges of informal settlements and develop targeted strategies to formalize services and improve the living conditions of informal settlement residents.

3.3.5. Dawid Kruiper Local Municipality Land Use Management By-Law, 2018

The by-law provides a regulatory framework for land use management and control, which can indirectly contribute to the formalization of services for informal settlements.

Land Use Planning: The by-law establishes regulations and procedures for land use change applications, which can be utilized to formalize land use in informal settlements. Through proper planning and zoning, the municipality can allocate areas for informal settlement upgrading, ensuring the provision of necessary services.

Development Control: The by-law includes regulations for development control, specifying standards and requirements for infrastructure provision, including water, sanitation, electricity, and waste management. These regulations can guide the formalization process by setting standards for service provision in informal settlements.

Compliance and Enforcement: The by-law designates the Council of the Dawid Kruiper Municipality as the Competent Authority responsible for enforcing the Scheme Regulations. This authority can enforce compliance with the formalization requirements, ensuring that informal settlements adhere to the established standards and regulations.

Integration with Other Policies: The by-law emphasizes the need to consider all relevant acts, by-laws, and policies governing land use change applications. This integration ensures that the formalization of services for informal settlements aligns with broader municipal policies and objectives, facilitating coordinated efforts.

The regulatory framework provided by the Land Use Management By-Law can be utilized to support and guide the formalization process. It establishes procedures, standards, and enforcement mechanisms that can contribute to improving the living conditions in informal settlements through the provision of formalized services.

3.4. Conclusion

In conclusion, the policy and planning chapter of this socio-economic report has shed light on the crucial role of effective policies and comprehensive planning in promoting sustainable development and addressing socio-economic challenges. Through an analysis of the existing policy framework and planning initiatives, key findings and recommendations have been identified to guide future decision-making processes.

The findings indicate that while progress has been made in certain areas, there are still areas of improvement that need to be addressed. The implementation of sound policies and robust planning strategies is essential for fostering inclusive growth, reducing inequality, and enhancing overall societal well-being.

One of the key recommendations is the need for an integrated approach to policy formulation and planning. This involves aligning economic, social, and environmental goals to ensure a holistic and balanced development. Additionally, the report highlights the importance of stakeholder engagement and participatory processes in policy development and planning, ensuring that the voices and needs of all segments of society are considered.

Furthermore, the report emphasizes the significance of evidence-based decision-making. Robust data collection, analysis, and monitoring mechanisms are crucial for informed policy choices and effective implementation. The incorporation of technological advancements, such as data analytics and modelling tools, can enhance the accuracy and efficiency of policy formulation and planning processes.

4. OVERVIEW OF THE STUDY AREA

4.1. Overview of Study Area

The proposed project is located immediately north of Upington, in the Dawid Kruiper Local Municipality (DKLM) (previously known as Khara Hais and Mier LMs). The DKLM falls within the ZF Mgcawu District Municipality (previously known as Siyanda District Municipality) in the Northern Cape Province of South Africa. The study area is bounded by the N10, to the north-west and the R360 directly to the north-east of the site. The Upington International Airport is located directly east of the site. The study area is adjacent to an existing industrial area.

The study area is within a previous SEZ site where illegal structures are (Erf 23228 , Upington) and an allotment area within ward 8 of DKLM (Figure 4.1). For the purposes of this study and the impact assessment, engagement was extended to ward 6, 7, 9, 13 and 14 as they are surrounding the project area.

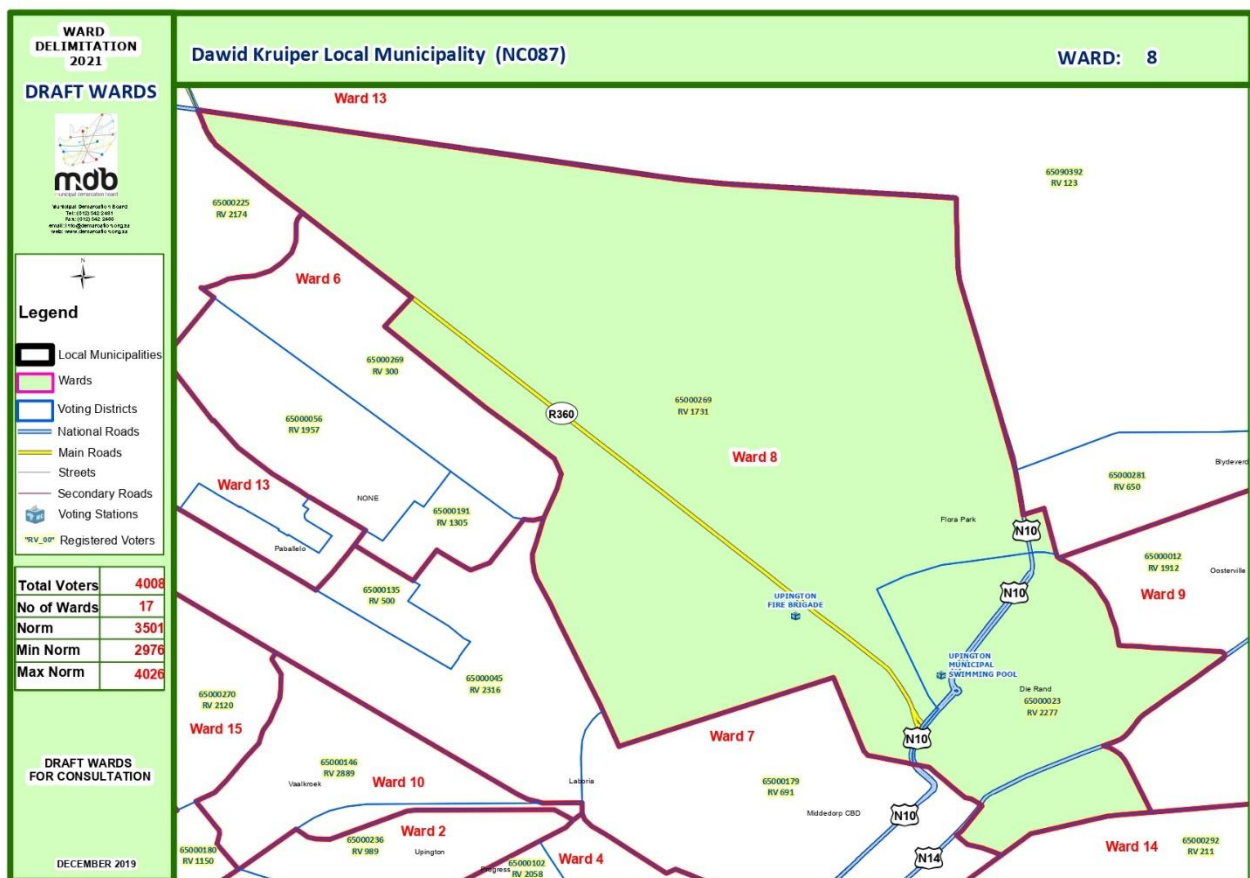


Figure 4.1: Location of Ward86 within Dawid Kruiper Local Municipality

The topography can be described as “dune hills and lowlands”. The surrounding land use as “Urban / built-up land: industrial / transport & residential”. The area falls within the Nama Karoo biome, with the vegetation type been Orange River Broken Veld. Due to the large number of anthropogenic activities in the study area (industrial and residential), natural ground cover is mostly to make way for industrial processes, residential infrastructure and businesses.

Two communities are based within the study area and are situated on the eastern and southern/south-eastern footprint. A large portion of the southern and south-eastern study portions are zoned and used as industrial land. The most important roads are the N10 and the R360 (also referred to as Swartmodder Street) roads. The N102 route is a single lane alternative paved route. Traffic on this route is classified as moderately busy (Annual Average Daily Traffic or AADT is moderate). The route is relatively well maintained (relevant for road tyre interaction above 60 km/h) with the visual condition index (vci) rated as a “fair” or “good”. Traffic signs indicated speeds of 80 km/h on the section of road adjacent to the project keeping it lower than freeway speeds³. The R360 (Swartmodder Street) road consists of single lane alternative directions for traffic. An airport (Upington National Airport) is based outside the study area

Sensitive Receptors Residential areas and potential developments/receptors/communities were identified using tools such as Google Earth® with the areas up to a distance of up to 5km from development footprint.

The development forms part of the Upington Special Economic Zone (SEZ).

Its establishment has been driven by the projected demand for renewable solar energy in South Africa, as outlined in the Integrated Resource Plan (IRP 2010) of the South African Government. Spearheaded by the Northern Cape Economic Development, Trade and Investment Promotion Agency (NCEDA), the SEZ aims to capitalize on this anticipated growth.

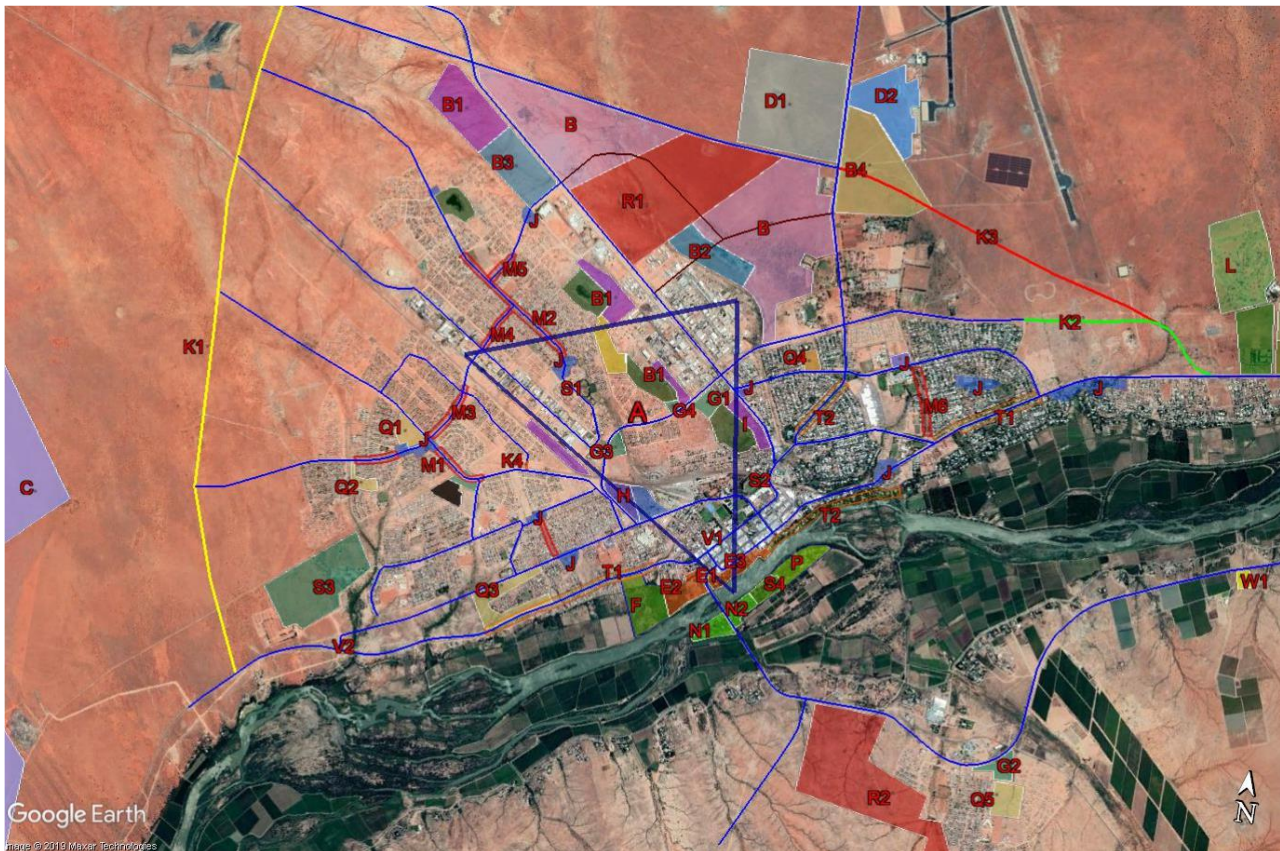


Figure 4.2: Dawid Kruiper Local Municipality Special Economic Zones (SEZ)

As outlined in the IDP, there is an urgent demand for housing, particularly affordable housing options, and serviced plots across all communities in the area. Unfortunately, the current rate of housing construction on individual erven cannot keep pace with the communities' housing needs.

Through the formalization of services for informal settlements, this project seeks to address these challenges comprehensively. It aims to provide basic services such as water, sanitation, electricity, and waste management to informal settlements, ensuring that residents have access to essential amenities and improved living conditions.

By incorporating the principles of formalization, the project will contribute to the regularization of informal settlements, granting residents legal recognition and access to essential services. This process will empower the community and promote inclusive urban development, fostering a sense of ownership and belonging.

The formalization of service for informal settlements is a critical step in bridging the gap between formal and informal urban areas, promoting social cohesion and equitable development. By implementing this project, the municipality demonstrates its commitment to meeting the needs of vulnerable populations and advancing sustainable and inclusive urbanization.

Overall, the formalization of services for informal settlements project holds significant potential for positive socio-economic impact, ensuring that marginalized communities receive the necessary support and resources they require

for improved living conditions and a better quality of life.

4.2. Community Engagement

The project for the formalization of services for informal settlements encompasses various infrastructure components, including water transportation, electricity supply, and water and sewer systems. It is important to note that these infrastructure elements may traverse different communities, potentially even crossing communal arable areas and gravesites.

When the pipeline routes or infrastructure placement intersect with gravesites or private properties within the communities, it is imperative to engage in thorough consultation processes before commencing any construction activities. This consultation ensures that the concerns and sensitivities of the affected individuals and communities are acknowledged and addressed.

In instances where grave sites or private properties may be impacted, it may be necessary to consider alternative routes or adjust the placement of infrastructure to avoid any adverse effects on these areas. This approach emphasizes the importance of respecting cultural and personal values, while still providing the necessary infrastructure to support the formalization of services for informal settlements.

By actively involving the affected communities and stakeholders in the decision-making process, the project demonstrates a commitment to inclusive and participatory development. This approach ensures that potential concerns are considered, alternative solutions are explored, and the infrastructure is implemented in a manner that respects the cultural and historical significance of the areas affected.

Through careful consultation and flexible planning, the formalization of services for informal settlements can proceed in a manner that minimizes negative impacts on gravesites, communal arable areas, and private properties. This approach reflects a comprehensive understanding of the importance of balancing the need for infrastructure development with the preservation of cultural heritage and individual rights.

Ultimately, by incorporating proper consultation processes and considering alternative routes or infrastructure placement, the project aims to ensure that the formalization of services for informal settlements is carried out in a manner that respects the communities' cultural and historical contexts and upholds their rights and values.

4.2.1. Desktop Studies and Literature review

Various data sources were used to obtain information on the social and economic characteristics of the study area. Such data included maps, StatsSA Census 2016/2022 data, internet searches, municipal documents (e.g. IDPs), etc. Where necessary, reference to the various sources is provided in the report.

To analyze the data gathered from community and one-on-one interviews/consultations, fieldwork, and municipal discussions, a qualitative approach was adopted. Relying on participant observation and field notes, primary data is frequently unstructured and is utilized primarily in the social sciences to construct social trends and identify socio-economic patterns.

Stakeholders were identified during the Scoping phase of the EIA process, especially at local and district level (Refer to **Appendix A for the Stakeholder database**). Consultation and fieldwork were conducted in order to gather data regarding the socio-economic conditions and potential issues and impacts of the proposed development. Questionnaires with open-ended questions were used to guide the interactions. The questions were primarily structured to obtain basic socio-economic information on the study and surrounding areas, particularly data which could not be obtained from StatsSA (e.g. social amenities, living conditions and livelihoods, etc.). The questions were also aimed at eliciting and identifying possible positive or negative project impacts. **The questionnaires are attached in Appendix B.**

4.2.2. Survey Highlights

All the respondents thus far are for the development. Below is a graphical representation of the top 5 questions results. The completed surveys and additional details have been attached in Appendices A & B.

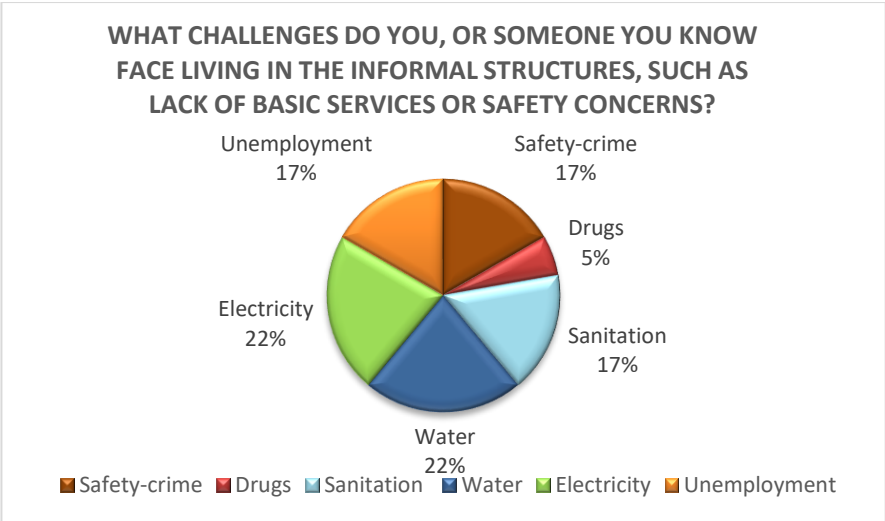


Figure 4.3: Question 1 Graphical Representation

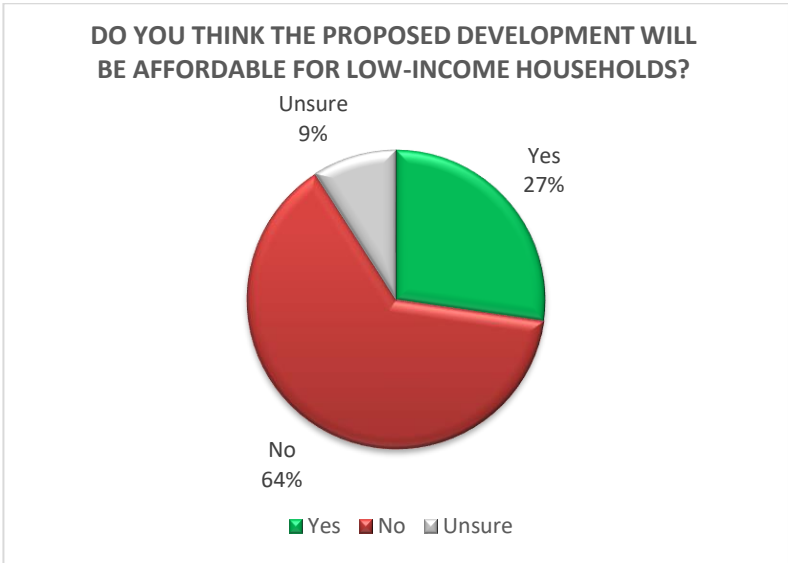


Figure 4.4: Question 2 Graphical Representation

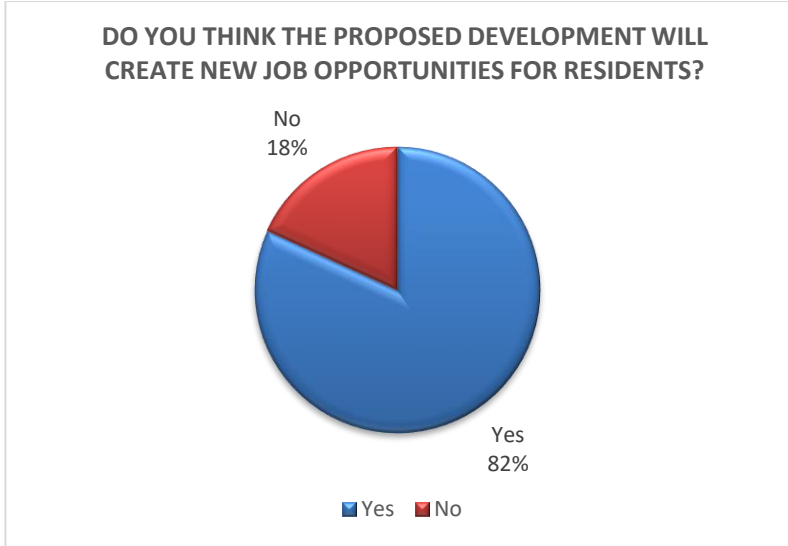


Figure 4.5: Question 3 Graphical Representation

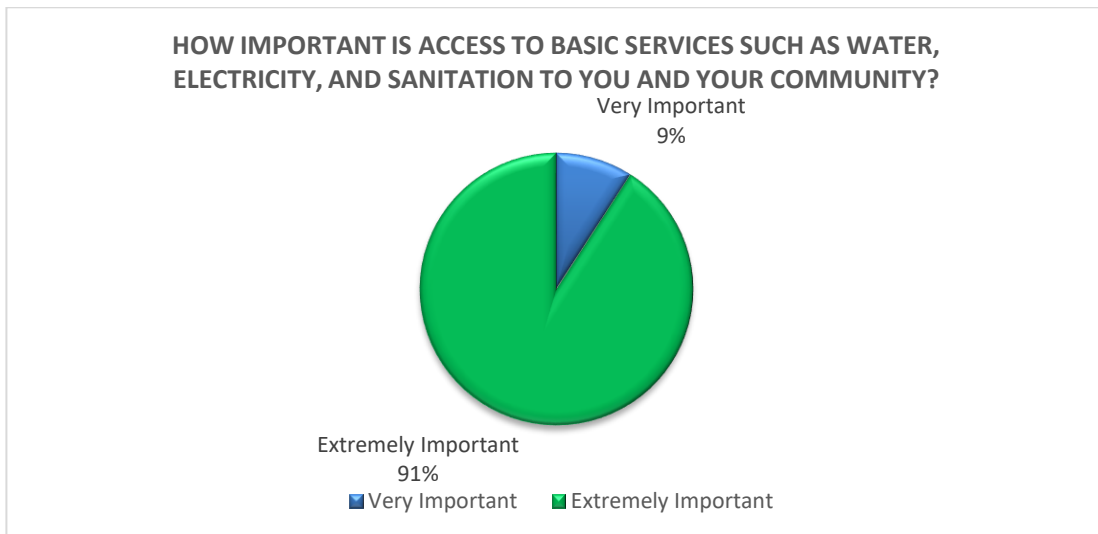


Figure 4.6: Question 4 Graphical Representation

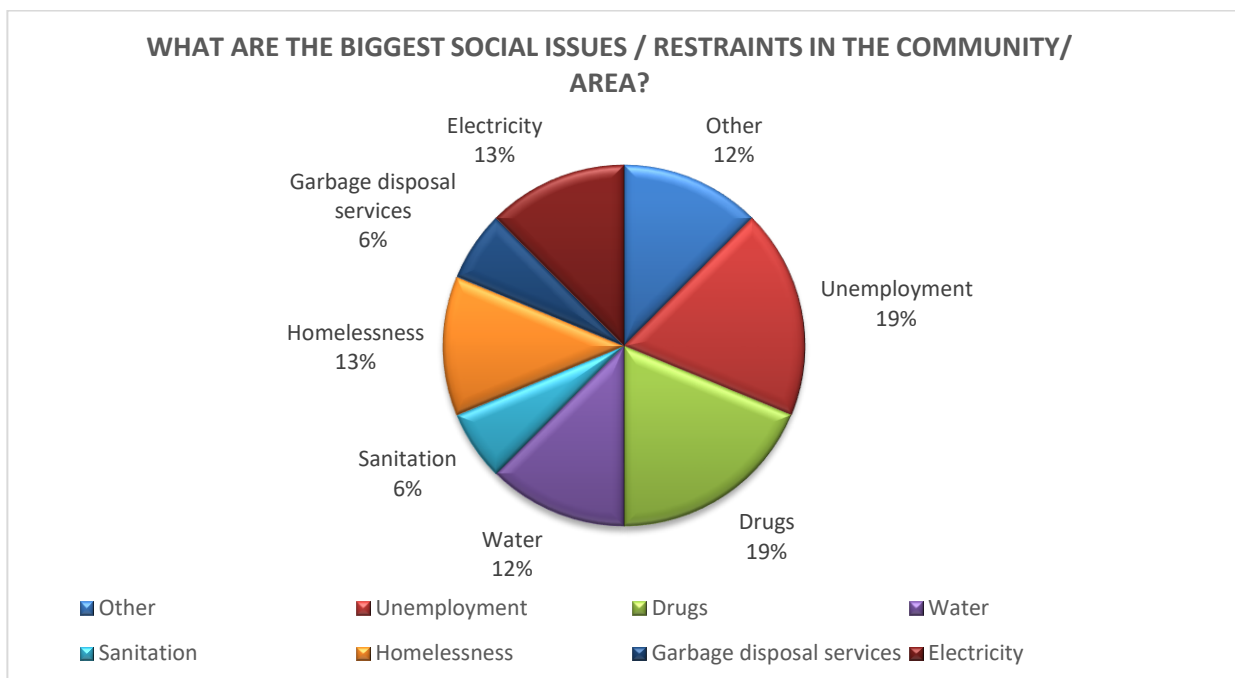


Figure 4.7: Question 5 Graphical Representation

4.2.3. Stakeholder Engagement for the Formalisation of Service for Informal Settlements Project

In accordance with the requirement to engage all Interested and Affected Parties (I&APs), EnviroAfrica CC was appointed by the Applicant to facilitate a comprehensive public participation process as part of the Environmental Impact Assessment (EIA). During this phase, a Draft Report will be made available to I&APs for a 30-day review and comment period. The feedback received from I&APs during this process will be addressed and incorporated into the final version of the Socio-Economic Impact Assessment (SIA), which will be submitted to the relevant authorities.

The stakeholder engagement process included the following key activities:

- Publication of advertisements in local newspapers to inform the public about the proposed project, the EIA process, and the opportunity to provide feedback.
- Placement of on-site notices at strategic locations, both within the project site and in the vicinity, such as along roads and intersections. These notices provided information on the proposed developments and invited residents and potential I&APs to register and submit comments.
- Distribution of a background information letter, along with a comment and registration sheet, to I&APs via email and ordinary mail. This allowed stakeholders to access relevant project details and provide their input.
- Conducting telephone conversations with I&APs who required additional information or clarification regarding the project or the EIA process.

- All comments, suggestions, and concerns received from the various I&APs during the stakeholder engagement process will be diligently documented in a Comment and Response Register. This register will be included as part of the final SIA report submitted to the relevant authorities, ensuring transparency and accountability in addressing stakeholder input.

By actively involving I&APs and considering their perspectives, the stakeholder engagement process enhances the socio-economic impact assessment by incorporating diverse viewpoints and promoting inclusivity in decision-making for the formalisation of service for informal settlements project.

4.2.4. Conclusion of Community Engagement

In addition to the survey results from the local residents, a comprehensive stakeholder engagement process was carried out by EnviroAfrica CC to ensure all Interested and Affected Parties (I&APs) were actively involved in the Environmental Impact Assessment (EIA) process.

During this engagement process, a Draft Report was made available for a 30-day review and comment period. The stakeholders were given opportunities to submit their feedback, which will be addressed and incorporated into the final Socio-Economic Impact Assessment (SIA) that will be submitted to the relevant authorities.

This proactive engagement involved multiple modes of communication, such as local newspaper advertisements, on-site notices, distribution of background information letters, and direct telephone conversations to provide all pertinent details and collect valuable feedback. All comments, suggestions, and concerns from the stakeholders have been meticulously documented in a Comment and Response Register, enhancing transparency and accountability.

Given these extensive efforts to engage all key stakeholders:

- **Challenges of Living in Informal Structures:** The survey showed that water and electricity supply (36.4% of the total responses each), sanitation and safety-crime (27.3% each), and unemployment (27.3%) were the main challenges faced by the residents living in the informal structures.
- **Affordability of the Proposed Development:** When it comes to the affordability of the proposed development for low-income households, 63.6% of respondents indicated their doubts, while 27.3% believed it would be affordable, and 9.1% were unsure.
- **Job Opportunities:** A large majority (81.8%) of the respondents believe that the proposed development will create new job opportunities, while 18.2% of respondents disagreed.
- **Importance of Basic Services:** All respondents expressed that access to basic services such as water, electricity, and sanitation was extremely important (90.9%) or very important (9.1%).
- **Major Social Issues in the Community:** Unemployment and drug issues were each highlighted by 27.3% of respondents, while issues related to water, sanitation, homelessness, garbage disposal services, and electricity each received 18.2% mentions.
- **Support for the Development:** Notably, 100% of respondents indicated they were in favour of the proposed development.

The stakeholder engagement process underscores the project's commitment to inclusivity, transparency, and accountability. By incorporating the diverse viewpoints and suggestions of the I&APs, the final Socio-Economic Impact Assessment (SIA) will present a comprehensive analysis of the potential socio-economic impacts, both positive and negative, of the proposed development. This will ensure that all relevant factors are considered in the decision-making process for the formalisation of service for informal settlements project, thereby maximizing its potential benefits and minimizing any adverse impacts.

4.3. Administrative Context of Study Area

The development study area is situated north of Upington within DKLM in the ZF Mgcawu DM, Northern Cape Province. The development comprises provision of bulk and internal services (electricity, water, sewer and road/street infrastructure) within the SEZ.

Upington, located in the Northern Cape province of South Africa, falls under the jurisdiction of the Dawid Kruiper Local

Municipality. The municipality is responsible for the effective administration and delivery of essential services to the local communities.

The administrative context is shaped by various factors, including the legal framework, institutional arrangements, and the role of key stakeholders. The municipality operates within the framework of national and provincial legislation, particularly the Municipal Systems Act and the Municipal Structures Act, which define its functions, powers, and responsibilities.

The governance structure of the municipality consists of a council, which is the highest decision-making body, and a municipal manager, who oversees the day-to-day operations. The council comprises elected representatives who are responsible for making policy decisions and ensuring the effective implementation of programs and projects. The administrative staff, under the leadership of the municipal manager, supports the council in executing its mandate.

In terms of service delivery, the municipality strives to meet the needs of its residents by providing essential services such as water supply, sanitation, electricity, waste management, and housing. These services are crucial for improving the quality of life and promoting socio-economic development in the Upington area. The municipality also plays a role in land use management and spatial planning to ensure orderly and sustainable development within its jurisdiction.

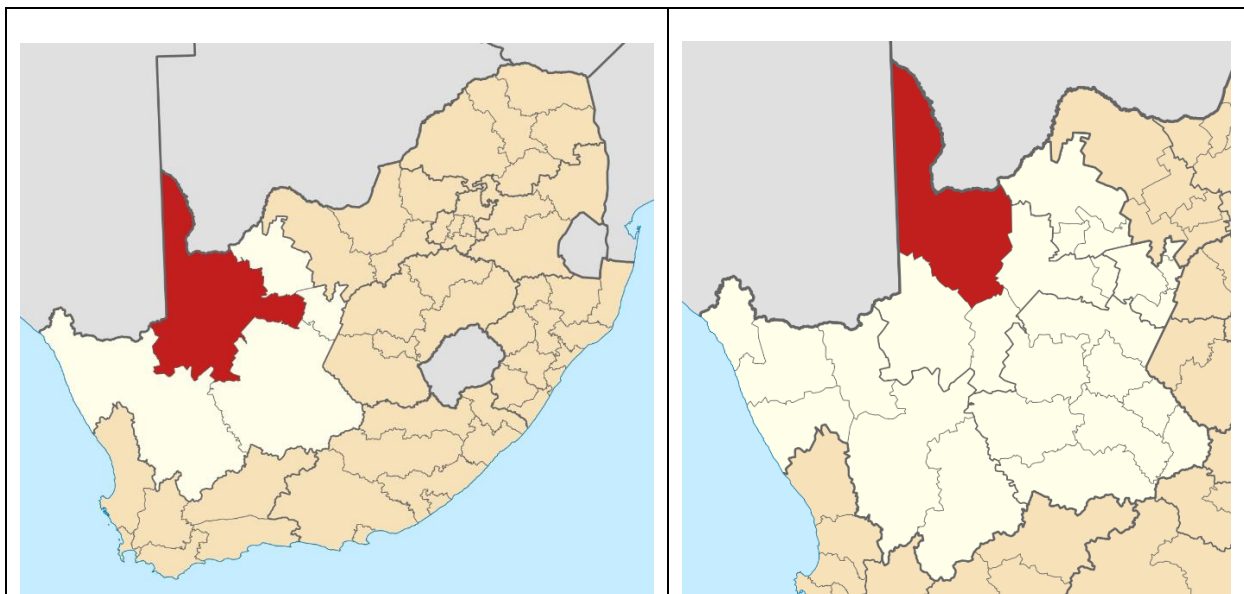


Figure 4.8: Location of ZF Mgcawu District Municipality (left) and Dawid Kruiper Local Municipality (right) within the Northern Cape Province

Table 4.1: Spatial Context of the study area for the development of the Upington Site 1 Service Provision

Province	Northern Cape Province
District Municipality	ZF Mgcawu District Municipality comprises
Local Municipality	Dawid Kruiper Local Municipality
Ward number(s)	8
Nearest town(s)	Upington
Current Zoning	Residential
Current land use	Informal housing
Access	The site can be readily accessed via an existing access road

4.4. Provincial Socio-Economic Context

The Northern Cape Province which covers an area of 372 889 km² and has a population of close to 1.3 million, the least populous of South Africa's provinces. The vast and arid Northern Cape is the largest province in South Africa, taking up nearly a third of the country's land area. It is bordered by Namibia and Botswana to the north, and also by the North West, Free State, Eastern Cape and Western Cape provinces. The cold Atlantic Ocean forms the province's western boundary.

The capital city is Kimberley. Other important towns are Upington, centre of the karakul sheep and dried-fruit industries, and the most northerly winemaking region of South Africa; Springbok, in the heart of the Namaqualand spring-flower country; Kuruman and De Aar, the second most important junction of South Africa's railway network. Sutherland is host to the southern hemisphere's largest astronomical observatory, the multinational sponsored Southern African Large Telescope.

The Northern Cape is rich in minerals. Alluvial diamonds are extracted from the beaches and the sea between Alexander Bay and Port Nolloth. The Sishen Mine near Kathu is the biggest source of iron ore in South Africa, while the copper mine at Okiep is one of the oldest mines in the country. Copper is also mined at Springbok and Aggeneys. The province is rich in asbestos, manganese, fluorspar, semi-precious stones and marble.

The province has fertile agricultural land in the Orange River Valley, especially at Upington, Kakamas and Keimoes, where grapes and fruit are cultivated intensively. The interior Karoo relies on sheep farming, while the karakul-pelt industry is one of the most important in the Gordonia district of Upington. Wheat, fruit, peanuts, maize and cotton are produced at the Vaalharts Irrigation Scheme near Warrenton.

The Northern Cape is divided into five district municipalities and further subdivided into 26 local municipalities.

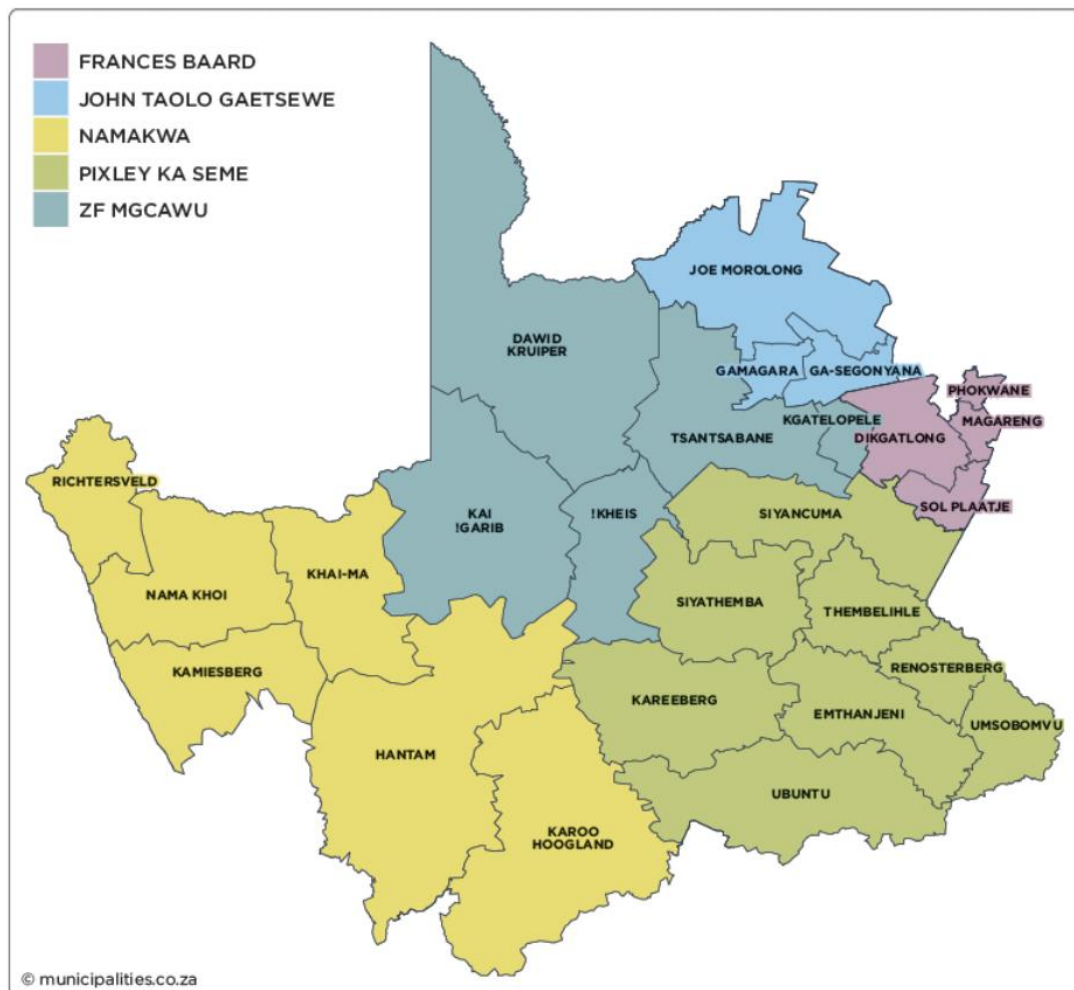


Figure 4.9: Map showing the districts of the Northern Cape Province (Source: www.municipalities.co.za).

4.4.1. Population

Gauteng remains the largest in terms of the population size in South Africa. In 2020, the province's population increased to 15.488 million which represented about 26 per cent of the national population. KwaZulu-Natal had the second largest population, followed by Western Cape and Eastern Cape. Northern Cape remains the province with the smallest population size, estimated at 1.293 million (2 per cent of the country's population). Eight provinces experienced an increase in their population sizes between 2019 and 2020, with Gauteng having the largest (312 022) while Eastern

Cape had the smallest (21 725). Limpopo was the only province which had a decrease in its population size.

It is also important to know how the province's population is spread between its districts. Table 3 shows the population of each district in 2019 as well as its percentage of the province's population.

Table 4.2: Population Structure of the District municipality

	Number	Share (%)
Namakwa	139 381	10.4
Pixley ka Seme	220 842	16.4
ZF Mgcawu	284 391	21.1
Frances Baard	438 901	32.6
John Taolo Gaetsewe	261 363	19.4

Frances Baard district had the largest population size of the five districts in the province. In 2019, the district represented 32.6 per cent of the total population provincially. ZF Mgcawu district followed at 21.1 per cent. The district with the smallest population size is Namakwa accounting for only 10.4 per cent.

The province had more females than males in 2019, which was the same for the country. Regarding the population groups, the Black African group represented the largest share of the country's population, whereas Indians/Asians were the smallest. This was the same for the Northern Cape. The population characteristics of the province as well as the district municipalities are visually represented by the pyramids below.

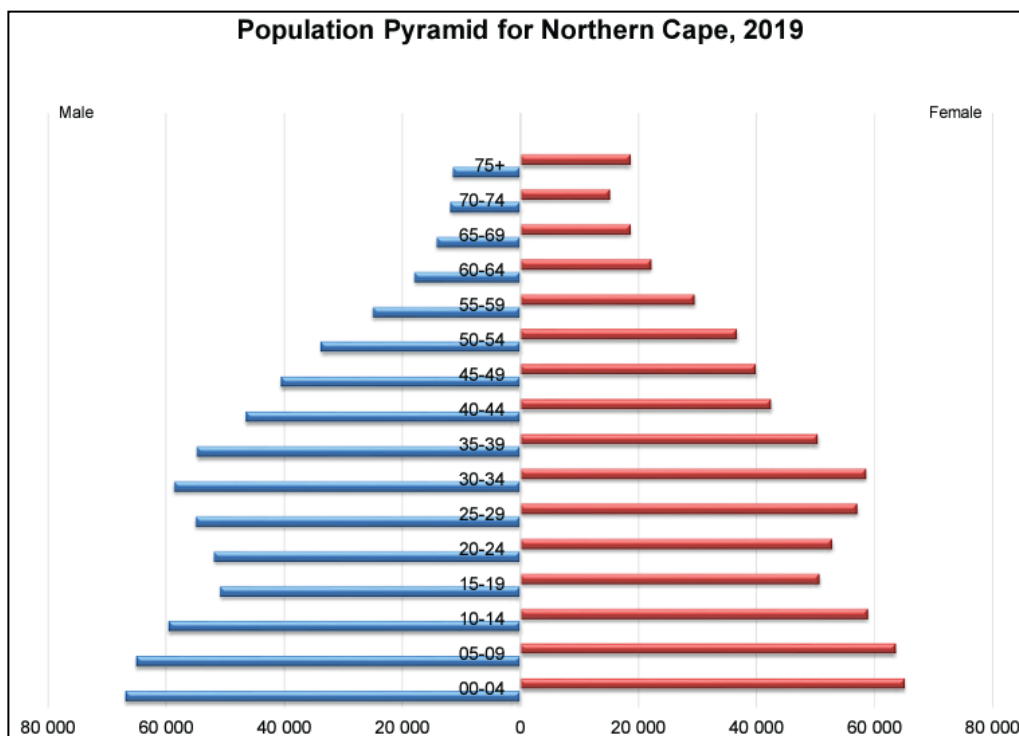


Figure 4.10: Population pyramid of the Northern Cape Province

The province's population pyramid is expansive, as it displays a young and growing population. Children between 0 and 4 years represented the largest cohort (132 020) in the province in 2019, while those aged 70 to 74 constituted the smallest (27 035). Those aged 5 to 9 years had the second largest population size (128 668). The large number of young people (children) suggest that the province has a high fertility rate.

4.4.2. Economy

The figure below illustrates the GDP growth rates of South Africa and the Northern Cape. Growth figures for the Northern Cape are provided for 2009 to 2018 and for South Africa for 2009 to 2023.

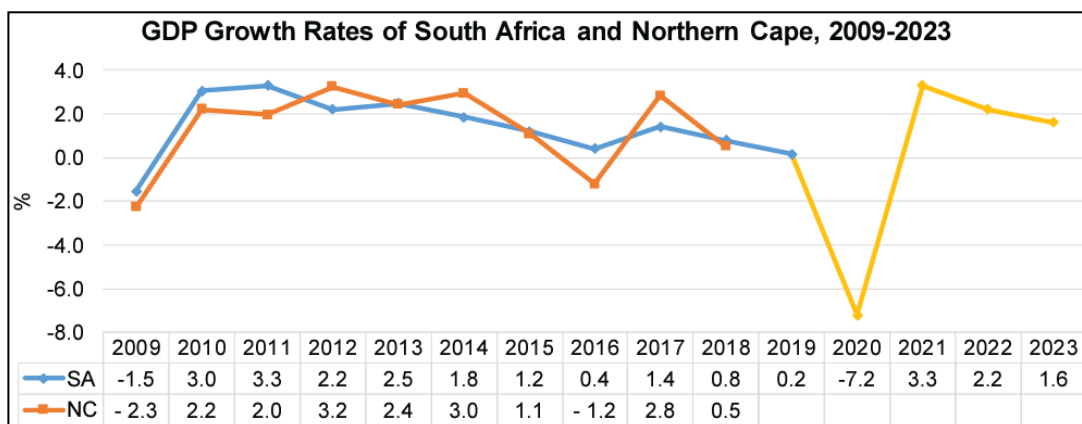


Figure 4.11: GDP Growth Rates of South Africa and the Northern Cape

In 2009, the economy of the Northern Cape and the country recorded a contraction of 2.3 per cent and 1.5 per cent respectively. After the contraction of 2009, the economy of the Northern Cape went on to grow positively for six consecutive years after which the economy contracted by 1.2 per cent in 2016. The economy of the province recovered in 2017 after output grew by 2.8 per cent and grew by a further 0.5 per cent in 2018. After contracting in 2009, the national economy went on to record positive growth each year until 2019. In 2020, the estimated contraction that the country is expected to have recorded was -7.2 per cent. National Treasury's forecasts indicate that the economy of the country is expected to show some recovery, with projected growth of 3.3 per cent in 2021, 2.2 per cent in 2022 and 1.6 per cent in 2023.

The table below includes the Northern Cape economic sectors' growth and contributions to GDP for 2017 and 2018.

Table 4.3: Northern Cape economic sectors' growth and contributions to GDP.

Sector	Growth Rate (%)		Contributions to GDP (%)	
	2017	2018	2017	2018
Primary sector	8.1	-0.3	27.3	26.9
Agriculture, forestry and fishing	12.4	-5.9	7.1	6.4
Mining and quarrying	7.1	1.1	20.2	20.5
Secondary sector	-0.4	-0.3	9.2	9.8
Manufacturing	-0.7	0.4	3.1	3.2
Electricity, gas and water	0.2	0.3	3.5	3.9
Construction	-0.9	-1.8	2.7	2.7
Tertiary sector	0.5	0.9	53.7	53.4
Trade, catering and accommodation	-0.8	0.2	10.7	9.5
Transport, storage and communication	0.6	0.7	10.8	10.3
Finance, real estate and business services	1.5	1.2	11.9	12.4
Personal services	1.8	0.8	4.8	5.0
General government services	0.0	1.3	15.5	16.1
All industries at basic prices	3.0	0.3	90.2	90.0
Taxes less subsidies on products	0.9	2.1	9.8	10.0
GDPR at market prices	2.8	0.5	100.0	100.0

The Tertiary sector was the largest sector in the Northern Cape, having made a contribution towards the provincial GDP of 53.7 per cent in 2017 and a slightly smaller contribution in 2018 at 53.4 per cent. The Tertiary sector grew by 0.5 per cent in 2017, compared to 8.1 per cent growth for the Primary sector and a 0.4 per cent contraction in the Secondary sector for the same year. In 2018, the Tertiary sector grew by 0.9 per cent, compared to a 0.3 per cent contraction for each of the Primary and Secondary sectors. In 2017, the agriculture, forestry and fishing industry recorded the highest growth rate at 12.4 per cent but contracted in 2018 at -5.9 per cent. The industry with the highest growth rate in 2018 was General government services, growing at a low 1.3 per cent. Mining and quarrying remained the largest industry in 2018, contributing 20.5 per cent to the provincial economy, with Construction remaining the smallest industry, contributing only 2.7 per cent.

World output is projected to grow by 5.5 per cent in 2021, following the estimated contraction of 3.5 per cent in 2020 due to the economic crisis brought about by the global Covid-19 pandemic. According to National Treasury, the national economy is estimated to have contracted by a significant 7.2 per cent in 2020 but is expected to show some recovery in 2021 with the economy projected to grow by 3.3 per cent. Before the start of the pandemic, South Africa was already in a recession. Gauteng made the largest contribution to the national economy in 2018, while the Northern Cape made the smallest. The provincial economy recorded low economic growth of 0.5 per cent in 2018 after growing at a higher rate in 2017 at 2.8 per cent. Provincially, Mining and quarrying remained the largest contributor to the provincial GDP. The district that made the largest contribution to the economy of the province, was Frances Baard. The largest industry in Frances Baard and Pixley ka Seme was Community services in 2019, while in Namakwa, ZF Mgcawu and John Taolo Gaetsewe, Mining was the largest.

4.4.3. Employment

Nationally, the number of employed people increased by 333 000 on a quarterly basis (from quarter 3 of 2020 to quarter 4 of 2020), while it decreased by an alarming 1.397 million on an annual basis (from quarter 4 of 2019 to quarter 4 of 2020). The number of unemployed people increased by 701 000 on a quarterly basis and by 507 000 on an annual basis. Discouraged work-seekers also increased on both a quarterly and an annual basis. The national absorption rate, which is the proportion of the working-age population aged 15 to 64 years that are employed, increased by 0.7 of a percentage point from 37.5 per cent in quarter 3 of 2020 to 38.2 per cent in quarter 4 of 2020, while it decreased by 4.2 percentage points on an annual basis. The unemployment rate increased by 1.7 percentage points from the third quarter to the fourth quarter of 2020 and increased by 3.4 percentage points year-on-year. The nation's unemployment rate stood at 32.5 per cent in the fourth quarter of 2020.

The labour market status of the Northern Cape for quarter 4 of 2019 and quarters 3 and 4 of 2020 is shown in the following table.

Table 4.4: Labour Market Status of the Northern Cape.

Labour market	2019 Q4 (‘000)	2020 Q3 (‘000)	2020 Q4 (‘000)	Qtr-to-qtr change (‘000)	Yr-on-yr change (‘000)
Population aged 15-64	806	812	816	4	10
Labour force	458	373	431	59	-27
Employed	335	287	308	21	-27
Unemployed	123	86	124	38	1
Not economically active	348	439	384	-54	37
Discouraged work-seekers	67	91	74	-17	7
Other	281	348	311	-37	29
Rates	(%)	(%)	(%)	(Percentage point)	(Percentage point)
Unemployment rate	26.9	23.1	28.7	5.6	1.8
Absorption rate	41.6	35.3	37.7	2.4	-3.9
Labour force participation rate	56.8	45.9	52.9	7.0	-3.9

The number of people employed in the Northern Cape increased by 21 000 on a quarterly basis while it decreased by 27 000 on an annual basis. The number of unemployed people increased on both a quarterly as well as an annual basis. Discouraged work-seekers decreased by 17 000 from the previous quarter but increased by 7 000 from the fourth quarter of 2019.

On a quarterly basis, the unemployment rate for the Northern Cape increased by 5.6 percentage points from 23.1 per cent in quarter 3 of 2020 to 28.7 per cent in quarter 4 of 2020. The absorption rate increased by 2.4 percentage points on a quarterly basis while the labour force participation rate increased by 7.0 percentage points. On an annual basis, the Northern Cape's unemployment rate increased by 1.8 percentage points while the absorption rate and the labour force participation rate each decreased by 3.9 percentage points.

4.4.4. Human Development

The HDI increased for all provinces. For the Northern Cape, it increased from 0.58 in 2010 to 0.66 in 2019. This indicates that development is taking place and the lives of the people are changing for the better in the province. The Western Cape had the highest HDI in both years under review at 0.69 and 0.74 respectively. Namakwa had the highest HDI at

0.61 in 2010 and 0.69 in 2019. The district with the lowest was John Taolo Gaetsewe at 0.55 and 0.63 in 2010 and 2019 respectively. The HDI of all the districts in the Northern Cape increased between 2010 and 2019.

4.4.5. Education

Table 6 shows the education attainment in Northern Cape and South Africa in 2019 with Table 7 providing the education attainment in the districts within the Northern Cape for 2010 and 2019.

The education category with the largest share of people in both the province and in South Africa was National Senior Certificate (NSC) Grade 12, followed by Upper secondary. Looking at those with no education, at 4.4 per cent compared to 3.7 per cent, the Northern Cape had a larger percentage than the country.

Table 4.5: Education Attainment for Individuals Aged 20 Years and Older, 2019

	Northern Cape (%)	South Africa (%)
Other	0.4	0.5
Post School	9.2	15.4
NSC Grade 12	29.1	30.8
Upper Secondary	22.6	25.1
Lower Secondary	16.8	11.8
Completed Primary	5.9	4.2
Some Primary	11.7	8.5
None	4.4	3.7

Table 4.6: Education Attainment for Individuals Aged 20 Years and Older, 2019

District	Year	No schooling	Grade 0-2	Grade 3-6	Grade 7-9	Grade 10-11	Certificate / diploma without matric	Matric only	Matric & certificate / diploma	Matric & Bachelors degree	Matric & Postgrad degree
Namakwa	2010	5 585	1 808	12 056	28 049	12 878	455	15 757	4 296	1 803	636
	2019	4 385	1 383	11 669	30 748	19 134	431	21 941	5 693	2 564	796
Pixley ka Seme	2010	17 307	3 922	18 412	27 574	17 088	447	22 383	3 633	2 886	981
	2019	14 707	3 158	18 450	31 873	27 428	620	32 631	4 874	4 455	1 042
ZF Mgcau	2010	14 600	4 495	22 879	40 729	26 879	633	32 165	5 950	3 135	1 174
	2019	11 876	3 953	21 572	46 456	43 651	695	48 570	7 553	4 098	1 121
Frances Baard	2010	22 693	5 094	25 495	47 424	44 942	1 276	56 979	10 718	6 330	2 636
	2019	19 774	4 689	27 920	54 066	67 371	1 246	81 022	14 706	9 673	3 302
John Taolo Gaetsewe	2010	16 553	3 859	18 258	20 919	21 117	533	23 082	6 067	2 427	959
	2019	15 050	3 558	19 376	26 173	36 695	633	37 716	9 238	3 148	1 282

In all districts, the number of people in the Matric and post graduate degree category increased except in ZF Mgcau where it decreased. The number of people in the category of No schooling decreased in all districts between 2010 and 2019. Frances Baard district had the largest number of people in the Matric only category at 56 979 and 81 022 in 2010 and 2019 respectively.

4.4.6. Income and poverty

In 2010, John Taolo Gaetsewe had the largest percentage of people in poverty at 61.2 per cent, while in 2019 Frances Baard had the largest percentage at 62.3 per cent. Looking at the percentage of people living in poverty, John Taolo Gaetsewe remained unchanged at 61.2 per cent in 2010 and 2019, while the number of people in poverty increased from 126 862 in 2010 to 160 043 in 2019. The district with the smallest percentage of people living in poverty in both years was Namakwa even though the percentage and number of people in poverty increased. All districts had an increase in the number of people living in poverty between 2010 and 2019 with Frances Baard having the largest number in both years.

Table 4.7: Poverty Indicators by District, 2010 and 2019

District	2010		2019	
	No. of People in Poverty	Percentage of People in Poverty (%)	No. of People in Poverty	Percentage of People in Poverty (%)
Namakwa	48 499	38.7	55 319	39.7
Pixley Ka Seme	99 878	52.3	118 017	53.4
ZF Mgcawu	116 004	47.9	138 775	48.8
Frances Baard	201 309	56.1	273 376	62.3
John Taolo Gaetsewe	126 862	61.2	160 043	61.2
Northern Cape	592 552	52.7	745 530	55.4

The Northern Cape's Gini-coefficient increased from 0.59 in 2010 to 0.61 in 2019, which shows a slight increase in income inequality. With the exception of Gauteng and Mpumalanga, all provinces recorded an increase in income inequality.

The income bracket with the largest number of households in 2019 was R192 000 to R360 000 per annum. Very few households in the province were earning below R6 000 and above R2 400 000 per annum. In South Africa and the Northern Cape, most households derived their income from salaries followed by grants. Very few households earned an income from pensions. There is a high dependence on grants in the province as well as on a national level.

4.5. The ZF Mgcawu District Municipality

The ZF Mgcawu District Municipality, previously known as Siyanda District Municipality, is located in the mid-northern section of the Northern Cape Province in South Africa. It borders Botswana to the north and Namibia to the west. The municipality covers a vast area of over 100,000 square kilometers, which accounts for nearly 30% of the entire province's geographical area. Within this area, approximately 65,000 square kilometers comprise the expansive Kalahari Desert, Kgalagadi Transfrontier Park, and the former Bushmanland.

The ZF Mgcawu District is composed of five local municipalities: Dawid Kruiper, Kai !Garib, Tsantsabane, !Kheis, and Kgatelopele. The district's administrative capital is Upington, where the municipal government is situated. As a Category C municipality, the ZF Mgcawu District Municipality operates under a specific governance framework.

The municipality is managed by a council consisting of 21 councilors, 13 of whom are ward councilors and the remaining 8 representing political parties through proportional representation. The council is responsible for providing political leadership, ensuring accountability to communities and stakeholders, and implementing sound policies and programs. In its decision-making processes, the council aims to strike a balance between efficiency, transparency, and meaningful participation of citizens and other stakeholders.

One of the significant challenges faced by the district is its vast size and diverse geography. The Kalahari Desert, Kgalagadi Transfrontier Park, and former Bushmanland contribute to the unique natural environment of the area. Balancing the need for sustainable development and preserving the environment and natural resources is a priority for the municipality.

The ZF Mgcawu District Municipality has a population of approximately 284,375 people, accounting for 0.5% of South Africa's total population as of 2019. The population growth rate in the district has been similar to the national average, with an average annual growth rate of 1.53% between 2008 and 2018. Poverty remains a challenge, with 31.8% of the district's population living below the poverty line as of 2019.

The district's economy relies on four main sectors: agriculture, mining, tourism, and manufacturing. Agriculture plays a significant role, given the fertile lands and the region's focus on crop farming. The manufacturing sector, particularly the food, beverages, and tobacco sub-sector, contributes significantly to the district's Gross Value Added (GVA) in manufacturing.

Overall, the ZF Mgcawu District Municipality faces unique opportunities and challenges due to its vast size, diverse geography, and economic sectors. The municipality strives to provide quality service delivery, ensure accountable governance, and balance development with the preservation of natural resources. Collaborative efforts among stakeholders and effective implementation of policies and programs are crucial for the district's sustainable development and the well-being of its residents.

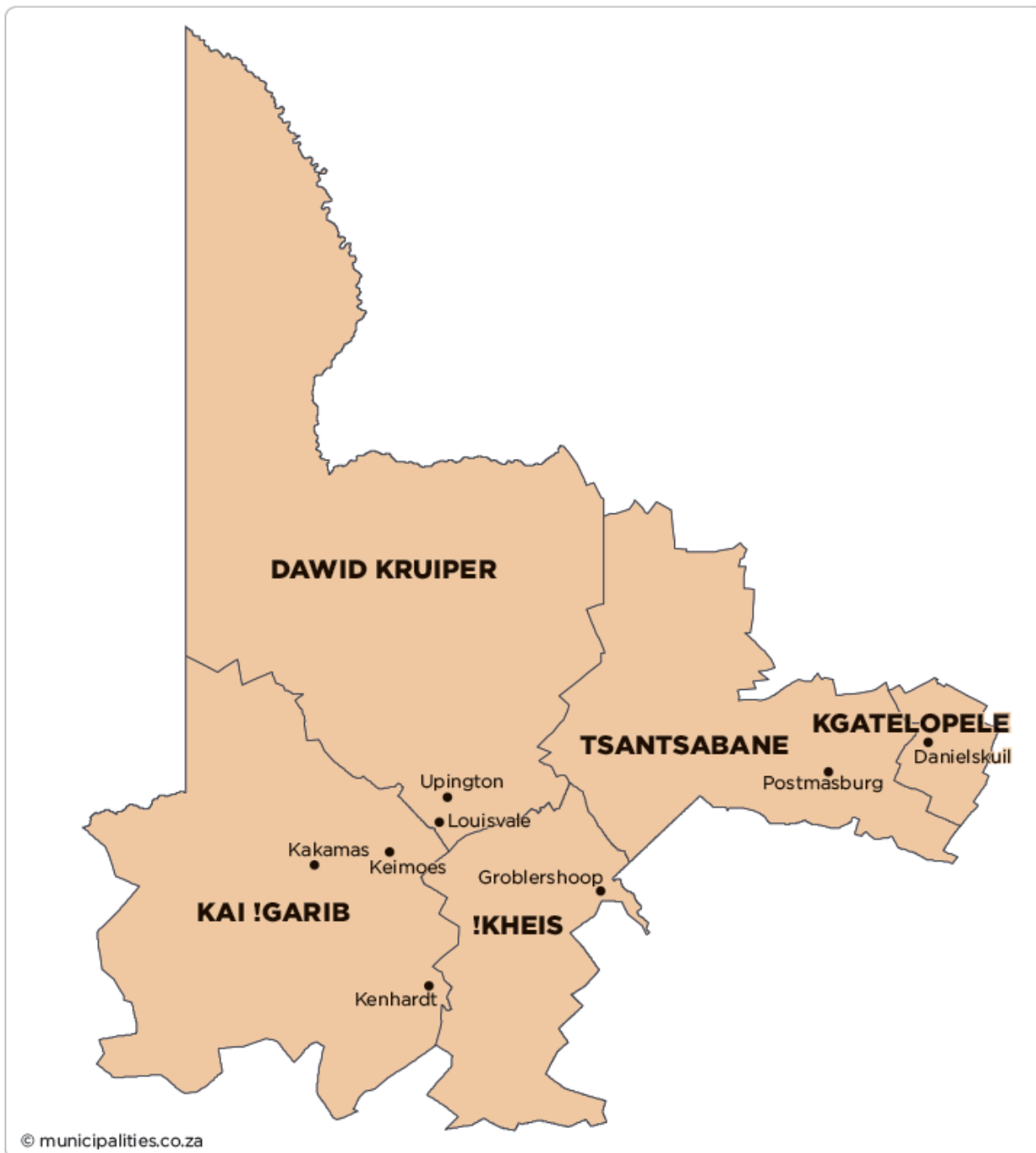


Figure 4.12: Local Municipalities of ZF Mgcawu District Municipality Source: (Local Government Handbook, 2016)

4.5.1. Housing

It is evident that the ZF Mgcawu District Municipality faces significant challenges related to informal settlements. The district has a substantial population living below the poverty line, indicating a pressing need for adequate housing and basic services. The level of education has shown improvement over the years, indicating a potential for socioeconomic development. However, the district's vast size, arid climate, and sparsely populated areas pose unique challenges for service delivery and infrastructure development. See figure 4.12 below.

The district's strategic location, with key national roads traversing the area and linking major industrial centers, highlights the importance of addressing the informal settlements issue. The presence of transportation routes emphasizes the potential for economic growth and development in the region. Additionally, the district's inclusion in the Arid Innovation Region and its proximity to natural attractions like the Kalahari Desert and Kgalagadi Trans Frontier Park provide opportunities for tourism and sustainable development.

The formalization of services for informal settlements is crucial in the ZF Mgcawu District Municipality. The high poverty rate, significant housing backlog, and limited access to basic services necessitate a comprehensive approach to address

these challenges. By implementing a Formalisation of Service for Informal Settlements project, the district can improve the living conditions of its residents, enhance service delivery, and promote social and economic development.

The project's significance lies in its potential to provide adequate housing, access to clean water, electricity, and proper sanitation facilities for the residents of informal settlements. It aligns with the municipality's objectives of improving governance, service delivery, and addressing the housing backlog as outlined in its Integrated Development Plan. Furthermore, the project contributes to fulfilling the constitutional mandate of providing adequate housing and basic services to all citizens.

The ZF Mgcawu District Municipality's unique administrative context, including its geographical location, transportation routes, and potential for tourism, underscores the importance of addressing the informal settlements issue. By formalizing services in these settlements, the district can create a more inclusive and sustainable environment, fostering social cohesion and economic opportunities.

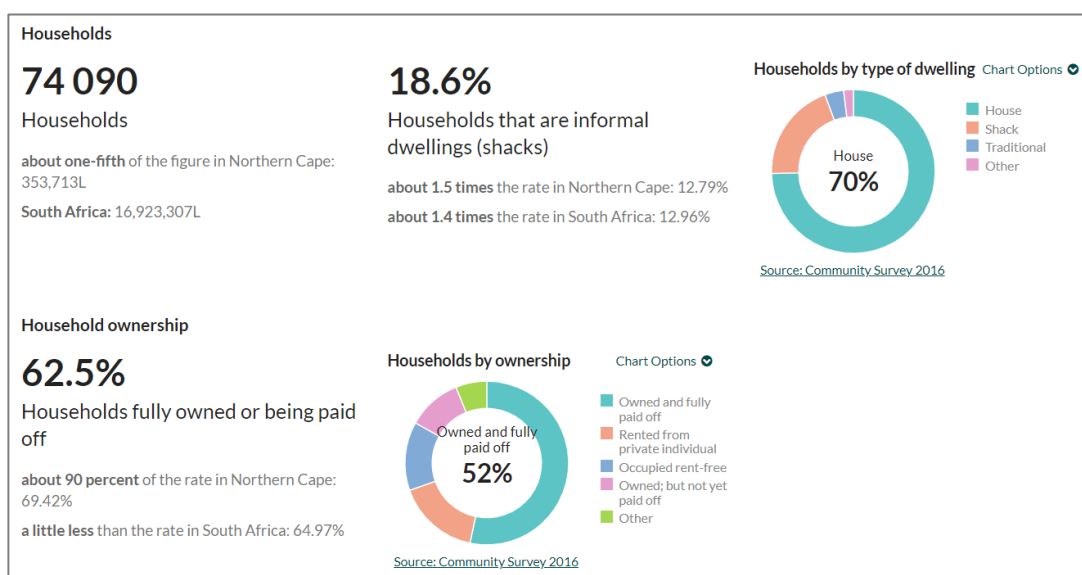


Figure 4.13: Local Municipalities of ZF Mgcawu District Municipality Source: (Local Government Handbook, 2016)

4.5.2. Population

When compared to other regions, the ZF Mgcawu District Municipality accounts for a total population of 284,375, or 21.1% of the total population in the Northern Cape Province, with the Frances Baard being the most populous district in the Northern Cape Province for 2018. The ranking in terms of the size of ZF Mgcawu compared to the other regions remained the same between 2008 and 2018. In terms of its share the ZF Mgcawu District Municipality was slightly smaller in 2019 (21.1%) compared to what it was in 2008 (21.5%). When looking at the average annual growth rate, it is noted that ZF Mgcawu ranked third (relative to its peers in terms of growth) with an average annual growth rate of 1.5% between 2008 and 2018.

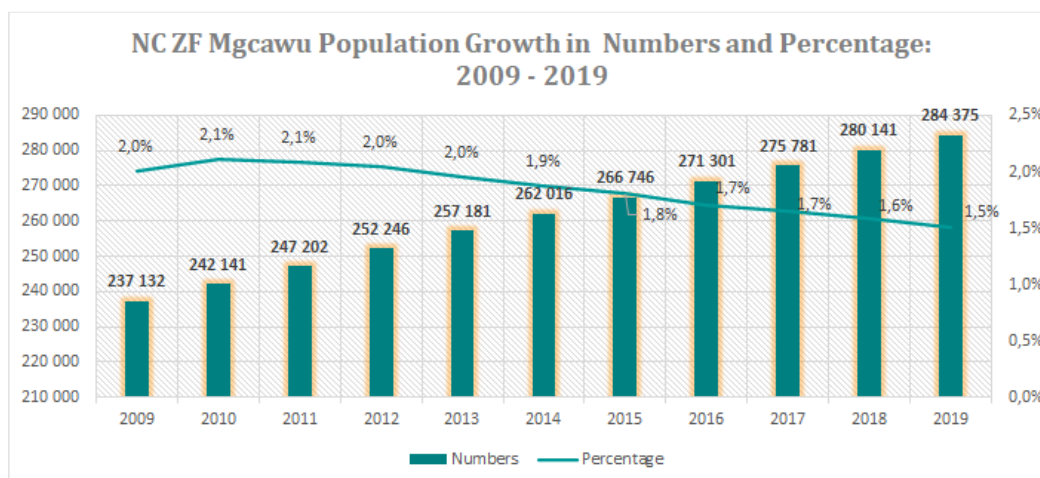


Figure 4.14: Local Municipalities of ZF Mgcawu District Municipality Source: (Local Government Handbook, 2016)

The population growth in the local municipalities varied significantly. The Tsantsabane Local Municipality increased the most, in terms of population, with an average annual growth rate of 2.61%, the Kgatelopele Local Municipality had the second highest growth in terms of its population, with an average annual growth rate of 2.53%. The !Kheis Local Municipality had the lowest average annual growth rate of -0.10% relative to the other within the ZF Mgcawu District Municipality.

Table 4.8: Total population - local municipalities of ZF Mgcawu District Municipality, 2008, 2013 and 2018 [Numbers percentage]

Municipality	2008	2013	2018	Average Annual growth
Kai !Garib	64,600	67,400	70,500	0.87%
!Kheis	17,800	17,300	17,600	-0.10%
Tsantsabane	31,600	36,600	40,900	2.61%
Kgatelopele	16,800	19,400	21,600	2.53%
Dawid Kruiper	97,600	107,000	115,000	1.69%
ZF Mgcawu	228,446	247,820	266,001	1.53%

The demographic data reveals that the district has a relatively young population, with a median age similar to that of the Northern Cape and slightly higher than the national average. The population distribution by age range indicates a considerable percentage of individuals in the 0-9 and 10-19 age groups, highlighting the need for adequate housing and essential services to support the well-being and development of young residents. The average annual growth rate of 1.5% between 2008 and 2018 indicates a steady increase in population, further emphasizing the urgency to address the housing backlog and service deficiencies in informal settlements.

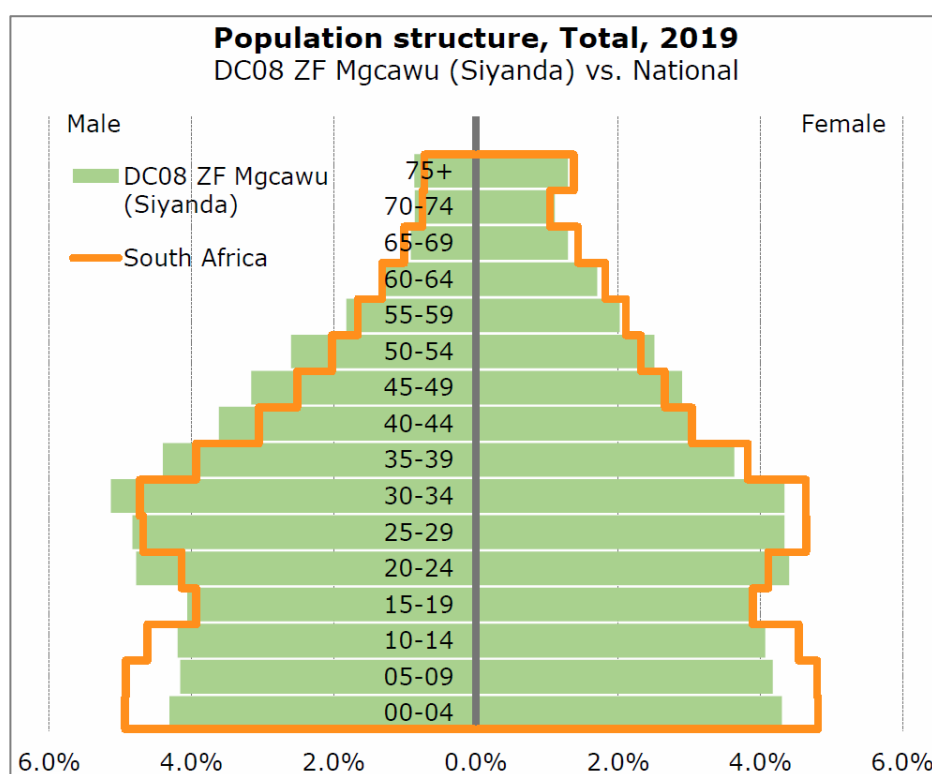


Figure 4.15: Population Structure of ZF Mgcawu District Municipality

4.5.3. Economy

The ZF Mgcawu District Municipality has experienced significant economic growth, with its GDP increasing from R 12.6 billion in 2008 to R 24.2 billion in 2018. This contributed to 24.52% of the Northern Cape Province's GDP of R 98.6 billion in 2018, up from 23.09% in 2008. The mining sector is the largest contributor to the municipality's economy, accounting for R 4.64 billion or 21.3% of the total GVA. The community services sector follows closely at 21.1%, while the finance sector contributes 13.5%. The electricity sector has the smallest contribution, amounting to R 735 million or 3.38% of the total GVA. Despite this growth, the municipality is projected to have a negative average annual growth rate of -1.20% from 2018 to 2023, while the Northern Cape Province and South Africa are expected to grow at -0.03% and 1.50% respectively.

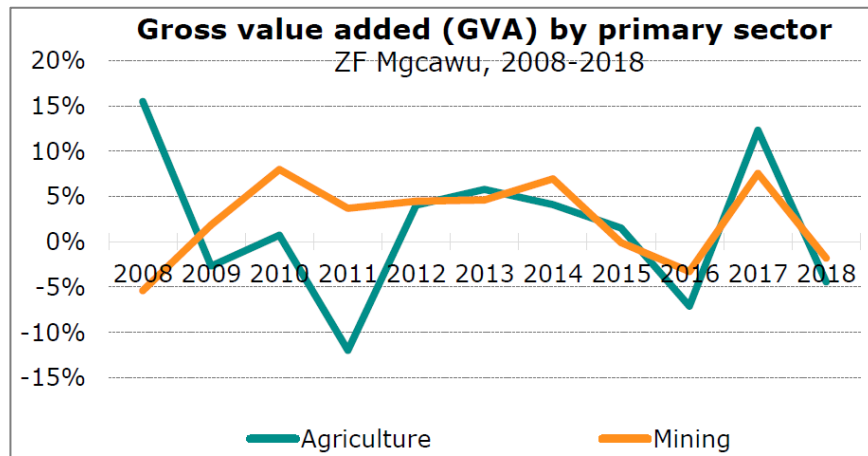


Figure 4.16: Gross Value Added (GVA) by primary sector - ZF Mgcawu, 2008-2018 [Annual percentage change]

Agriculture in the region primarily focuses on grape production, which is exported to Europe. The unique ripening time of the grapes gives them an advantage over grapes from other countries. Livestock and game farming are also prominent in the agricultural sector. The industry has undergone significant restructuring since the liberalization of the South African economy, experiencing substantial growth between 1998 and 2002. However, market competition and legislative changes have posed challenges to this growth.

Between 2008 and 2018, the agriculture sector experienced the highest positive growth in 2008 with an average growth rate of 15.5%. The mining sector reached its highest point of growth of 8.0% in 2010. The agricultural sector experienced the lowest growth for the period during 2011 at -12.0%, while the mining sector reaching its lowest point of growth in 2008 at -5.4%. Both the agriculture and mining sectors are generally characterised by volatility in growth over the period.

4.5.4. Employment

In 2018, the ZF Mgcawu District Municipality employed 84,500 individuals, representing 26.01% of the total employment in the Northern Cape Province (325,000) and 0.53% of South Africa's total employment (16.1 million). Over the period from 2008 to 2018, employment in ZF Mgcawu increased at an average annual rate of 1.72%. This growth rate exceeded the average annual labour force growth rate of 1.60%, leading to a decrease in unemployment from 22.12% in 2008 to 22.07% in 2018 within the district municipality.

Frances Baard District Municipality employed the highest number of people relative to other regions in the Northern Cape Province, with a total of 101,000 employed individuals, while Namakwa District Municipality had the lowest employment rate with 36,200 employed individuals. In ZF Mgcawu District Municipality, the community services sector employed the largest number of people in 2018, totalling 20,400 individuals or 24.2% of the district's total employment. The agriculture sector followed closely with 19,100 individuals employed (22.6% of total employment), while the electricity sector employed the fewest people (306 or 0.4%), followed by the transport sector (2,680 or 3.2%).

In terms of unemployment, ZF Mgcawu had a total of 23,400 unemployed individuals in 2018, an increase of 3,380 compared to 2008. This accounted for 18.22% of the total number of unemployed people in the Northern Cape Province. The district municipality experienced an average annual increase of 1.57% in the number of unemployed individuals, which was lower than the Northern Cape Province's average annual increase of 2.14%. The unemployment rate in ZF Mgcawu District Municipality in 2018 was 22.07%, representing a decrease of -0.0523 percentage points. This rate was lower than the unemployment rate in the Northern Cape but higher than the national unemployment rate, which stood at 27.22% in 2018, an increase of -3.62 percentage points from 2008.

When comparing unemployment rates among regions within ZF Mgcawu District Municipality, !Kheis Local Municipality had the highest unemployment rate of 29.7% in 2018, an increase from 20.9% in 2008. On the other hand, the Kai !Garib Local Municipality had the lowest unemployment rate of 15.7% in 2018, which rose slightly from 14.3% in 2008.

4.5.5. Education

Between 2008 and 2018, the ZF Mgcawu District Municipality experienced positive changes in the educational attainment of its population aged 15 years and older. The number of individuals without any schooling decreased annually at a rate of -2.70%, while those with a 'matric only' qualification increased from 28,100 to 44,300. The number of individuals with 'matric and a certificate/diploma' increased at an average annual rate of 1.87%, and those with a 'matric and a Bachelor's' degree increased at a rate of 2.94%. Overall, there has been an improvement in the level of education, particularly in the number of people with a 'matric' or higher qualification.

Enrolment in Pre-Grade R and Grade R for children under the age of 5 has been increasing over the past 9 years, but it remains low at 20%. Grade R enrolment represents only 7% of total enrolment, despite approximately 33% of school-age children being of appropriate age. This indicates a lack of attendance in Early Childhood Development, primarily due to inadequate facilities. Early childhood development plays a vital role in long-term educational success and addressing the low Grade R attendance should be a priority for the ZF Mgcawu District Municipality.

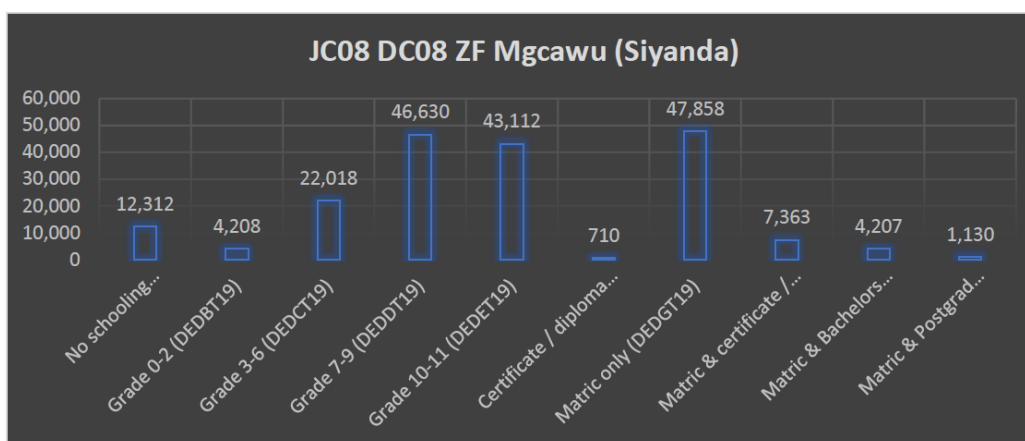


Figure 4.17: Education Levels within the Population

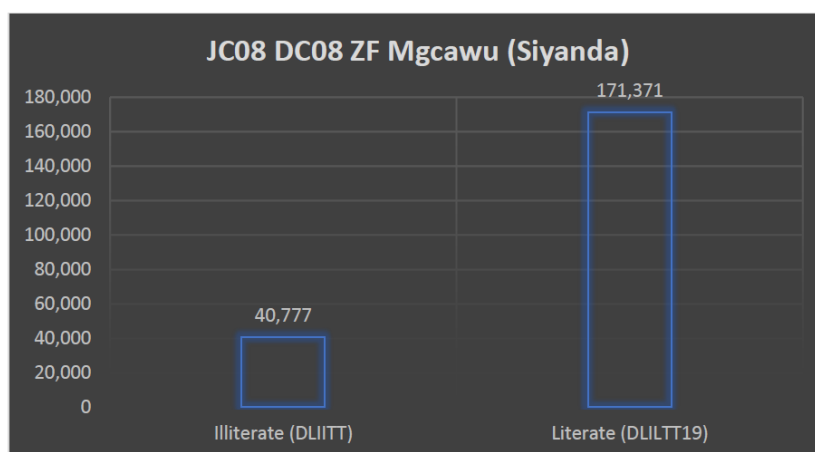


Figure 4.18: Skills Level: Functional literacy: age 15+, completed grade 7 or higher (2019)

According to the 2017 SNAP survey, the ZF Mgcawu District Municipality has the youngest population in the province, with 36% of the population aged between 15 and 34. The district has 98 ordinary schools, serving 56,372 learners and employing 1,792 educators. School infrastructure in the district is generally well-utilized and maintained, except for remote areas such as Mier.

4.6. Dawid Kruiper Local Municipality

The Dawid Kruiper Local Municipality is a Category B municipality that is part of the ZF Mgcawu District in the Northern Cape province of South Africa. It shares borders with the Kgalagadi Transfrontier Park to the north, Botswana to the northeast, and Namibia to the west. As the largest municipality in the district, it covers nearly half of the district's total geographical area. The municipality was established in August 2016 through the merger of the Mier and //Khara Hais Local Municipalities. It encompasses several small towns and includes the !Khomani San community within its jurisdiction.

One of the prominent towns in the municipality is Rietfontein, located approximately 280km northwest of the nearest major town, Upington. Upington, situated 400km west of Kimberley, serves as a regional hub with amenities such as an airport and landing strip. The town benefits from its natural surroundings, being bordered by the Kalahari Desert and the Orange River, South Africa's largest river. This unique location contributes to the municipality's diverse offerings, which include commercial, educational, military, agricultural, medical, transport, and tourism services.

The Dawid Kruiper Local Municipality spans an expansive area of 44 399km². It comprises several cities and towns, including Mier, Rietfontein, and Upington. The municipality's economy is driven by various sectors, including agriculture, business services, game farming, tourism and hospitality, manufacturing, transport, community services, and social and personal services.

4.6.1. Households and Services

In Dawid Kruiper Municipality, there are a total of 28,705 households, which accounts for about two-fifths of the households in ZF Mgcau and approximately 10 percent of the households in the Northern Cape province. Among these households, 25.8% are classified as informal dwellings or shacks, which is about 1.4 times the rate in ZF Mgcau and double the rate in the Northern Cape. In terms of dwelling types, the majority of households (62%) are houses, while a smaller percentage consists of shacks, apartments, or other types of dwellings. The majority of households (73.7%) in the municipality are either fully owned or being paid off, which is about 20 percent higher than the rate in ZF Mgcau and slightly higher than the rate in the Northern Cape.

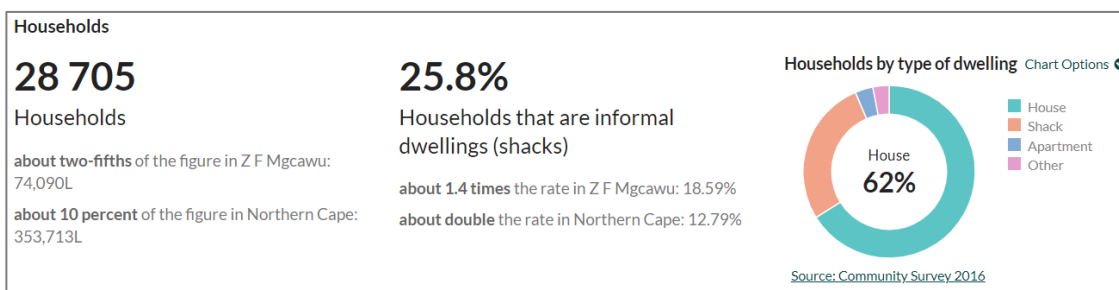


Figure 4.19: Dawid Kruiper Municipality Informal Households Percentage

About 40.2% of households have women as their head, which is approximately 10 percent higher than the rate in ZF Mgcau and slightly higher than the rate in the Northern Cape. Additionally, there are 29 households with heads under 18 years old, representing about one-third of the figure in ZF Mgcau and less than 10 percent of the figure in the Northern Cape. The average annual household income in the municipality is estimated at R29,400, which is similar to the amounts in both ZF Mgcau and the Northern Cape.

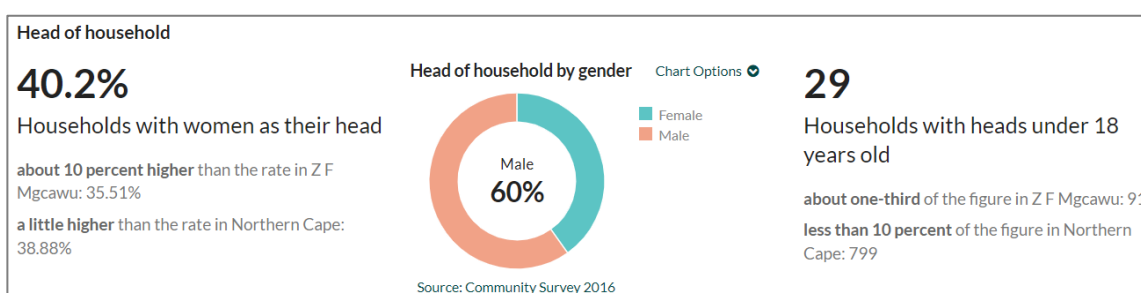


Figure 4.20: Dawid Kruiper Municipality Women Headed Households

In terms of service delivery in Dawid Kruiper Municipality, the majority of households (96.3%) receive water from a regional or local service provider, which is about 10 percent higher than the rate in ZF Mgcau and slightly higher than the rate in the Northern Cape. Only 2% of households rely on water tankers, which is significantly lower than the rate in ZF Mgcau but more than double the rate in the Northern Cape. When it comes to electricity, a small percentage (3.1%) of households have no access to electricity, which is about half the rate in ZF Mgcau and the Northern Cape. However, the majority of households (73%) have in-house prepaid meters, slightly higher than the rate in ZF Mgcau and about 90 percent of the rate in the Northern Cape.

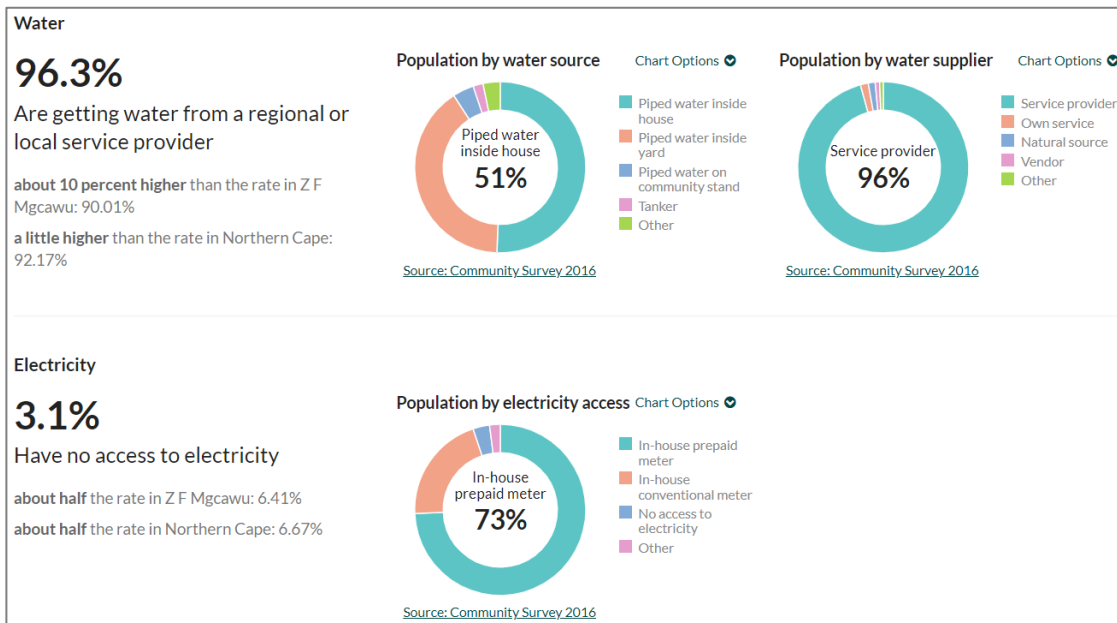


Figure 4.21: Dawid Kruiper Municipality Access to Water & Electricity

Regarding toilet facilities, 72% of households in the municipality have access to flush or chemical toilets, which is slightly lower than the rate in ZF Mgcawu but comparable to the rate in the Northern Cape. Only 2.4% of households have no access to any toilets, which is significantly lower than the rate in ZF Mgcawu and the Northern Cape. When it comes to refuse disposal, the majority of households (84.6%) receive refuse disposal services from a local authority, private company, or community members, which is about 10 percent higher than the rate in ZF Mgcawu and approximately 25 percent higher than the rate in the Northern Cape. Only 4% of households have their own dump, which is significantly lower than the rate in ZF Mgcawu and the Northern Cape.

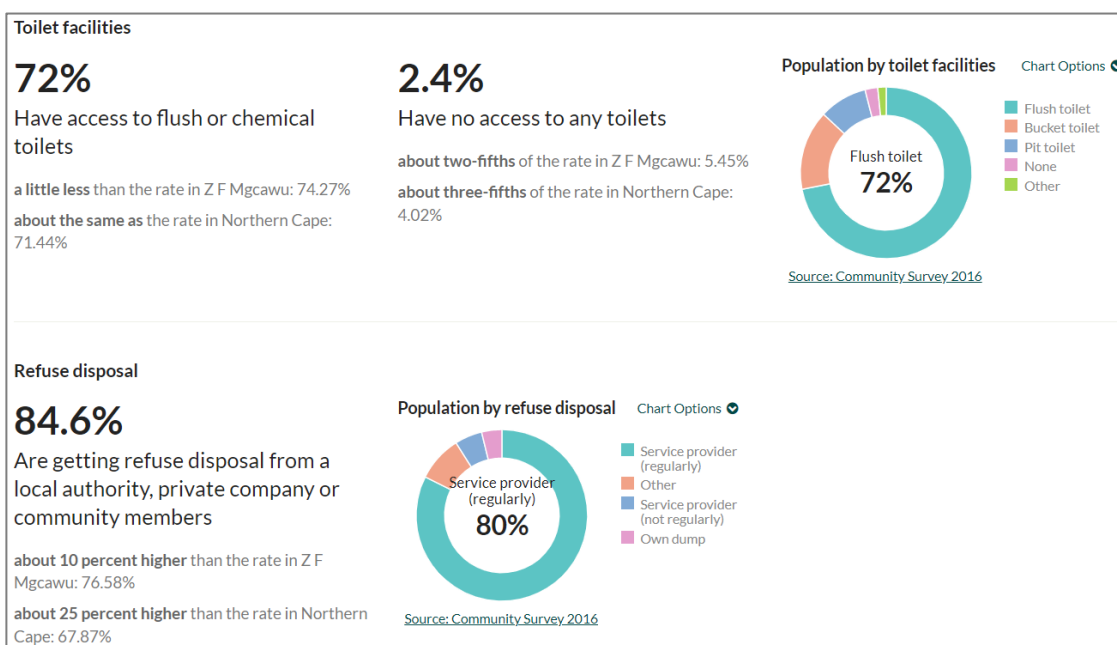


Figure 4.22: Dawid Kruiper Municipality Access to Sanitation Services

4.6.2. Population

In terms of demographics, the median age in Dawid Kruiper Municipality is 25 years, which is slightly less than the figures in ZF Mgcawu and the Northern Cape, both of which have a median age of 26. The population distribution by age range shows that 37% of the population is under 18 years old, which is slightly higher than the rates in ZF Mgcawu and the Northern Cape, both at 36%. The largest age category is between 18 and 64 years, accounting for 57% of the population.

The total population in Dawid Kruiper Municipality is 107,162 people, which is about two-fifths of the figure in ZF Mgcawu and approximately 10 percent of the figure in the Northern Cape. The population group composition shows that 21% of the population is Black African, which is about 90 percent of the rate in ZF Mgcawu and about two-fifths of the rate in the Northern Cape. In terms of gender, the municipality has a slightly lower percentage of males (49%) compared to ZF Mgcawu (51%) but a similar rate to the Northern Cape (50%).

The most spoken language at home in Dawid Kruiper Municipality is Afrikaans, with 90% of the population using it as their primary language. This is about 10 percent higher than the figure in ZF Mgcawu and more than 1.5 times the figure in the Northern Cape. The remaining 1% of the population speaks various other languages.



Figure 4.23: Dawid Kruiper Municipality Population

4.6.3. Economy and Employment

Dawid Kruiper Local Municipality's (DKLM) economy is primarily driven by the trade and retail sectors, which are supported by its robust tourism and agricultural industries. However, this reliance on a few sectors leaves the local economy vulnerable to changes in these industries. To address this vulnerability, the municipality aims to diversify its economy by exploring opportunities in other sectors. The manufacturing sector, in particular, is identified as a key area for growth and development, and the Spatial Development Framework (SDF) includes provisions for the allocation of land for industrial development, aiming to stimulate sector growth and diversify the economy.

Agriculture plays a crucial role in DKLM's economy, presenting opportunities for expansion and job creation. The municipality seeks to strengthen linkages between the agricultural sector and other sectors of the economy. Additionally, the potential for diamond mining in the Rietfontein area and the economic spinoffs from salt mining on the salt pans are recognized as further avenues for future economic development.

In summary, DKLM acknowledges the need to diversify its economy beyond the trade and retail sectors and focuses on developing the manufacturing sector, leveraging its agricultural strengths. The municipality also recognizes the significance of agriculture and mining as potential sources of economic growth, while considering the establishment of industrial zones and the exploration of green energy opportunities to further boost the local economy.

In terms of employment, Dawid Kruiper Municipality has an employment rate of 40.8%, which is about 90 percent of the rate in ZF Mgcawu and slightly higher than the rate in the Northern Cape. The majority of the population (71%) is employed in the formal sector, while a smaller portion is engaged in the informal sector or private household work. The average annual income in the municipality is R30,000, which is the same as the figures in ZF Mgcawu and the Northern Cape. The income distribution shows that 15% of employees earn between R75,000 and R150,000, which is

about 1.4 times the rate in ZF Mgcawu and about 10 percent higher than the rate in the Northern Cape.

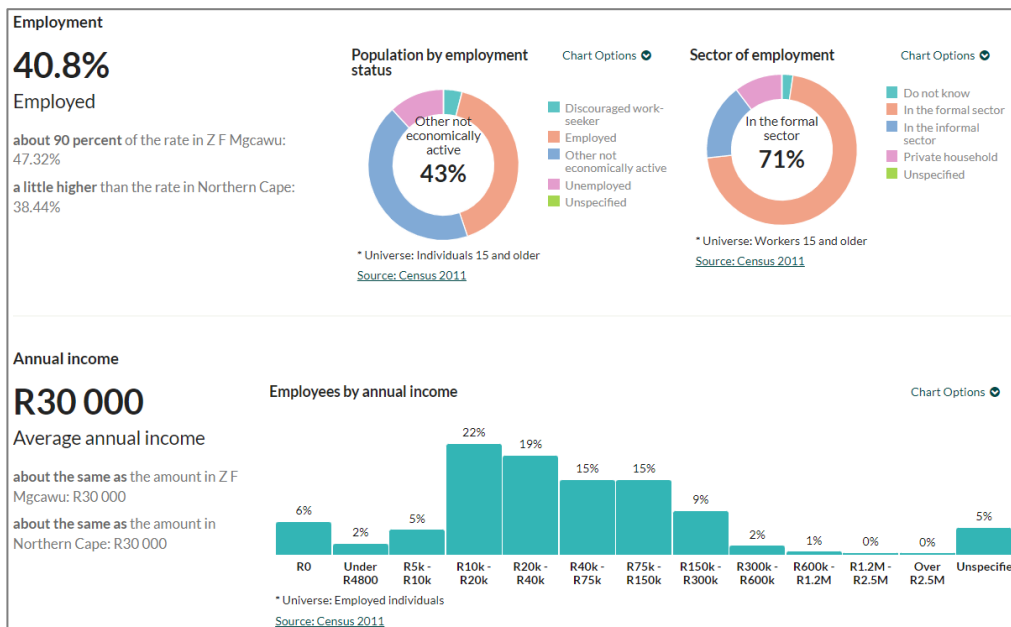


Figure 4.24: Dawid Kruiper Municipality Employment & Economy

Regarding internet access, 32% of households in Dawid Kruiper Municipality access the internet via a cellphone, while 9% use other mobile services. Only 4% of households have access to the internet at their place of work, which is lower than the rates in both ZF Mgcawu and the Northern Cape. Internet access in dwellings and internet cafes is also reported, with varying percentages.

4.6.4. Education

According to available data from the Community Survey 2016, the educational landscape in Dawid Kruiper Local Municipality (DKLM) shows positive trends. Approximately 68.3% of the population aged 20 and older have completed Grade 9 or higher, which is about 10% higher than the rates in Z F Mgcawu and the Northern Cape. This indicates a relatively higher educational attainment in DKLM compared to the neighboring regions.

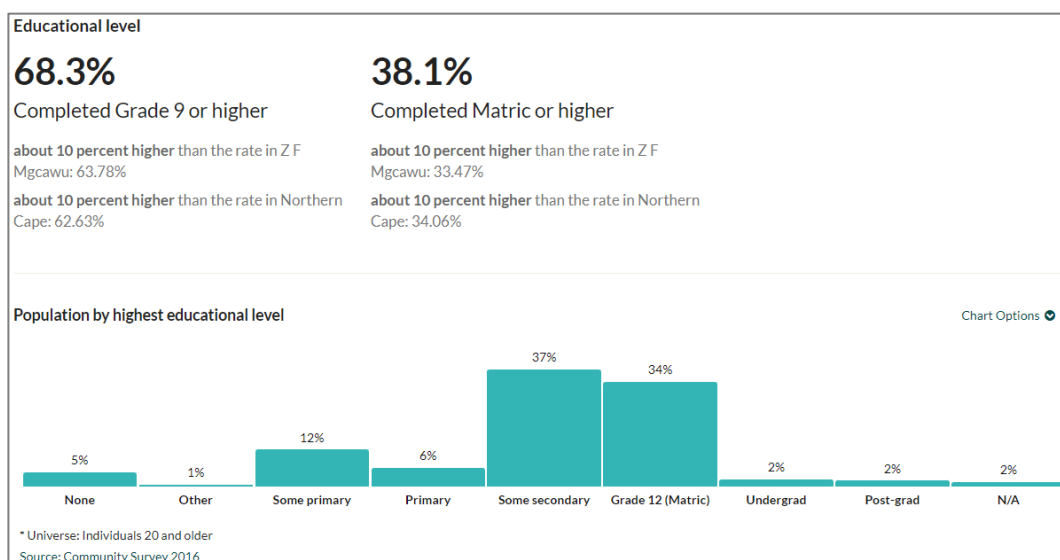


Figure 4.25: Dawid Kruiper Municipality Education Level

Furthermore, 38.1% of the population in DKLM has completed Matric or higher, again about 10% higher than the rates in Z F Mgcawu and the Northern Cape. This suggests that a significant portion of the population has achieved a secondary education level or beyond, which is crucial for enhancing opportunities for employment and personal development.

These educational achievements in DKLM reflect a positive educational environment within the municipality. Education plays a vital role in equipping individuals with the necessary skills and knowledge for economic and social advancement. The relatively higher educational levels in DKLM, particularly in terms of Grade 9 completion and Matric attainment, are encouraging indicators for the municipality's future prospects and the overall well-being of its residents.

4.6.5. Demographic Profile of Local Municipality Ward

Demographics of the Ward 8 has 4,887 people, less than 10% of Z F Mgcawu (236,784) and the Northern Cape (1,145,861). Median age is 32, 25% higher than Z F Mgcawu (26) and 1.3 times higher than the Northern Cape (25). White (60%), Black African (13%), Coloured (26%), Indian or Asian (0%), and other (2%). 52% are women. Afrikaans is spoken at home by 89%, far more than Z F Mgcawu (75.37%) and the Northern Cape (52.91%). Residents (91.5%) were born in South Africa, slightly less than Z F Mgcawu (96.05%) and the Northern Cape (95.99%).

Ward 8 has 1,658 households, less than 10% of Z F Mgcawu (67,468) and the Northern Cape (313,402). 81% of households live in houses, while the rest live in apartments, flats, or other dwellings. Ward 8 has 56.8% fully owned or paid-off households, higher than Z F Mgcawu (44.35%) and the Northern Cape (52.99%). 36.1% of households are headed by women, higher than Z F Mgcawu (35.18%) but lower than the Northern Cape (38.51%).

Service Delivery: 98.7% of Ward 8 residents get water from a regional or local provider, compared to 78.87% in Z F Mgcawu and 85.42% in the Northern Cape. 99.7% of households have flush or chemical toilets, surpassing Z F Mgcawu (73.51%) and the Northern Cape (66.63%). Unlike Z F Mgcawu (76.93%) and the Northern Cape (69.68%), 99.2% of residents use local or private refuse disposal services.

Education: More Ward 8 residents (70.9%) have completed Grade 12 or higher than Z F Mgcawu (61.24%) and the Northern Cape (61.02%). 20.2% have secondary education, and 2.9% have primary education. 0.4% are uneducated.

Employment and Income: Ward 8 has 13.3% unemployment, lower than Z F Mgcawu (19.4%) and the Northern Cape (22.1%). Agriculture employs 45.6%, followed by trade (21.6%) and community and social services (13.9%). Ward 8's median household income is R10,313, lower than Z F Mgcawu (R12,257) and the Northern Cape (R13,057).

Infrastructure: 60.2% of Ward 8 households own cars or trucks, while 27.5% take taxis or minibuses. 2.2% of households take public buses, and 1.4% walk to work.

4.7. Baseline Findings

The information provided highlights the pressing need for the formalization of services in informal settlements within the Upington area, specifically focusing on electricity, water, and sewage/sanitation provision. Ward 8, located within the Dawid Kruiper municipality, is home to a population of 4,887 individuals who face significant challenges in accessing essential services.

The demographics reveal that while the majority of residents have access to water, toilets, and refuse disposal services, improvements are necessary to ensure consistent and reliable service delivery. Compared to the rates in Z F Mgcawu and the Northern Cape, there is a need to enhance and formalize these services within the informal settlements of Upington. This will address the existing disparities and ensure that all residents have equal access to vital amenities.

Additionally, the formalization of services in informal settlements should prioritize the provision of electricity. Access to reliable and affordable electricity is essential for various aspects of daily life, including lighting, cooking, heating/cooling, and powering electronic devices. By formalizing electricity provision, residents in informal settlements will experience improved living conditions and enhanced opportunities for economic and educational development.

Furthermore, the issue of sewage and sanitation in informal settlements requires urgent attention. Adequate sewage and sanitation systems are crucial for maintaining public health, preventing the spread of diseases, and preserving the environment. Formalizing these services will ensure the implementation of proper sewage treatment and disposal facilities, as well as the provision of clean and accessible sanitation facilities for all residents.

In conclusion, the formalization of services in informal settlements in the Upington area is of utmost importance. By focusing on improving service delivery in terms of electricity, water, and sewage/sanitation provision, the project aims to address the existing gaps and ensure that residents in informal settlements have equal access to essential services. Through these formalization efforts, the quality of life for residents will be significantly enhanced, leading to improved health, well-being, and opportunities for socio-economic advancement.

4.8. Policy Fit through Assessment of compatibility with the policy and planning framework.

Based on a thorough assessment of the national, provincial, district, and local policy and planning frameworks, it is evident that the "Formalisation of Service for Informal Settlements" project in Upington is highly compatible and well-aligned with the established guidelines and objectives.

At the national level, the project resonates with the overarching goals of the National Development Plan, which prioritizes addressing housing challenges and improving service delivery in informal settlements. The project is consistent with the national housing policies that emphasize the need for inclusive housing development and the provision of basic services to all citizens. By formalizing services, the project aligns with the national agenda of promoting sustainable and equitable urban development.

On the provincial front, the project is fully in line with the growth and development strategies outlined in the provincial plans. It adheres to the objectives set forth in the provincial housing and human settlements plans, which seek to enhance living conditions in informal settlements and ensure access to essential services. The project's focus on formalizing services aligns with the provincial government's commitment to addressing the needs of marginalized communities and promoting social inclusivity.

At the district level, within the ZF Mgcau District Municipality, the project aligns with the integrated development plan and spatial development framework. It supports the district's goals of fostering inclusive and sustainable development by addressing the housing and service delivery challenges faced by informal settlements. The project's emphasis on formalization aligns with the district's strategies to improve service provision and promote equitable access to amenities.

Within the Dawid Kruiper Local Municipality, the project is consistent with the integrated development plan and land use management plan. It aligns with the municipality's objectives and strategies related to housing, service provision, and informal settlements. The project's focus on formalizing services in informal settlements directly supports the municipality's commitment to improving living conditions and ensuring access to basic amenities for all residents.

In conclusion, the "Formalisation of Service for Informal Settlements" project in Upington demonstrates a strong compatibility with the policy and planning frameworks at all levels. It aligns with the goals, objectives, and strategies outlined in these frameworks, particularly those pertaining to housing, service delivery, informal settlements, and sustainable development. The project's emphasis on formalizing services has the potential to significantly improve the quality of life for residents in informal settlements, promote social equity, and contribute to the overall socio-economic development of the area.

5. ASSESSMENT OF KEY SOCIO-ECONOMIC ISSUES AND IMPACT

5.1. Introduction

Section 5 highlights the key social issues identified during the SIA study. The identification of social issues was based on:

- Review of project related information, including other specialist studies.
- Application of relevant legislation from a local to national level.
- Interviews and Surveys
- Experience of the authors of the area and the local conditions; and
- Experience with similar projects.

This assessment considered the following points:

- The nature, extent and significance of the features within the social landscape being considered.
- The existing disturbance already present within the social landscape

This chapter aims to identify and analyse the key socio-economic issues associated with the proposed project at various levels, including the national, provincial, district, local, and community levels. By delving into these issues, we can gain a comprehensive understanding of the social and economic challenges faced by the community and formulate appropriate strategies to address them.

The findings presented in this chapter are based on a comprehensive stakeholder engagement process, including surveys, interviews, and consultations with the community members, local authorities, and other relevant stakeholders. The information gathered from these engagements serves as a foundation for identifying the key socio-economic issues that the project must consider in its planning, implementation, and evaluation stages.

Through a careful analysis of the identified issues, this chapter will provide valuable insights into the socio-economic context of the project area, highlighting the challenges and opportunities that exist. Moreover, it will present suggestions and recommendations on how the proposed project can address these issues, thereby maximizing its positive impacts and ensuring the sustainable development of the community.

Overall, the identification of key socio-economic issues serves as a critical step in the project's socio-economic impact assessment process. It enables us to take a holistic view of the community's needs, aspirations, and constraints, guiding us in developing effective strategies and interventions that promote social equity, economic growth, and improved quality of life for the residents of the informal settlements.

Social impacts are an inherent part of any development project, and the formalization of services in informal settlements is no exception. Throughout the different phases of the project, including construction, operation, and decommissioning, social impacts are anticipated to occur. These impacts can have either positive or negative consequences for the affected communities.

During the construction phase, the project may bring about positive social impacts such as job creation and economic opportunities for local residents. However, there can also be negative impacts, such as disruptions to daily life, increased traffic, and noise pollution. It is crucial to identify and understand these social impacts to ensure effective management and mitigation measures.

Similarly, during the operational phase, the project may have positive social impacts such as improved access to essential services, enhanced living conditions, and increased community cohesion. However, negative impacts such as changes in the social fabric, gentrification, and affordability challenges may also arise. Careful consideration and planning are necessary to maximize the positive impacts and mitigate any negative consequences.

Even during the decommissioning phase, social impacts may occur. Proper closure and rehabilitation of the project site are essential to minimize any potential negative social effects and ensure a smooth transition for the community.

To address these socio-economic issues, a comprehensive understanding of the impacts and their status is necessary. Depending on whether the impacts are positive or negative, appropriate measures, such as mitigation or enhancement, can be recommended for effective impact management.

By conducting a thorough analysis of the key socio-economic issues associated with the formalization of services in informal settlements project, we can develop a comprehensive understanding of the socio-economic landscape and the specific needs of the communities involved. This knowledge will serve as the foundation for developing targeted interventions and strategies that aim to address these issues and bring about positive change.

Furthermore, it is important to emphasize that the identification of key socio-economic issues is not a static process. As the project progresses, new challenges and opportunities may emerge, requiring ongoing monitoring and assessment. Regular evaluation and adaptation of strategies will ensure that the project remains responsive to the evolving needs of the community and maximizes its positive impact.

5.2. Identification of Key Social Issues

The identification of key socio-economic issues is a crucial component of any development project, as it provides valuable insights into the challenges and needs of the community. In the context of the proposed project for the formalization of services in informal settlements, understanding the socio-economic landscape is essential to ensure that the project effectively addresses the most pressing concerns of the community.

The following key socio-economic issues were found to be relevant for the proposed project based on the desktop and literature review done:

- National Level:
 - Housing shortage and inadequate living conditions in informal settlements
 - Unequal access to basic services and amenities
 - Poverty and socio-economic disparities
 - Limited economic opportunities and income generation in informal settlements
 - Allocating sufficient resources and funding for the formalization process
 - Ensuring policy coherence and coordination between different government departments and agencies
 - Addressing the backlog of informal settlements across the country

- Provincial Level:
 - Housing affordability and availability
 - Inadequate service provision in informal settlements
 - Limited access to quality healthcare and education
 - Economic marginalization of informal settlement residents
 - Skills development and job creation in marginalized communities
 - Developing appropriate legislation and regulations to support the formalization process

- District Level:
 - Limited infrastructure and service provision in informal settlements
 - Inadequate waste management and sanitation facilities
 - Unequal access to water and electricity
 - Limited economic diversification and investment in informal settlements
 - Social exclusion and limited community development initiatives

- Local Level (Dawid Kruiper Local Municipality):
 - Informal settlements' lack of tenure security and property rights
 - Insufficient housing supply and demand for affordable housing
 - Inadequate provision of basic services, such as water, sanitation, and electricity
 - Limited access to healthcare facilities and educational institutions
 - Lack of economic opportunities and income generation in informal settlements

- Community Level (Ward 8):
 - Limited access to formalized services, including water, sanitation, and electricity
 - Inadequate housing conditions and infrastructure
 - High unemployment rates and lack of economic opportunities
 - Limited educational resources and skills development programs
 - Social cohesion and community engagement challenges

5.3. Social Impacts Associated with the Construction Phase

Most of the social impacts associated with the project are expected to occur during the development's construction phase and are typical of the types of social impacts typically associated with construction activities. These effects will be temporary and short-term (12 months), but they may have long-term consequences on the surrounding social environment if not properly planned and managed. As a result, the detailed design phase must be carried out in such a way that it does not result in long-term social impacts due to improper placement of project components or associated infrastructure, or mismanagement of construction phase activities.

The positive and negative social impacts identified and assessed for the construction phase includes:

Potential positive impacts

- Job creation
- Stimulated local economic activity through procurement of construction materials and services
- Enhanced skills development and training for local labour force
- Improved access to basic services and amenities
- Enhanced infrastructure development in informal settlements

Potential negative impacts

- Temporary inconvenience and disruption for local residents during construction
- Disruption of local businesses and informal economy during construction
- Potential displacement of residents and temporary loss of livelihoods
- Potential short-term social and economic challenges for affected resident

5.3.1. Job Creation and Enhanced Skills Development and Training for Local Labour Force

Impact description:

The directly affected communities are mostly unskilled or semi-skilled labours. The construction phase of the project has the potential to create job opportunities, which can have positive socio-economic impacts on the local community by reducing unemployment rates and enhancing income generation.

It is vital that all employment be sourced locally where possible, and where not possible (highly skilled provisions) the opportunity for skills transfer is made available.

	Rating	Motivation	Significance
<i>Prior to Enhancement</i>			
Duration	Short-term (2)	The construction period will be approximately 6 – 12 months.	Medium Positive (33)
Extent	Local (4)	The impact is local, limited to the immediate area of development.	
Magnitude	Low (5)	The creation of employment opportunities will assist to an extent in alleviating unemployment levels within the area	
Probability	Probable (3)	Construction of the project will result in the creation of a number of direct and indirect employment opportunities, which	

will assist in addressing unemployment levels within the area and aid in skills development of communities in the area

Enhancement measures:

- To enhance the local employment, skills development and business opportunities associated with the construction phase, the following measures should be implemented:
- The developers be committed to involving and benefiting the communities surrounding the development, contributing to their development and growth
- Implement local hiring preferences and support the recruitment of local residents.
- Facilitate skills development and training programs for the local workforce.
- Promote subcontracting opportunities for local businesses and suppliers
- Ensure equal access to training opportunities for underrepresented groups within the local community.

Post Enhancement

Duration	Short-term (1)	The construction period will be approximately 6 – 12 months.	Medium Positive (55)
Extent	Regional (4)	The impact is local, limited to the immediate area of development.	
Magnitude	Moderate (6)	The creation of employment opportunities will assist to an extent in alleviating unemployment levels within the area	
Probability	Definite (5)	Construction of the project will result in the creation of a number of direct and indirect employment opportunities, which will assist in addressing unemployment levels within the area and aid in skills development of communities in the area	

Residual opportunities

- Provide portable skills training to employees who express an interest in obtaining such training, with a special emphasis on employees who have been incapacitated or retrenched, in order for them to remain economically active, employable, or self-sustaining in their communities
- Growth of talent is facilitated, thereby providing opportunities for all employees to contribute to their full potential

5.3.2. Improved Access to Basic Services and Amenities as well as Enhanced Infrastructure Development in Informal Settlements

Impact description: The construction phase of the project aims to improve access to basic services and amenities and enhance infrastructure development in informal settlements, addressing the existing deficiencies and transforming the living conditions for residents. The impact of this undertaking is significant as it directly contributes to the enhancement of essential services and the overall physical environment of the informal settlements.

Improved access to basic services and amenities involves the provision of reliable and sustainable water supply, sanitation facilities, electricity, and other essential services. It aims to address the challenges faced by the residents, such as limited access to clean water, proper sanitation, and reliable electricity. By ensuring adequate and reliable service provision, the project aims to enhance the quality of life for residents, promote health and well-being, and create a more liveable and sustainable environment.

Furthermore, the project's focus on infrastructure development in informal settlements aims to improve the overall physical environment. This includes the construction and upgrading of roads, pathways, drainage systems, and communal spaces within the settlements. The infrastructure enhancements aim to create safer and more accessible

environments, improve connectivity within and outside the settlements, and promote social cohesion and community development.

The impact is relevant to the project as it aligns with the goal of formalizing services in informal settlements and addressing socio-economic challenges. By improving access to basic services and enhancing infrastructure, the project seeks to uplift the living conditions of the residents, promote social inclusion, and create opportunities for economic development.

	Rating	Motivation	Significance
<i>Prior to Enhancement</i>			
Duration	Long-term (4)	The impact will last beyond the construction phase, providing long-term improvements.	Medium Positive (48)
Extent	Local (4)	The impact is local, benefiting the immediate area or site of development.	
Magnitude	Low (4)	The impact is high, significantly enhancing access to essential services and transforming the physical environment of informal settlements.	
Probability	Probable (4)	The impact is highly probable, given the project's focus on infrastructure development.	

Enhancement measures:

- Preference is given to suppliers that are local to the operation where the service will be consumed
- Ensure that the improvements meet the actual needs of the residents.
- Collaborated with relevant stakeholders, including local authorities and service providers, to develop and implement comprehensive service improvement plans.
- Established mechanisms for ongoing maintenance and monitoring of the improved infrastructure to ensure its sustainability and functionality.
- Conducted participatory planning processes involving the affected communities in the design and layout of infrastructure, ensuring their active involvement and ownership in the development process.
- Ensured adherence to relevant building codes, regulations, and sustainability standards to promote the long-term durability and resilience of the infrastructure.
- Established mechanisms for community involvement in the maintenance and management of the developed infrastructure, fostering a sense of ownership and responsibility among the residents.

<i>Post Enhancement</i>			
Duration	Long-term (4)	The impact will last beyond the construction phase, providing long-term improvements.	High Positive (70)
Extent	Local – Regional (4)	The impact is local, benefiting the immediate area or site of development.	
Magnitude	Medium (6)	The impact is high, significantly enhancing access to essential services and transforming the physical environment of informal settlements.	
Probability	Definite (5)	The impact is highly probable, given the project's focus on infrastructure development.	

Residual opportunity

The improved access to basic services and amenities and enhanced infrastructure development in informal settlements present several residual opportunities. These include an enhanced quality of life for residents, improved health and well-being, increased community satisfaction, upgraded living environments, improved connectivity and accessibility, and the potential for community empowerment through infrastructure ownership and management.

Residual Risks

Despite the mitigation measures, some residual risks may persist. Maintenance challenges could arise, requiring ongoing efforts to ensure the continued functionality and sustainability of the infrastructure. The need for continued investment in infrastructure upkeep and resource allocation may also pose financial and resource challenges. Additionally, the increased demand for services and resources resulting from improved access and infrastructure development may require ongoing management and coordination to meet the evolving needs of the communities.

5.3.3. Temporary inconvenience and disruption for local residents, businesses and the informal economy during construction

Impact description:

The construction phase of the project aims to improve access to basic services and amenities and enhance infrastructure development in informal settlements, addressing the existing deficiencies and transforming the living conditions for residents. The impact of this undertaking is significant as it directly contributes to the enhancement of essential services and the overall physical environment of the informal settlements.

Improved access to basic services and amenities involves the provision of reliable and sustainable water supply, sanitation facilities, electricity, and other essential services. It aims to address the challenges faced by the residents, such as limited access to clean water, proper sanitation, and reliable electricity. By ensuring adequate and reliable service provision, the project aims to enhance the quality of life for residents, promote health and well-being, and create a more liveable and sustainable environment.

Furthermore, the project's focus on infrastructure development in informal settlements aims to improve the overall physical environment. This includes the construction and upgrading of roads, pathways, drainage systems, and communal spaces within the settlements. The infrastructure enhancements aim to create safer and more accessible environments, improve connectivity within and outside the settlements, and promote social cohesion and community development.

The impact is relevant to the project as it aligns with the goal of formalizing services in informal settlements and addressing socio-economic challenges. By improving access to basic services and enhancing infrastructure, the project seeks to uplift the living conditions of the residents, promote social inclusion, and create opportunities for economic development.

	Rating	Motivation	Significance
<i>Prior to Mitigation</i>			
Duration	Short-term (2)	Will be limited to the construction phase which is less than two years	Low Negative (27)
Extent	Local – Regional (3)	Local (limited to the immediate area or site of development)	
Magnitude	Moderate (4)	Moderate impact: Disruption of normal activities and routines, temporary inconvenience and challenges	
Probability	Probable (3)	Disturbances and disruptions are expected to occur during the construction phase	

Mitigation:

- Implement a comprehensive communication and stakeholder engagement strategy to inform the local community and businesses about the construction activities, anticipated disruptions, and mitigation measures in place.
- Develop a construction schedule that minimizes disruptions to the maximum extent possible, considering factors such as peak business hours, school timings, and community events.
- Implement appropriate noise and dust control measures to mitigate the impact on residents and businesses, including the use of sound barriers, dust suppression techniques, and adherence to construction best practices.
- Establish alternative access routes and transportation arrangements to ensure continued mobility and minimize disruptions to local residents and businesses.
- Provide adequate signage and clear communication about alternative routes, detours, and access points to guide residents, visitors, and customers during the construction phase.
- Regularly communicate with the local community, businesses, and the informal economy stakeholders to address concerns, gather feedback, and provide updates on the progress of the construction activities.

Post Mitigation

Duration	Short-term (2)	Will be limited to the construction phase which is less than two years	Low Negative (21)
Extent	Local (2)	Local (limited to the immediate area or site of development)	
Magnitude	Low (3)	low impact: Disruption of normal activities and routines, temporary inconvenience and challenges	
Probability	Probable (3)	Disturbances and disruptions are expected to occur during the construction phase	

Residual Risks:

- Despite the mitigation measures, some residual risks may persist. Unforeseen construction delays or disruptions beyond the control of the project may occur, impacting the duration and intensity of the inconveniences and disruptions. Communication challenges or misunderstandings with the local community and businesses may arise, leading to increased tensions or conflicts. It is crucial to monitor and address these risks proactively to minimize their potential impacts.

5.3.4. Potential displacement of residents and temporary loss of livelihoods

Impact description: The potential displacement of residents and temporary loss of livelihoods is a significant impact of the construction activities associated with the project. As construction takes place, there is a possibility that residents in the affected area may need to be temporarily relocated, leading to disruption in their daily lives and temporary loss of income. This impact is relevant to the project as it directly affects the well-being and socio-economic conditions of the local community

	Rating	Motivation	Significance
Prior to Mitigation			
Duration	Short-term (2)	Will be limited to the construction phase	Medium Negative (40)
Extent	Local (2)	Impact limited to the immediate construction site and its surrounding areas.	
Magnitude	Moderate (6)	Moderate impact on affected residents and their livelihoods, resulting in temporary displacement and economic challenges.	

Probability	Highly probable (4)	Given the nature of construction activities, there is a high likelihood of residents being temporarily displaced and experiencing loss of livelihoods.	
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Mitigation:

- Reduce the construction period
- The Contractor must ensure that damage/wear and tear caused by construction related traffic to the access roads is repaired before the completion of the construction phase
- Method of communication must be implemented whereby procedures to lodge complaints are set out for the local community to express any complaints or grievances with the construction process
- Engage in meaningful consultations and dialogues with affected residents to understand their specific needs, concerns, and preferences, and incorporate their feedback into the mitigation and relocation plans.
- Access to Job Opportunities: Facilitate access to job opportunities created by the construction project for affected residents, through targeted job training programs, preferential employment schemes, or subcontracting arrangements with local businesses.
- Monitoring and Evaluation: Continuously monitor the effectiveness of the mitigation measures and assess the well-being and progress of affected residents throughout the construction phase, making necessary adjustments to ensure their needs are met.

Post Mitigation

Duration	Short-term (2)	Will be limited to the construction phase	Low Negative (21)
Extent	Local (2)	Impact limited to the immediate construction site and its surrounding areas.	
Magnitude	Low (4)	Reduced impact on affected residents and their livelihoods, resulting in temporary displacement and economic challenges.	
Probability	Probable (3)	The likelihood of residents being temporarily displaced and experiencing loss of livelihoods is relatively short lived and contained.	

Residual Risks:

- Despite mitigation measures, there may still be residual risks associated with temporary displacement and loss of livelihoods, including challenges in the implementation of resettlement and livelihood restoration programs, potential delays in providing adequate support

5.3.5. Potential short-term social and economic challenges for affected residents such as Increased pressure on local services/resources

Impact description: During the construction phase, there will be temporary inconveniences and disruptions experienced by local residents, businesses, and the informal economy in the project area. The construction activities may cause noise, dust, traffic congestion, restricted access to certain areas, and limited parking spaces. These disruptions can affect daily routines, transportation, and the operations of local businesses, resulting in temporary economic challenges.

	Rating	Motivation	Significance
Prior to Mitigation			
Duration	Short-term (2)	Short-term impact lasting during the construction phase, which typically ranges from several months to a few years.	Medium Negative (30)
Extent	Local (2)	Will be the directly affected landowners on whose property the fire was	

Magnitude	Moderate (6)	Disruption of residents' living arrangements and potential temporary loss of income or livelihoods.	
Probability	Probable (3)	Probable: Displacement and temporary loss of livelihoods are likely to occur during the construction phase	

Mitigation:

- Provide financial assistance and support for affected households to help them transition during the relocation process.
- Facilitate capacity building and skills development programs for affected individuals to enhance their employability and income-generating opportunities.
- Explore alternative livelihood options and job creation initiatives to mitigate the temporary loss of livelihoods.
- Engage with affected residents and communities in the decision-making process and ensure their meaningful participation in the planning and implementation of the project.
- Establish a grievance redress mechanism to address concerns and disputes arising from the development.
- Temporary Service Expansion: Temporarily expand the capacity of essential services, such as healthcare facilities, schools, and public transportation, to cater to the increased population during the construction phase.
- Resource Management and Conservation: Implement measures to conserve and efficiently manage resources, such as water and energy, to minimize the strain on local supply systems. This can involve promoting water-saving practices, encouraging energy-efficient construction methods, and incorporating renewable energy sources into the project.
- Community Capacity Building: Implement community capacity building programs that focus on enhancing local skills and knowledge to manage and maintain services effectively. This can include training programs for community members in areas such as water management, waste disposal, and energy conservation, empowering them to take an active role in mitigating the increased pressure on local services.
- Monitor and evaluate the effectiveness of mitigation measures throughout the construction phase, making necessary adjustments as required.

Post Mitigation

Duration	Short-term (2)	Short-term impact lasting during the construction phase, which typically ranges from several months to a few years.	Low Negative (16)
Extent	Local (2)	Will be the directly affected landowners on whose property the fire was	
Magnitude	Low (4)	Disruption of residents' living arrangements and potential temporary loss of income or livelihoods.	
Probability	Improbable (2)	Probable: Displacement and temporary loss of livelihoods are likely to occur during the construction phase	

Residual Risks:

- Despite mitigation measures, there may still be residual risks associated with temporary disruptions, including unforeseen challenges or delays in construction, potential conflicts between construction activities and local stakeholders, and the need for ongoing monitoring and adjustment of mitigation measures to address emerging issues.

5.4. Operational phase

The operational phase marks a significant milestone in the formalization of services project in Upington. After the completion of the construction phase, the focus now shifts towards the implementation, management, and ongoing operation of the formalized services in the targeted informal settlements. This phase is crucial as it aims to ensure the sustainable delivery of essential services and amenities to the residents, fostering improved living conditions and enhancing socio-economic development in the area.

During the operational phase, the project will transition from the initial establishment of infrastructure to the active provision of services such as water supply, sanitation, electricity, and other necessary amenities. This phase involves the engagement of relevant stakeholders, including local authorities, service providers, community representatives, and residents, to ensure the smooth functioning and effective management of the formalized services.

The positive and negative social impacts identified and assessed for the construction phase includes:

Potential positive impacts

- Enhanced access to formalized services for informal settlement residents
- Improved living conditions and quality of life for affected communities
- Enhanced provision of basic services, such as water, sanitation, and electricity

Potential negative impacts

- Challenges in managing and maintaining the formalized services effectively
- Managing potential conflicts or disputes related to the allocation of formalized services

5.4.1. Enhanced access to formalized services for informal settlement residents

Impact description: The operational phase of the project aims to ensure enhanced access to formalized services for residents in informal settlements. By formalizing services such as water, sanitation, and electricity, the project seeks to improve the quality of life and promote social equity for informal settlement residents.

	Rating	Motivation	Significance
<i>Prior to Enhancement</i>			
Duration	Long-term (4)	The impact is expected to last in the long term, ensuring sustained access to formalized services.	High Positive (64)
Extent	Local (4)	The impact is local, benefiting the immediate area or site of development	
Magnitude	Low (4)	The impact is high, significantly improving access to essential services and amenities for residents.	
Probability	Probable (4)	The impact is highly probable, given the project's focus on providing formalized services.	

Enhancement measures:

- Ensure that the improvements meet the actual needs of the residents.
- Collaborated with relevant stakeholders, including local authorities and service providers, to develop and implement comprehensive service improvement plans.
- Develop clear and transparent guidelines for accessing formalized services, ensuring equal opportunities for all residents.
- Implement community awareness campaigns to educate residents about the availability and benefits of formalized services, addressing any potential information gaps.
- Strengthen partnerships with service providers to ensure reliable and continuous delivery of formalized services, addressing any potential disruptions.

- Establish grievance mechanisms to address any concerns or complaints regarding the provision of formalized services, ensuring effective resolution.
- Foster collaboration with relevant stakeholders to identify and address any gaps in service provision, ensuring inclusivity and responsiveness.

Post Enhancement			
Duration	Long-term (4)	The impact will last beyond the construction phase, providing long-term improvements.	High Positive (70)
Extent	Local – Regional (4)	The impact is local, benefiting the immediate area or site of development.	
Magnitude	Medium (6)	The impact is high, significantly enhancing access to essential services and transforming the physical environment of informal settlements.	
Probability	Definite (5)	The impact is highly probable, given the project's focus on infrastructure development.	

Residual Opportunities: The enhanced access to formalized services will lead to improved quality of life, increased social inclusion, and potential economic development opportunities for informal settlement residents. It can also empower residents to take ownership of their community's development and promote long-term sustainability.

Residual Risks: Despite the mitigation measures, challenges may arise in terms of maintenance, resource limitations, potential disruptions in service delivery due to external factors, and the need for ongoing investment in service infrastructure. Ensuring affordability and accessibility of formalized services for all residents remains crucial.

5.4.2. Improved living conditions and quality of life for affected communities

Impact description: The operational phase of the project focuses on enhancing the living conditions and overall quality of life for the communities residing in the informal areas. This impact is crucial as it directly addresses the socio-economic challenges faced by these communities, aiming to create sustainable and inclusive environments. By providing access to formalized services and improving the existing infrastructure, the project seeks to uplift the affected communities and improve their overall well-being.

During the operational phase, the project will implement various measures to improve living conditions. These measures include facilitating the provision of basic services such as water, sanitation, and electricity, ensuring that community members have access to these essential resources. Additionally, the project will focus on upgrading infrastructure in the informal areas, such as road networks, community spaces, and recreational facilities, creating a more conducive environment for the residents.

The significance of this impact is high, as it has the potential to bring about significant positive changes in the lives of the affected communities. Improved living conditions can lead to enhanced health and well-being, increased safety and security, and improved social cohesion within the communities. The impact is considered direct, as the project directly contributes to improving the living conditions and quality of life for the residents.

By implementing enhancement measures, the project aims to maximize the positive outcomes and minimize any potential negative impacts. Community development programs will be initiated to address social challenges and promote community cohesion. Training and capacity-building programs will empower community members by enhancing their skills and providing them with opportunities for personal and professional growth. Collaboration with relevant stakeholders, including local authorities and service providers, will ensure access to education and healthcare services, further enhancing the overall well-being of the communities.

	Rating	Motivation	Significance
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<i>Prior to Enhancement</i>			
Duration	Long-term (4)	The impact will have a lasting effect beyond the operational phase, providing long-term improvements	Medium Positive (48)
Extent	Local (4)	The impact is local, benefiting the immediate area or site of development.	
Magnitude	Low (4)	The impact is significant, leading to a notable enhancement in living conditions and quality of life for the affected communities.	
Probability	Probable (4)	The impact is highly probable, given the focus of the project on improving living conditions and quality of life.	

Enhancement measures:

- Implement community development programs to address social challenges and promote community cohesion.
- Provide training and capacity-building programs to enhance skills and empower community members.
- Collaborate with relevant stakeholders to ensure access to education and healthcare services, promoting overall well-being.
- Facilitate the development of community-led initiatives for sustainable livelihoods and income generation opportunities.
- Establish mechanisms for community participation and engagement in decision-making processes, ensuring inclusivity and ownership.
- Monitor and evaluate the impact of interventions on living conditions and quality of life, continuously improving strategies and addressing emerging needs.
- Improve relations with the community.

<i>Post Enhancement</i>			
Duration	Long-term (4)	The impact will last beyond the construction phase, providing long-term improvements.	High Positive (85)
Extent	Local – Regional (4)	The impact is local, benefiting the immediate area or site of development.	
Magnitude	High (9)	The impact is high, significantly enhancing access to essential services and transforming the physical environment of informal settlements.	
Probability	Definite (5)	The impact is highly probable, given the project's focus on infrastructure development.	

Residual Opportunities: The improved living conditions and enhanced quality of life will result in increased social cohesion, better health outcomes, access to education and economic opportunities, and a sense of pride and ownership within the affected communities. It can lead to long-term sustainable development and positive social transformation.

Residual Risks: Despite the mitigation measures, challenges may arise in terms of maintenance, social disparities, and the need for ongoing support and investment in community development. Continuous monitoring and collaboration with stakeholders are essential to address any emerging risks and sustain the improvements achieved.

5.4.3. Enhanced provision of basic services, such as water, sanitation, and electricity

Impact description: The operational phase of the formalization of services in informal areas project aims to enhance the provision of basic services, such as water, sanitation, and electricity, to the residents of informal settlements. This impact is directly related to improving the quality of life and living conditions for the affected communities. Access to reliable and sustainable basic services is crucial for promoting health, hygiene, and overall well-being.

By implementing effective operational strategies, the project seeks to ensure that the enhanced provision of basic services is sustained over the long term. This includes establishing robust maintenance and monitoring systems to address any issues or disruptions promptly. The project will actively engage with the community to understand their specific needs and preferences regarding water, sanitation, and electricity, ensuring that the services provided are tailored to their requirements.

Collaboration with relevant stakeholders, including government agencies and service providers, will be essential for the successful implementation of the project. Coordinated efforts will ensure efficient service delivery and address any potential challenges or gaps in the provision of basic services. The project will also invest in capacity building and training programs to empower local community members to actively participate in the management and maintenance of the basic service infrastructure, fostering a sense of ownership and sustainability.

	Rating	Motivation	Significance
<i>Prior to Enhancement</i>			
Duration	Long-term (4)	The impact will extend beyond the implementation phase, providing sustained benefits and improved services in the long term.	Medium Positive (60)
Extent	Local (4)	The impact is localized to the immediate area or site of development, bringing significant improvements to the targeted communities.	
Magnitude	High (7)	The impact is substantial, significantly enhancing access to essential services and positively transforming the living conditions of informal settlement residents.	
Probability	Probable (4)	The impact is highly probable, given the project's focus on improving basic service provision.	

Enhancement measures:

- Conduct regular community engagement and feedback sessions to address specific needs and preferences of residents regarding basic services.
- Establish partnerships with local service providers and relevant stakeholders to ensure effective coordination and collaboration in service provision.
- Foster community ownership and responsibility through participatory approaches and involvement in decision-making processes.
- Invest in innovative technologies and sustainable practices to optimize the efficiency and effectiveness of basic service provision

<i>Post Enhancement</i>			
Duration	Long-term (4)	The impact will extend beyond the implementation phase, providing sustained benefits and improved services in the long term.	High Positive (85)

Extent	Local (4)	The impact is localized to the immediate area or site of development, bringing significant improvements to the targeted communities.	
Magnitude	High (9)	The impact is substantial, significantly enhancing access to essential services and positively transforming the living conditions of informal settlement residents.	
Probability	Probable (5)	The impact is highly probable, given the project's focus on improving basic service provision.	

Residual Opportunities: Improved health and well-being, enhanced quality of life, increased productivity and economic opportunities, strengthened community cohesion and empowerment.

Residual Risks: Ongoing funding and resource requirements, potential challenges in managing increased demand, adaptation to evolving service needs and expectations.

5.4.4. Challenges in managing and maintaining the formalized services effectively

Impact description: The operational phase of the formalization of services in informal areas project brings forth challenges in managing and maintaining the formalized services effectively. While the impact is indirect, it is crucial to address these challenges to ensure the sustainable operation and functionality of the formalized services in informal settlements.

The significance of this impact is reflected in its influence on the decision-making process and the need for effective mitigation measures. Given the localized nature of the impact and its expected duration throughout the operational phase, it is important to develop comprehensive operational and maintenance plans to address the identified challenges.

The successful management and maintenance of the formalized services will contribute to the overall positive impact of the project by providing reliable and well-maintained services to the community. Through ongoing efforts, collaboration, and adaptability, the project aims to overcome the challenges and ensure that the formalized services continue to meet the needs of the informal settlement residents, ultimately enhancing their quality of life and well-being.

	Rating	Motivation	Significance
<i>Prior to Mitigation</i>			
Duration	Long-term (4)	The impact is expected to persist throughout the operational phase, requiring ongoing efforts to address the identified challenges.	Medium Negative (56)
Extent	Local (3)	The impact is localized to the operational phase, requiring specific attention to ensure efficient management and maintenance of the formalized services.	
Magnitude	Moderate (7)	The impact is moderate, as it presents challenges that may require adaptations in strategies and approaches for effective service management and maintenance.	
Probability	Probable (4)	The impact is highly probable, given the inherent complexities of managing and	

maintaining services in informal settlements.

Mitigation:

- Develop comprehensive operational and maintenance plans, outlining specific responsibilities and strategies for managing formalized services.
- Establish clear communication channels with the community to address service-related concerns, gather feedback, and ensure effective problem-solving.
- Conduct regular inspections and assessments to identify potential issues or maintenance requirements proactively.
- Provide training and capacity building to local stakeholders and service providers, enabling them to carry out effective service management and maintenance.
- Develop a comprehensive maintenance schedule, including regular inspections, repairs, and replacements, to ensure the ongoing functionality of infrastructure and services.
- Develop contingency plans and emergency response protocols to address unexpected events or service disruptions, minimizing their impact on the community.
- Ensure the availability of adequate funding and resources for long-term maintenance and operation of the formalized services.
- Conduct periodic reviews and assessments of the maintenance strategies and adjust them as necessary to address emerging challenges or changing community needs.

Post Mitigation

Duration	Long-term (4)	The impact is expected to persist throughout the operational phase, requiring ongoing efforts to address the identified challenges.	Moderate Negative (36)
Extent	Local (3)	The impact is localized to the operational phase, requiring specific attention to ensure efficient management and maintenance of the formalized services.	
Magnitude	Moderate (5)	The impact is moderate, as it presents challenges that may require adaptations in strategies and approaches for effective service management and maintenance.	
Probability	Probable (3)	The impact is highly probable, given the inherent complexities of managing and maintaining services in informal settlements.	

Residual Risks:

- Ongoing operational and maintenance demands, potential resource constraints, adaptability to evolving community needs and expectations.

5.4.5. Managing potential conflicts or disputes related to the allocation of formalized services

Impact description: During the operational phase, challenges may arise in managing and maintaining the formalized services effectively. One of these challenges is the potential for conflicts or disputes related to the allocation of these services. Such conflicts can arise due to varying expectations, resource limitations, or perceived inequities in service distribution. If not addressed, these conflicts can have a negative impact on community cohesion, trust, and overall satisfaction with the formalized services.

	Rating	Motivation	Significance
<i>Prior to Mitigation</i>			

Duration	Medium term (3)	Conflicts can persist in the long term if not addressed.	Medium Negative (48)
Extent	Local (3)	The impact may be local or limited to specific areas.	
Magnitude	Moderate (6)	The impact can disrupt community cohesion and harmony.	
Probability	Probable (4)	The likelihood of conflicts arising is distinct.	

Mitigation:

- Develop transparent and inclusive processes for the allocation of formalized services, ensuring fairness and equal opportunities for all residents.
- Facilitate community dialogues and engagement sessions to address concerns, clarify expectations, and foster understanding among community members.
- Establish a grievance and dispute resolution mechanism that allows residents to express their concerns and seek mediation or resolution of conflicts.
- Implement effective communication strategies to ensure clear and consistent information dissemination regarding service allocation processes and decisions.
- Provide regular updates and feedback to the community on service allocation progress and outcomes, enhancing transparency and accountability.
- Establish a dedicated team or committee responsible for addressing and managing conflicts or disputes related to service allocation.
- Regularly evaluate and review the service allocation processes and mechanisms, making necessary adjustments based on feedback and lessons learned
- Build better relationships with the community and ensure provision of service is a continued goal for the municipality.

Post Mitigation

Duration	Medium term (3)	Conflicts can persist in the long term if not addressed.	Low Negative (24)
Extent	Local (2)	The impact may be local or limited to specific areas..	
Magnitude	Low (3)	The impact can disrupt community cohesion and harmony.	
Probability	Likely (3)	The likelihood of conflicts.	

Residual Risks:

- Lingering conflicts and disputes that may require ongoing management and resolution efforts.
- Potential strain on resources and capacity to address conflicts, particularly in cases where there is high demand for limited resources.
- Difficulty in achieving complete consensus among community members, leading to ongoing tensions and disagreements.
- The possibility of conflicts escalating and affecting broader community dynamics if not effectively managed and resolved.

5.5. Social Issues Associated with the No-Development Option

The “no-go” alternative is the option of not constructing the project. The implementation of the proposed project is expected to result in several positive and negative social impacts. Most negative impacts identified for the project are associated with the construction phase of the project, while the positive impacts are associated with both the construction and operation phases of the project.

Positive impacts of not pursuing the service provision to informal settlement project:

- Preserves the existing status quo in the informal settlements.

- Avoids potential disruptions and inconveniences during the construction phase.
- No financial investment required for the project implementation.
- No need for resource allocation and management for the project.
- Maintains the current social dynamics and community structures.

Negative impacts of not pursuing the service provision to informal settlement project:

- Continued inadequate access to basic services and amenities for residents.
- Persistent living conditions in informal settlements, including limited access to water, sanitation, and electricity.
- Lack of infrastructure development and improvements in the informal settlements.
- Sustained economic marginalization of the residents, with limited job opportunities and income generation.
- Perpetuation of socio-economic disparities and inequalities.
- Potential health and safety risks due to inadequate services and infrastructure.
- Limited opportunities for skills development and training for the local labor force.
- Lack of progress in addressing the housing shortage and inadequate living conditions in the informal settlements

The "no-go" alternative, which involves not pursuing the service provision to informal settlement project, would have its own set of impacts. While the impacts may differ from those associated with the project itself, it is important to consider the potential consequences of not implementing the proposed initiative.

The identified impacts of the "no-go" alternative highlight several factors. The lack of service provision to informal settlements would perpetuate existing socio-economic challenges, such as inadequate living conditions, limited access to basic services, and a lack of economic opportunities. This would further contribute to the housing shortage, socio-economic disparities, and high unemployment rates experienced in these settlements.

Negative impacts of not pursuing the project also include the continuation of social exclusion, limited community development initiatives, and the persistence of informal structures and unregulated practices. These factors can contribute to ongoing challenges in terms of health, safety, and quality of life for residents.

Conversely, the positive impacts associated with the "no-go" alternative are relatively limited. It may lead to the avoidance of short-term inconvenience and disruption during the construction phase, but this would come at the cost of long-term improvements and potential benefits that the project could bring.

In conclusion, the "no-go" alternative would perpetuate existing socio-economic issues in the informal settlements and hinder opportunities for improvement and development. The project offers a chance to address these challenges, enhance living conditions, and create positive socio-economic impacts. Therefore, the pursuit of the service provision project is essential in addressing the needs and aspirations of the communities in the informal settlements.

5.6. Social Issues Associated with the Cumulative Impact on Sense of Place

The cumulative impact of the service delivery project encompasses both positive and negative effects on the socio-economic landscape of the area. These impacts are expected to occur over an extended duration, with a moderate to high magnitude, and a probable likelihood of occurrence.

Positive Cumulative Socio-Economic Impacts:

- **Economic Growth:** The project can contribute to sustained economic growth through job creation, increased business activity, and revenue generation.
- **Infrastructure Development:** Over time, the project can lead to improved infrastructure, including transportation networks, utilities, and community facilities, enhancing access to services.
- **Enhanced Local Services:** The cumulative impacts can result in upgraded healthcare facilities, educational institutions, recreational spaces, and public amenities, improving the quality of life for the community.

Negative Cumulative Socio-Economic Impacts:

- **Increased Demand on Resources:** The cumulative effects can strain local resources, such as water, energy, and land, requiring efficient management to prevent scarcity or environmental degradation.
- **Social Displacement:** As the project progresses, there may be social disruptions and challenges, including housing pressures and potential displacement of vulnerable populations.
- **Inequality and Gentrification:** There is a risk of socio-economic inequalities and gentrification, necessitating measures to ensure equitable distribution of project benefits.
- **Environmental Degradation:** Cumulative impacts can contribute to habitat loss, pollution, and resource depletion, requiring environmental management strategies to mitigate negative consequences.

Mitigation/Enhancement Measures:

- Implement comprehensive environmental management practices to minimize and mitigate environmental degradation.
- Develop and enforce equitable policies and mechanisms to ensure fair distribution of project benefits and prevent socio-economic disparities.
- Engage in ongoing community consultation and participation to address social issues, including potential displacement and social disruptions.
- Foster sustainable resource management practices to address increased demand and minimize resource scarcity.
- Promote social inclusion and community empowerment through capacity-building programs and initiatives.
- Monitor and evaluate the cumulative impacts regularly, making necessary adjustments to mitigation strategies as needed.

The cumulative impact of the service delivery project on the socio-economic landscape of the area reflects a combination of positive and negative effects. Over an extended duration, with a moderate to high magnitude, and a probable likelihood of occurrence, these impacts shape the long-term socio-economic outcomes of the project.

On the positive side, the cumulative impacts contribute to economic growth by creating job opportunities, stimulating business activity, and generating revenue. The project also leads to infrastructure development, enhancing networks, utilities, and community engagement, thereby improving access to services. Furthermore, the cumulative effects result in upgraded local services, and ultimately improving the quality of life for the community.

However, the cumulative impacts also pose challenges that need to be addressed. Increased demand on resources, including water, energy, and land, necessitates efficient management to prevent scarcity and environmental degradation. Potential gentrification can disrupt communities, requiring proactive measures to ensure equitable distribution of project benefits and mitigate socio-economic disparities.

To address these challenges and maximize the positive impacts, mitigation and enhancement measures are crucial. Implementing comprehensive environmental management practices, fostering social inclusion, and promoting sustainable resource management are key strategies. Engaging in ongoing community consultation and monitoring the cumulative impacts enable timely adjustments to mitigation strategies.

By proactively addressing the challenges and implementing appropriate mitigation measures, the project can achieve sustainable socio-economic development, enhance the well-being of the community, and ensure the long-term resilience of the area

6. CONCLUSIONS AND IMPACT STATEMENT

6.1. Key findings

From a social perspective it is concluded that the project is supported, but that mitigation measures should be implemented and adhered to. Positive and negative social impacts have been identified. The assessment of the key issues indicated that there are **no negative impacts that can be classified as fatal flaws**, and which are of such significance that it cannot be successfully mitigated. Positive impacts could be enhanced by implementing appropriate enhancement measures and through careful planning.

Based on the social assessment, the following general conclusions and findings can be made:

- The formalization of services in informal settlements in the Upington area is a critical step in addressing the socio-economic challenges faced by residents. The assessment identified key issues such as inadequate access to water, electricity, sanitation, and safety concerns. By formalizing these services, the project aims to improve living conditions, enhance safety, and provide equal opportunities for all residents.
- The proposed development aligns with the national, provincial, and local policy frameworks, emphasizing the importance of inclusive housing development, improved service delivery, and sustainable urban development. It supports the goals outlined in the National Development Plan and various housing policies, which prioritize the provision of basic services and the enhancement of living conditions in informal settlements.
- The formalization of services in informal settlements will have positive socio-economic impacts. Job creation is expected during the construction phase, stimulating local economic activity through the procurement of construction materials and services. It also offers opportunities for skills development and training for the local labor force, contributing to improved employment prospects and income generation. The project will result in enhanced access to basic services and amenities, improving the standard of living and quality of life for affected communities.
- Affordability is a crucial consideration in the project. The assessment revealed concerns about the affordability of the proposed development for low-income households. It is imperative to ensure that the formalized services remain accessible and affordable, taking into account the socio-economic status of the target population. This may involve exploring subsidy programs or innovative financing models to support affordability and prevent exclusion of vulnerable households.
- The stakeholder engagement process played a vital role in shaping the project. Community members and other stakeholders provided valuable insights and feedback, highlighting the importance of basic services, job opportunities, and addressing major social issues. The overwhelming support for the proposed development underscores the recognition of its potential benefits in improving the socio-economic well-being of the community.
- Mitigation measures are necessary to address potential negative impacts associated with the construction and operational phases. Temporary inconveniences and disruptions during construction should be minimized through effective project management and communication. Challenges in managing and maintaining the formalized services effectively require the implementation of efficient management practices, ongoing monitoring, and community engagement. Measures should also be in place to manage and resolve potential conflicts or disputes related to the allocation of formalized services.
- The cumulative impacts of the project can contribute to sustained economic growth, improved infrastructure development, and enhanced local services. Economic growth will be driven by job creation, increased business activity, and revenue generation. Infrastructure development will result in improved transportation networks, utilities, and community facilities, enhancing access to services.
- However, the cumulative impacts also present challenges that need to be addressed. The increased demand on resources, including water, energy, and land, must be managed efficiently to prevent scarcity and environmental degradation. Measures should be in place to minimize social displacement and avoid exacerbating socio-economic inequalities. Environmental degradation, including habitat loss, pollution, and resource depletion, must be mitigated through robust environmental management strategies.
- By considering diverse viewpoints and suggestions, the final Socio-Economic Impact Assessment (SIA) will provide a comprehensive analysis of potential socio-economic impacts. This will ensure that decision-makers

have a complete understanding of the project's implications, enabling them to make informed decisions that maximize benefits and minimize adverse effects.

The formalization of services in informal settlements in the Uppington area is a crucial step in addressing socio-economic challenges, enhancing quality of life, promoting equitable development, and creating sustainable opportunities for the community. By considering affordability, implementing mitigation measures, and engaging stakeholders, the project can maximize its positive impacts while minimizing any negative consequences. The project's alignment with policy frameworks and its potential to contribute to sustained economic growth, improved infrastructure, and enhanced local services make it a promising endeavour for the socio-economic development of the area.

6.2. Recommendations

The following recommendations are made based on the Socio-economic Impact Assessment and a thorough review of the concerns and suggestions raised by stakeholders and interested and affected parties during the stakeholder engagement process. The proposed mitigation measures should be implemented to limit the negative impacts and enhance the positive impacts.

Based on the social assessment, the following recommendations are made:

- **Enhance Affordability:**
 - a) Ensure that the formalized services remain accessible and affordable for low-income households. Consider the socio-economic status and income levels of the target population when determining service fees and charges.
 - b) Explore subsidy programs, innovative financing models, and partnerships with financial institutions to support affordability and assist low-income households in accessing the formalized services.
- **Job Creation and Skills Development:**
 - a) Maximize local employment opportunities during the construction phase by prioritizing the hiring of local residents and businesses. Collaborate with local job placement agencies, training institutions, and community organizations to facilitate skills development and training programs that align with the needs of the project and local labour market.
 - b) Establish long-term job creation initiatives in the operation and maintenance of the formalized services, providing sustainable employment opportunities for community members. Offer training and capacity-building programs to enhance the skills and employability of local residents in service provision and maintenance roles.
- **Community Engagement and Social Development:**
 - a) Establish an ongoing community engagement platform to foster open communication, address concerns, and gather feedback throughout the project's lifecycle. Regularly update the community on project progress, timelines, and anticipated impacts.
 - b) Develop and implement social development programs that address the identified social issues, such as unemployment and drug-related concerns. Collaborate with local organizations, social workers, and healthcare professionals to provide counselling services, rehabilitation programs, and community support initiatives.
- **Environmental Management and Resource Efficiency:**
 - a) Implement comprehensive environmental management practices to minimize the project's environmental footprint and mitigate potential negative impacts. This includes proper waste management, pollution control measures, and adherence to environmental regulations.
 - b) Adopt resource-efficient technologies and practices to minimize the project's demand on water, energy, and land resources. Emphasize the use of renewable energy sources, water-saving measures, and sustainable land use practices in the design and operation of the formalized services.

- Collaboration and Partnerships:
 - a) Foster collaboration and partnerships with relevant stakeholders, including non-governmental organizations, private sector entities, and community-based organizations. Leverage their expertise, resources, and networks to enhance the project's implementation and ensure long-term sustainability.
 - b) Sustain the stakeholder engagement process throughout the project's lifecycle. Regularly communicate with stakeholders, provide updates, and address any concerns or issues that may arise.

These recommendations aim to guide the formalization of services in informal settlements in the Uppington area, addressing concerns, maximizing benefits, and ensuring sustainable socio-economic development. By implementing these measures, the project can enhance affordability, create job opportunities, engage the community, manage environmental impacts, and establish effective monitoring and evaluation mechanisms. Through collaboration and ongoing stakeholder engagement, the project can achieve its objectives while promoting social inclusion, economic growth, and improved quality of life for residents in informal settlements.

By incorporating additional recommendations, the project can further enhance the positive socio-economic impacts, address local employment concerns, mitigate negative impacts, and ensure sustainable development practices are implemented. The involvement of local labor and businesses, careful mitigation of construction-related impacts, attention to safety and security, and consideration of specialist findings will contribute to the overall success and acceptance of the project within the community.

6.3. Conclusion

During the Assessment Phase of the Socio-Economic Impact Assessment (SIA), a comprehensive site visit was conducted to gather valuable insights and engage with key stakeholders and interested and affected parties. The site visit involved conducting semi-structured interviews to ensure a systematic and informative exchange of information.

The primary objective of the site visit was to provide stakeholders with a clear understanding of the proposed development, including its location, scope, and planned activities during both the construction and operational phases. To facilitate effective communication, visual aids such as maps and diagrams were utilized to illustrate the project's spatial aspects and provide stakeholders with a tangible representation of the planned development.

Through the semi-structured interviews, key stakeholders had the opportunity to express their opinions, concerns, and perceptions regarding the project's social impacts. The discussions during the site visit aimed to capture a broad range of perspectives and ensure that stakeholders' voices were heard and considered in the assessment process.

The feedback received from the site visit/interviews plays a crucial role in informing the analysis of the project's social impacts. By incorporating stakeholder perceptions and concerns, the assessment can provide a comprehensive understanding of the potential positive and negative socio-economic effects associated with the proposed development.

Through a rigorous review of policies, stakeholder engagement processes, and data analysis, this assessment has identified key socio-economic issues at various levels and examined the positive and negative impacts during the construction and operational phases.

At the district and local levels, the assessment identified challenges related to infrastructure, basic service provision, economic opportunities, and community development. These findings highlight the importance of coordination, capacity building, and effective implementation at the local level. By engaging with local municipalities, addressing land tenure issues, and ensuring transparency and accountability, the project can promote sustainable development and enhance the quality of life in the target communities.

The assessment also acknowledged the significance of enhanced access to basic services, amenities, and infrastructure development in informal settlements. These positive impacts can lead to improved living conditions,

increased social inclusion, and enhanced community development. However, it is crucial to address potential challenges such as temporary inconveniences, disruptions to local businesses, and the risk of short-term social and economic challenges for affected residents. By implementing mitigation measures, such as effective project scheduling, stakeholder engagement, and support mechanisms, these negative impacts can be minimized.

The findings of this assessment underscore the importance of stakeholder engagement, transparency, and coordination among relevant government departments and agencies. The involvement of stakeholders throughout the assessment process has ensured that diverse perspectives, concerns, and aspirations have been considered. Mitigation and enhancement measures specific to the project have been identified to address the identified impacts and maximize the project's positive outcomes.

The socio-economic impact assessment has provided a comprehensive understanding of the potential social and economic effects associated with the formalization of services in informal settlements project. By identifying key issues, assessing impacts, and recommending mitigation measures, the assessment serves as a valuable tool for decision-making, policy development, and project implementation. The project, when effectively executed with the incorporation of mitigation measures, has the potential to address socio-economic disparities, enhance quality of life, and promote sustainable development in the target communities.

The proposed project is unlikely to result in permanent damaging social impacts. From a social perspective it is concluded that the project is acceptable subject to the implementation of the recommended mitigation and enhancement measures and management actions identified for the project. Considering the findings of the report and the potential for mitigation and management of impacts, it is the reasoned opinion of the specialist that the project can be authorised.

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Appendix A – Stakeholder Database

Appendix B – The Completed Surveys