

SOCIAL IMPACT ASSESSMENT

AS PART OF THE

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

JANUARY 2018



Contact

FOR THE

PROPOSED AQUACULTURE DEVELOPMENT ZONE IN AMATIKULU, KWAZULU NATAL

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EXPERIENCE RECORD

This report was compiled by Mr Siphon Gama of KWENZE MANJE Consulting Project Management. Mr Siphon Gama holds a Bachelor of Arts Degree from the University of South Africa and is a social impact assessment specialist with over 3 years experience in this field. A specialist in the assessment of potential social impacts, which includes the collection and analysis of data and superimposing a proposed project on a baseline social profile to determine the potential social impacts from which mitigation measures can be developed. With a total of over 10 years experience in the social development field, of which the majority were spent as a Social Facilitator and Public Participation Consultant

DECLARATION OF INDEPENDENCE

The EIA regulations states, amongst other, that an independent consultant must be appointed to act on behalf of the client and to ensure that the public participation process is managed properly. In this regard KWENZE MANJE Consulting Project Management submits that it has:

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

EXECUTIVE SUMMARY

The Department has recently (2009) completed a project aimed at identifying suitable land and sea space surrounding South Africa's coastal provinces for the establishment of Aquaculture Development Zones (ADZ's). An ADZ is an area that has been earmarked specifically for aquaculture activity. The purpose of an ADZ is to encourage investor and consumer confidence, create incentives for industry development, provide marine aquaculture services, manage risk associated with aquaculture, as well as to provide skills development and employment for coastal communities. The development of ADZs supports the Marine Aquaculture Policy objective aimed at creating an enabling environment that will promote growth and sustainability of the marine aquaculture sector in South Africa, as well as to enhance the industry's contribution to economic growth.

This report details the results of the Social Impact Assessment (SIA) specialist study undertaken by KWENZE MANJE Consulting Project Management as part of the overall Environmental Impact Assessment (EIA) process undertaken by NULEAF Planning and Environmental. The SIA documented in this report builds on the Basic Social Assessment Report (BSAR) compiled as part of the Scoping Phase of the EIA process.

The definition of a SIA as defined by Vanclay (2002) gives an understanding of the backdrop against which this SIA was conducted. According to this definition, a social impact assessment is "the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programmes, plans and projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment."

In order to do a theoretically sound analysis of social impacts with high levels of confidence, a thorough baseline assessment and projection is therefore necessary. The social team made a clear distinction between change processes and impacts. Social impacts refer to the impacts that are actually experienced by humans on physical and/or cognitive level. An impact variable is a change process and leads to impacts, e.g. an increase in population or the presence of strangers are not regarded as impacts, but rather change processes that lead to impacts such as a change in the perception about the nature of the community.

The following change processes have been identified and discussed in this report:

- **Geographical processes:** land use patterns;
- **Demographic processes:** the number and composition of people;
- **Economic processes:** the way in which people make a living and the economic activities in society;

- ***Institutional and Empowerment processes:*** the ability of people to be involved and influence decision making processes; and the role, efficiency and operation of governments and other organisations; and
- ***Socio-cultural processes:*** the way in which humans behave, interact and relate to each other and their environment and the belief and value systems which guide these interactions.

Geographical Processes

Geographical processes relate to land use patterns and infrastructure in the area. This section therefore describes the land use in the study area from a social perspective, specifically in terms of settlement patterns and land use developments.

According to the Mandeni IDP, Agricultural farming system in Mandeni is more focus on a traditional and semi-intensive farming system. Commodity produced in the area mainly is sugarcane at the commercial and small scale, also timber plantations both in the private and individual lands. Both enterprise commodities dominates 38% (60 250 ha) of 158 553 hectares according to the BRU database.

Geographical change processes refer to land use change as a result of the actual or perceived changes in land use, whether it be on a temporary or permanent basis. The proposed Aquaculture Development Zone in Amatikulu and the construction and operation of the proposed Aquaculture Development Zone might lead to a change in the land use within the local area. The assessment of a land use change process from a social perspective takes into account how the Aquaculture Development Zone might affect the behaviour/lives of land owners and/or land users.

The following geographical change process is expected:

- Land acquisition and disposal, including availability of land.

Demographical Processes

Demographic processes relate to the number of people and composition of a community and include an overview of the population size and the educational profile of the affected communities.

The Mandeni covers an area of approximately 54 548km² and in 2011 had a total population of 138078 people.

An overview of the educational profile for the Mandeni Local Municipality, reveals that, the level of education has generally improved in the municipal area. The number of people with no schooling declined from 19.2% to 10.1% between 2001 and 2011. Matric level increased from 22.3% to 30.6%,

whereas, primary educational enrolment in to 90.9% from 89.3% in the same period. Overall it would appear as if the area is characterised by a semi-skilled to skilled population.

The construction and maintenance of the proposed Aquaculture Development Zone, could lead to a temporary change in the number and composition of the population within the affected local area, which in turn could lead to economic, land use, and sociocultural change processes. The following demographical change processes are expected:

- Population change; and
- In-migration of unemployed work seekers.

Economical Processes

Economic processes relate to the way in which people make a living and the economic activities within that society. The employment status within any given area gives an indication of the economic stability of such an area and also serves as an indicator of such an area's general well-being.

The study area is characterised by a declining unemployment rate of Mandeni from 45.1% in 2001 to 28.6% in 2011, despite lower unemployment rate amongst the youth in the municipal area, the 34.6% of the youth that is unemployed is still substantial.

Economic change processes relate to the changes brought about to the employment and general economic profile of an area as a result of the introduction of any development. For example, job opportunities might be created as a result of the construction and maintenance of the proposed Aquaculture Development Zone. Employment creates a source of income, which in turn enables the employed individual to access services and a support mechanism for his/her family. The following economical change processes are expected:

- Enhanced/reinforced economic equities;
- Change in employment equity of vulnerable groups; and
- Change in occupational opportunities

Institutional and Empowerment Processes

Institutional and Empowerment processes relate to the role, efficiency and operation of government sectors and other organisations within the area in terms of service delivery.

It also investigates the ability of people to engage in decision-making processes to such an extent that they have an impact on the way in which decisions are made that would concern them. It would appear that, in general within the Mandeni Local Municipality, municipal services are sufficient and

that the municipal network would be able to sustain additional connections to the electricity and water network. Sanitation services appears to be at a vulnerable stage, which means that it can easily be overloaded.

Institutional and Empowerment Change Processes relate to way in which the proposed project might change the face of service delivery in the area and how this change might affect the quality of life of local residents. It furthermore assesses local residents' ability to negotiate such changes in a way that is mutually beneficial to both the project proponent as well as the affected landowners. The following institutional and empowerment change processes are expected:

- Change in community infrastructure; and
- Change in housing needs/demands (temporary).

Socio-Cultural Processes

Socio-cultural processes relate to the way in which humans behave, interact and relate to each other and their environment, as well as the belief and value systems which guide these interactions.

Socio-cultural change processes that are associated with the construction and operation of the proposed project include changes such as health and safety aspects and sense of place. The concept of 'health' is not only limited to physical health (i.e. the absence of ailments or illness), but also includes mental and social health. The following sociocultural change processes are expected:

- Dissimilarity in social practices;
- Alteration in family structure;
- Conflict;
- Safety and crime impacts; and
- A potential change in sense of place.

Conclusions

The area is already characterised by infrastructure of a similar nature, i.e. the existing remnants of a prawn farm and current operations and activities onsite. It is therefore, at this stage, not foreseen that the proposed Aquaculture Development Zone would yield significant negative impacts to the surrounding social environment. Therefore, no issues emerged that can be considered as fatal flaws and at this stage there are also not areas of great concern.

INTRODUCTION

The Department has recently (2009) completed a project aimed at identifying suitable land and sea space surrounding South Africa's coastal provinces for the establishment of Aquaculture Development Zones (ADZ's). An ADZ is an area that has been earmarked specifically for aquaculture activity. The purpose of an ADZ is to encourage investor and consumer confidence, create incentives for industry development, provide marine aquaculture services, manage risk associated with aquaculture, as well as to provide skills development and employment for coastal communities. The development of ADZs supports the Marine Aquaculture Policy objective aimed at creating an enabling environment that will promote growth and sustainability of the marine aquaculture sector in South Africa, as well as to enhance the industry's contribution to economic growth.

Key Definitions

The definition of a SIA as defined by Vanclay (2002) gives an understanding of the backdrop against which this SIA was conducted. According to this definition, a **Social Impact Assessment** is "the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programmes, plans and projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment."

According to Van Schooten, Vanclay and Sloomweg (2003:78-79), "**Social Change Processes** are set in motion by project activities or policies. They take place independently of the social context. Resettlement, for example, is a **social change process**, set in motion by, inter alia, the activity of land clearing... **social change processes** can lead to several other processes. Depending on the characteristics of the local social setting and mitigation process that are put in place, **social change process** can lead to **social impacts**." Furthermore, "The way in which the **social change processes** are perceived, given meaning or value depend on the social context in which various societal groups act. Some sectors of society, or groups in society, are able to adapt quickly and exploit the opportunities of a new situation. Others (for example, various vulnerable groups) are less able to adapt and will bear most of the negative consequences of change. **Social impacts**, therefore, are implicitly context-dependent."

Objectives of the Study

The overall business objective of the SIA is to assess the probable social impacts on the human environment as a result of project implementation. The proposed construction and operation of the Aquaculture Development Zone as detailed above will be considered within the EIA studies. In this instance, the EIA process consists of three phases, namely:

- Environmental Scoping Study (current phase);
- Environmental Impact Assessment; and
- Environmental Management Plan.

A number of secondary objectives have been derived from the overall business objective and includes the following:

- Gain an understanding of the proposed project, including the nature and timeframe of the proposed activities;
- Assess the affected local area (settlements and institutions) in terms of:
 - **Geographic Processes:** the land use pattern within the (affected) area;
 - **Demographic Processes:** the number and composition of the local population;
 - **Economic Processes:** the way in which people make a living and the economic activities within a specific (affected) area;
 - **Institutional and Empowerment Processes:** people's ability to become actively involved and influence the decision making process, and also the efficiency and operation of local authorities and other significant organisations; and
 - **Socio-Cultural Processes:** the way in which humans interact and relate to each other within the context of their environment, and how this interaction is guided by value systems.
- Identify how these processes might change as a result of the proposed project;
- Identify all the potential impacts that may occur as a result of the change processes brought about by the proposed project;
- Identify key issues and impacts of significance that would have to be addressed during the EIA phase, which includes the identification of information gaps;
- Identify the alternative for the proposed Aquaculture Development Zone that would create change processes with the least significant impacts, and which would then have to be assessed in more detail during the EIA phase; and
- Describe the proposed studies for the Impact Assessment Phase that would ultimately fill the identified information gaps and result in a detailed assessment of the potential impacts.

Approach and Methodology

The following procedures were implemented to meet the objectives of the study.

Data Collection

To obtain baseline information on the social conditions characterising the study area on individual, community, institutional and organisational level in terms of current and predicted future changes with and without the project, data collection methods took on the following forms:

- Site visits on 20 October 2017, which covered visual observations of the affected area, including structures, land use, and activities;
- A meeting with local stakeholders on the 25th of January 2018;
- A desktop study of Census 2011 to determine any significant social trends in the area;
- A desktop aerial study of the affected area through the use of Google Earth;
- A desktop study of the Integrated Development Plan (IDP) of the affected Local Municipality (Mandeni); and
- Relevant sections from the Spatial Development Frameworks (SDF) as summarised in the IDP.

Information that was relevant to the project was identified and assessed from these sources, and within the context of the pre-construction, construction, operational, and decommissioning phases of the proposed project.

Limitations and Assumptions

- This study was carried out with the information available to the specialist at the time of executing the study, within the available time frames and budget. The sources consulted are not exhaustive and additional information which might strengthen arguments or contradict information in this report and/or might exist.
- The specialists did endeavour to take an evidence-based approach in the compilation of this report and did not intentionally exclude scientific information relevant to the assessment.
- It was assumed that the motivation for, and the ensuing planning and feasibility studies of the project were done with integrity, and that the information provided to date by the project proponent, the independent environmental assessment practitioner and the public participation consultant was accurate.
- Social sensitive areas have been identified through a desktop study making use of Google Earth. The areas that have been marked are the social sensitive areas visible to the social specialists at the time of the study, which are in proximity to the proposed Aquaculture Development Zone.

PROJECT BACKGROUND

The Department has identified land and sea based sites suitable for marine aquaculture activities along the South African coastline. Some of the sites are earmarked by the Department for the

development of ADZ's and hatcheries. The aims of the Department are to negotiate and obtain consent from the land owners, undertake EIA processes where necessary, declare an ADZ and develop the site by installing required basic infrastructure such as road, electricity, security fence, reservoir, water pump, water extraction and discharge pipeline etc.

Purpose

The purpose of the ADZ seeks to address poverty and unemployment in coastal areas by creating skill-based employment. The infrastructure development on the site will require labour force which will be sourced from the surrounding community. Once farms have been established people from the surrounding community will have an opportunity to developed skills on farming aquatic organisms.

Site Description (Amatikulu)

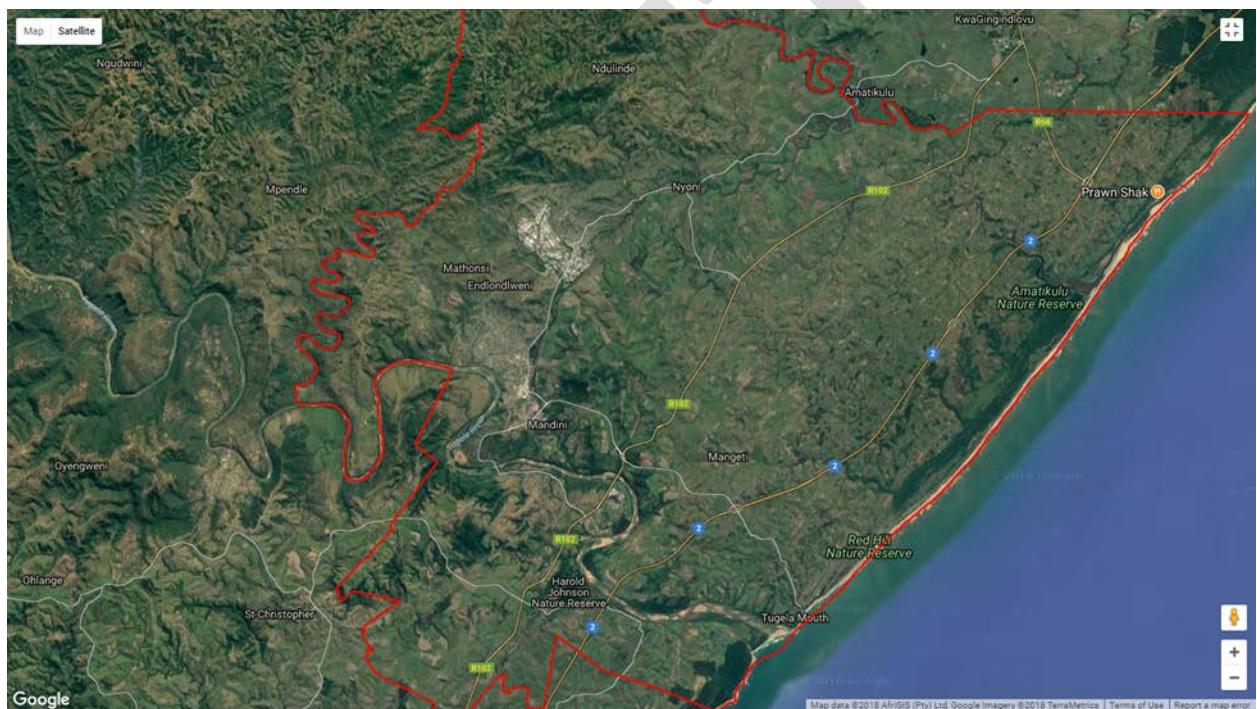
The Amatikulu site is situated in the KwaZulu Natal province, approximately 120km north of Durban, 29°04'26.2''S and 31°38'49.5''E. The site has an area of approximately 108.37 Ha in size. The site is situated next to the Amatikulu estuary and is characterised by a low lying estuarine coastal zone with tropical vegetation and predominantly sandy substrate. The present



Figure 1. Image of the Amatikulu site

Custodian of the land is the Ingonyama Trust Board. The Amatikulu site was a thriving prawn farm in the 1990's, however the only remnants of the prawn farm are the unused earthen dams, water inlet channel (which are extensively covered by vegetation) and demolished pump house situated at the mouth of the Amatikulu estuary. Current infrastructure on the site include 3 phase power, gravel roads, unused tanks and ponds and a fence that runs around parts of the site. The current operations and activities that are currently running on the site include an administration building for Amatikulu pet products, water purification tanks, old prawn processing facility currently used to make dog food, pack house and storeroom, tropical fish farm green house tunnels and hatchery, work shop, pet treats manufacturing building and a water treatment facility.

General Overview of the Study Area



Source: Google Earth

As per the Census of 2011, the Province of KwaZulu-Natal (KZN) covers an area of approximately 94361.32 km², the province consists of ten (10) District Municipalities and one (01) Metropolitan Municipalities. Census 2011 further indicated that the KZN had an estimated total population of 10267300 people, this means that the population density within KwaZulu-Natal now stands at 108.81 people per km².

An increase in population size and density pose challenges for the integrated management of the natural, built and human environment. An increase in population will put pressure on the conservation of the remaining biodiversity, ecosystems and natural open spaces; the conservation of the cultural and historical heritage buildings, sustaining open spaces and buildings in an aesthetically pleasing

manner based on ecological principals; and the maintenance of a healthy and safe environment for people which promote individual and community well-being.

Province	Census 1996	Census 2001	Census 2011
Western Cape	3 956 875	4 524 335	5 822 734
Eastern Cape	6 147 244	6 278 651	6 562 053
Northern Cape	1 011 864	991 919	1 145 861
Free State	2 633 504	2 706 775	2 745 590
KwaZulu-Natal	8 572 302	9 584 129	10 267 300
North West	2 727 223	2 984 098	3 509 953
Gauteng	7 834 125	9 388 854	12 272 263
Mpumalanga	3 123 869	3 365 554	4 039 939
Limpopo	4 576 566	4 995 462	5 404 868
South Africa	40 583 573	44 819 778	51 770 560

Censuses 1996 and 2001 have been aligned to 2011 municipal boundaries

Source: Census 2011

The Mandeni Municipality population is spread unevenly among the 17 electoral wards with wards 12, 7, and 4 being the most populated wards. However, employment opportunities are concentrated mainly around Mandeni Town with limited opportunities being found in the rural areas.

Approximately 55,740 (40.4%) of the population has no source of income and about 33, 612 (24.3%) earn less than R400 per month, indicating that almost 64.7% of the population of Mandeni live below the poverty line. This illustrates that the majority of people in Mandeni are low income earners, which implies possible that the majority are factory workers/labourers. Approximately 516 households earn over R25, 600 per month. This is an indication of the limited jobs available for qualified and skilled personal or possibly the lack of skilled and literate personal.

Approximately 61% of the population in Mandeni have access to piped water supplied through regional/local water schemes. 25.8% of households in 2011 had water inside dwelling units which was higher than the districts average of 23.7% but lower than the provincial of 40% and national 46.3%.

According to the Census 2011, in terms of racial composition, the predominant population group in Mandeni is represented by Black Africans, with 133560 Black African people, which is 96.73% of the total population.

Approximately 62.6% of the population in Mandeni LM is between the ages of 15-64 years falls within the economically active age cohort and includes both the employed and the years of age. As such, the number of people entering the job market will increase substantially over the next few years. Similarly, need for employment opportunities will also increase.

CHANGE PROCESSES AND POTENTIAL IMPACTS

In order to address the overall objective of this study, it was necessary to compile a detailed description of the study area. Each subsection first presents the baseline profile (status quo) of the receiving environment in terms of the various social processes (i.e. geographical, demographical, economical, institutional/empowerment, and sociocultural). It is believed that the baseline profile would be maintained to a large extent (not taking into account variables outside of the project) in the event that a 'no go' option was implemented. Each subsection concludes with a table summarising how the project is likely to change these baseline profiles, and the related impacts that could be expected as a result of the project. This is followed by suggestions on how the assessment of the potential impacts should be undertaken within the EIA Phase.

This section intends to address the following objectives:

- Assess the affected local area (settlements and institutions) in terms of:
 - **Geographic Processes:** the land use pattern within the (affected) area;
 - **Demographic Processes:** the number and composition of the local population;
 - **Economic Processes:** the way in which people make a living and the economic activities within a specific (affected) area;
 - **Institutional and Empowerment Processes:** people's ability to become actively involved and influence the decision making process, and also the efficiency and operation of local authorities and other significant organisations; and
 - **Socio-Cultural Processes:** the way in which humans interact and relate to each other within the context of their environment, and how this interaction is guided by value systems.
- Identify how these processes might change as a result of the proposed project;
- Identify all the potential impacts that may occur as a result of the change processes brought about by the proposed project;
- Identify key issues and impacts of significance that would have to be addressed during the EIA phase, which includes the identification of information gaps;

- Identify the alternative for the proposed Aquaculture Development Zone that would create change processes with the least significant impacts, and which would then have to be assessed in more detail during the EIA phase; and
- Describe the proposed studies for the Impact Assessment Phase that would ultimately fill the identified information gaps and result in a detailed assessment of the potential impacts.

For the purposes of this study the impact variables were categorised in terms of change processes, as previously mentioned. A change process can be defined as change that takes place within the receiving environment as a result of a direct or indirect intervention. A potential impact follows as a result of the change process. However, a change process can only result in an impact once it is experienced as such by an individual/community on a physical and/or cognitive level.

The Figure below provides an overview of the preliminary social sensitivity of the Amatikulu site in relation to the surrounding area, The social sensitivity maps was developed based on a desktop study through the use of *Google Earth*, where the social specialist endeavoured to identify social sensitive areas such as residential areas (human settlement), commercial/industrial areas and nature reserves. However, it should be noted that these were the areas visible to the social specialist at the time of the study and therefore it is entirely possible that more areas of a social sensitive nature might be found during the Impact Assessment phase

Following on the respective social sensitivity maps, the various subsections discuss the respective change processes and the potential impacts that could be experienced by the receiving environment as a result of the construction and operation of the proposed Amatikulu Aquaculture Development Zone. The categories of processes are as follows:

- **Geographic Processes:** the land use pattern within the (affected) area;
- **Demographic Processes:** the number and composition of the local population;
- **Economic Processes:** the way in which people make a living and the economic activities within a specific (affected) area;
- **Institutional and Empowerment Processes:** people's ability to become actively involved and influence the decision making process, and also the efficiency and operation of local authorities and other significant organisations; and
- **Socio-Cultural Processes:** the way in which humans interact and relate to each other within the context of their environment, and how this interaction is guided by value systems.

Baseline Geographical Processes

Geographical processes relate to land use patterns and infrastructure in the area. This section therefore describes the land use in the study area from a social perspective, specifically in terms of settlement patterns and land use developments. Land use is defined as “the way land is developed and used in terms of the types of activities allowed (agriculture, residences, industries, etc.) and the size of buildings and structures permitted. Certain types of pollution problems are often associated with particular land uses, such as sedimentation from construction activities”. Another definition of land use is as follows: “Patterns of land use arise naturally in a culture through customs and practices, but land use may also be formally regulated by zoning, other laws or private agreements such as restrictive covenants”.

According to the Mandeni IDP, Agricultural farming system in Mandeni is more focus on a traditional and semi-intensive farming system. Commodity produced in the area mainly is sugarcane at the commercial and small scale, also timber plantations both in the private and individual lands. Both enterprise commodities dominates 38% (60 250 ha) of 158 553 hectares according to the BRU database. The tourism industry in the Mandeni Municipality is regarded as small, but developing. The best known tourist attractions are those based around the heritage route and the wildlife sector.

Geographical Change Processes

Geographical change processes refer to land use change as a result of the actual or perceived changes in land use, whether it be on a temporary or permanent basis. The Proposed Amatigulu Aquaculture Development Zone might lead to a change in the land use within the local area. The assessment of a land use change process from a social perspective takes into account how the proposed Aquaculture Development Zone might affect the behaviour/lives of land owners and/or land users.

Potential Impacts

The Table below provides an overview of the expected change processes as well as the expected impacts that might occur as a result of the change processes taking place. These potential impacts will be assessed in detail during the Impact Assessment phase.

Table: Overview of Expected Geographical Change Processes and Potential Impacts

GEOGRAPHICAL CHANGE PROCESSES							
Expected Change Process		Yes	No	Expected Impact	Project Phase	Type of Impact	Status
Access to environmental resources	Will the development impact on people's access to environmental resources, such as water, wood, medicinal plants etc?		X	No impact foreseen.	n/a	n/a	n/a
Change in access to resources that sustain livelihoods	Will the development impact on people's (legal or illegal, formal or informal) access to environmental resources that help to sustain their livelihoods, e.g. grazing land for their cattle; wood for heat/cooking/selling, etc.?		X	No impact foreseen	n/a	n/a	n/a
Land acquisition and disposal, including availability of land	Will the development contribute to or directly impact on the ability of local residents to keep or acquire property/land?	X		The development will restrict access to that portion of land, although certain land uses will still be permitted within the servitude.	Operation	Category 1	Negative
	Will the development set a precedent for change in land use in the area?		X	No impact foreseen	n/a	n/a	n/a
	Are there any potential landclaims for the area?	Unsure		It is not foreseen that a change in ownership would bring about significant changes in land use.	Construction	Category 1	Neutral
	Will the development affect the claims process?						

Information Gaps

To fully assess the potential impacts as a result of geographical change processes, more information is needed on the following aspects:

- The size and number of expected construction and operational vehicles as well as which route(s) will be used to gain access to the various construction sites;
- Planned developments for the study area; and
- Whether or not any land claims exist on any of the land along the route alternatives.

Baseline Demographical Processes

Demographical processes relate to the number of people and the composition of a community and include an overview of the population size, the race, age, gender and educational profile of a population as well as household compositions.

Mandeni

Local Municipality 591 from Census 2011

Area: 545.48 km²

Population: 138078 (253.13 per km²)

Households: 38235 (70.09 per km²)

Gender	People	Percentage
Female	72746	52.68%
Male	65332	47.32%

Population group	People	Percentage
Black African	133560	96.73%
Indian or Asian	2286	1.66%
White	1318	0.95%
Coloured	718	0.52%
Other	195	0.14%

First language	People	Percentage
isiZulu	123778	89.87%
English	6391	4.64%
isiNdebele	1609	1.17%
isiXhosa	1200	0.87%
Sign language	1123	0.82%
Afrikaans	1038	0.75%
Other	784	0.57%

Households

A household is defined as: “One or more people occupying a housing unit as their usual place of residence. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements”

Summary

The Table below provides an overview summary of the population demographics of the local municipal area in relation to South Africa as a whole, as well as the province.

Table: Summary of Population Characteristics

	KZN	DISTRICT MUNICIPALITY (iLembebe)	LOCAL MUNICIPALITY (Mandeni)
	2011	2011	2011
Area size (km2)	94 361.32	3 269.26	545.48
Total population	10 267 300	606 809	138 078
Population density (people per km2)	108.81	185.61	253.13
Total households	2 539 429	157 697	38 235
Avg. persons per household	26.91	48.23	70.09
Predominant Population Groups	African Black 8 912 921 (86.81%)	African Black 550758 (90.76%)	African Black 133 560 (96.73%)
Predominant Gender	Females 538 8625 (52.48%)	Females 317 801 (52.37%)	Females 72746 (52.68%)

Education

One of the driving forces behind social change is educational attainment, which in turn is linked to poverty levels as there appears to be a correlation between the level of educational attainment and income levels. People with higher educational levels tend to be economically better off, and therefore contribute more to the reduction of the unemployment rate. Educational attainment is also linked to poverty in the sense that funds are required to further studies, therefore people living in less favourable economic conditions tend to be unable to further their education, which in turn holds them in a downward poverty spiral.

The Census 2011 revealed that in the Mandeni Municipality, the number of people with no schooling declined from 19.2% to 10.1% between 2001 and 2011. Matric level increased from 22.3% to 30.6%,

whereas, primary educational enrolment in to 90.9% from 89.3% in the same period. However, the number of people with higher education declined from 3.6% to 2%. This decline may be the consequence of the low standards of living which as a result contributes to the inability to afford tuition for higher learning institutes.

Demographical Change Processes

The construction and maintenance of the proposed Aquaculture Development Zone could lead to a change in the number and composition of the population within the affected local area, which in turn could lead to economic, land use, and socio-cultural change processes.

Potential Impacts

The Table below provides an overview of the expected change processes to occur as well as the expected impacts that might occur as a result of these change processes taking place. The potential impact(s) that follow from a particular change process taking place will be assessed in detail during the Impact Assessment phase.

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Table: Overview of Expected Demographic Change Processes and Potential Impacts

DEMOGRAPHIC CHANGE PROCESSES							
Expected Change Process		Yes	No	Expected Impact	Project Phase	Type of Impact	Status
Population change	Will the development lead to an increase in numbers of a certain section of the population, e.g. migratory workers?	X		Influx of construction workers that will lead to a change in the number and composition of the local community, and impact on economy, health, safety and social well-being.	Construction	Category 1	Negative to Neutral
				Influx of maintenance workers that will lead to a change in the number and composition of the local community, and impact on economy, health, safety and social well-being.	Construction	Category 1	Negative to Neutral
In-migration Of unemployed work seekers	Will the development intentionally or unintentionally contribute to the in-migration of work seekers into the area?	X		Influx of job seekers that will lead to a change in the number and composition of the local community, and impact on economy, health, safety and social well-being.	Construction	Category 1	Negative to Neutral
Relocation or displacement of individuals or families	Will the development at this or future stages lead to the relocation of residents?		X	No impact foreseen	n/a	n/a	n/a

Information Gaps

To fully assess the potential impacts as a result of demographical change processes, more information is needed on the following aspects:

- The construction processes and associated timeframes;
- The composition of the construction workforces in terms of size, skills levels, and origin;
- The composition of the maintenance workforce and their activities;
- The number of local employment opportunities; and
- The expectations of the local communities in terms of employment opportunities.

Baseline Economical Processes

Economical processes relate to the way in which people make a living and the economic activities within that society. The employment status within any given area gives an indication of the economic stability of such an area and also serves as an indicator of such an area's general well-being.

Employment and Economic Sectors

The Table below provides an overview of the employment and economic sectors of the study area in relation to the District Municipality, and the affected province (KwaZulu-Natal).

	KZN	DISTRICT MUNICIPALITY (iLemebe)	LOCAL MUNICIPALITY (Mandeni)
	2011	2011	2011
Unemployed	33.4%	30.8%	28.6%
Youth Unemployment	42.0%	37.2%	36.6%
Labour Force Participation	56.5%	47.7%	34.7%
Dependency Ratio Per 100 (15-64)	58.5	63.2	59.7

Household and Personal Income

Approximately 55,740 (40.4%) of the population has no source of income and about 33,612 (24.3%) earn less than R400 per month, indicating that almost 64.7% of the population of Mandeni live below the poverty line. This illustrates that the majority of people in Mandeni are low income earners, which implies possible that the majority are factory workers/labourers. Approximately 516 households earn over R25,600 per month. This is an indication of the limited jobs available for qualified and skilled personal or possibly the lack of skilled and literate personal.

Approximately 13% of the population have no source of income. Majority (26%) of the population earn R9, 601 - R19, 600, 23% earn R19, 601 - R38, 200 and 12% earn R38, 201 - R76, 4000. It can be deduced that approximately 55% of the households in Mandeni earn R1 – R54 per day, which is negligible to sustain a household. Approximately 34% are employed, 14% are unemployed, 8% are discouraged work seeker and 44% are not economically active.

Economical Change Processes

Economic change processes relate to the changes brought about to the employment and general economic profile of an area as a result of the introduction of any development. For example, job opportunities might be created as a result of the construction and maintenance of the proposed substation and loop-in/-out power lines. Employment creates a source of income, which in turn enables the employed individual to access services and a support mechanism for his/her family

Potential Impacts

The Table below provides an overview of the expected economical change processes to occur as well as the expected impacts that might occur as a result of the change processes taking place. These potential impacts will be assessed in detail during the Impact Assessment phase

Table: Overview of Expected Economical Change Processes and Potential Impacts

ECONOMICAL CHANGE PROCESSES							
Expected Change Process		Yes	No	Expected Impact	Project Phase	Type of Impact	Status
Increase in Division between rich and poor	Will the development exacerbate class equalities?		X	No impact foreseen	n/a	n/a	n/a
Enhanced / reinforced economic equities	Will the development enhance or enforce class inequality?		X	No impact foreseen	n/a	n/a	n/a
	Will the development deny or enhance economic opportunities for vulnerable communities?	X		Unskilled labour, might be sourced from the local area thereby creating job and income opportunities.	Construction	Category 1	Positive
	Will the project create different levels of economic opportunity?	X		Depending on the skills levels required, it is believed that different skills levels will have differently structured salary packages, thereby creating lower income to higher income opportunities.	Construction and Operation	Category 1	Positive
	Will the employment opportunities created by the development be sustainable?	X		It is believed that the developments will create new and sustainable jobs in a new industry	Operation	Category 1	Positive
Change in the commercial / industrial focus of the community	Will the development change the income generating focus of the community?		X	No impact foreseen	n/a	n/a	n/a
	Do residents have the required skills, life experience and contextual understanding to benefit from the proposed development?	n/a	n/a	No impact foreseen	n/a	n/a	n/a
	Will a change in economic focus associated with the development have repercussions for social cohesion		X	No impact foreseen	n/a	n/a	n/a
Change in employment equity of vulnerable	Are vulnerable groups able to take advantage of changed employment opportunities associated with the development?	X		Where possible, job opportunities will be provided to local community members, which would include vulnerable groups such as women.	Construction and Operation	Category 1	Positive

groups	Will vulnerable groups have to compete with more appropriately qualified applicants from elsewhere?	X		The required skills might not be available in the local area, which means that the appropriate skills might have to be 'imported', thereby causing a reduction in the job and income opportunities available to local residents.	Construction and Operation	Category 1	Positive
Change in occupational opportunities	Will the development lead to an increase or decrease in employment opportunities?	X		An increase in employment opportunities is expected.	Construction and Operation	Category 1	Positive
	Will the development create different levels and types of employment?	X		Employment opportunities will range from unskilled to highly skilled positions.	Construction and Operation	Category 1	Neutral
	What types of skills will the development require?	n/a	n/a	Mostly skilled workers would be required, but some unskilled work would also be required.	Construction and Operation	Category 1	Neutral
Land acquisition and disposal, including cost of land	Will the development lead to a significant increase in the cost of land/property in the area?		X	No impact foreseen	n/a	n/a	n/a
	Will the development result in an increase of land/property prices?		X	No impact foreseen	n/a	n/a	n/a
	Will the increase in land/property prices exacerbate class and race inequity?		X	No impact foreseen	n/a	n/a	n/a

Information Gaps

To fully assess the potential impacts as a result of economical change processes, more information is needed on the following aspects:

- The local employment opportunities that will be created, both direct and indirect formal and informal job opportunities;
- If available, the average period of employment and an outline of a typical salary package for unskilled labour.

Baseline Institutional and Empowerment Processes

Institutional and Empowerment processes relate to the role, efficiency and operation of government sectors and other organisations within the area in terms of service delivery. It also investigates the ability of people to engage in decision-making processes to such an extent that they have an impact on the way in which decisions are made that would concern them.

Municipal Services

The Table below provides an overview of the municipal services of the iLembe District Municipality in relation to the KwaZulu-Natal Province

	SA	KZN	DISTRICT MUNICIPALITY
	2011	2011	2011
Energy Cooking (Electricity)	74.0%	68.6%	65.1%
Energy Heating (Electricity)	59.0%	57,5%	53.0%
Energy Lighting (Electricity)	84.0%	77.9%	71.4%
Refuse(Removed by local authority/private company)	55.4%	53.1%	36.4%
Sanitation (Flush/Chemical toilet)	57.0%	53.2%	43.0%
Water (Piped (tap) water inside the dwelling/yard)	32.3%	63.6%	44.2%

It would appear that, in general within the iLembe District Municipality, municipal services are sufficient and that the municipal network would be able to sustain additional connections to the electricity and water network. Sanitation and refuse services appears to be at a vulnerable stage, which means that it can easily be overloaded and should be used with caution.

Institutional and Empowerment Change Process

Institutional and Empowerment Change Processes relate to way in which the proposed project might change the face of service delivery in the area and how this change might affect the quality of life of local residents. It furthermore assesses local residents' ability to negotiate such changes in a way that is mutually beneficial to both the project proponent as well as the affected landowners.

Potential Impacts

The Table below provides an overview of the expected institutional and empowerment change processes to occur as well as the expected impacts that might occur as a result of the change processes taking place. These potential impacts will be assessed in detail during the Impact Assessment phas

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INSTITUTIONAL AND EMPOWERMENT CHANGE PROCESSES							
Expected Change Process		Yes	No	Expected Impact	Project Phase	Type of Impact	Status
Change in / disruption of power relationships	Will the development impact on the levels of power, opportunity and access of individuals or sections of the community,		X	No impact foreseen	n/a	n/a	n/a
	Is the development being used for the political gain of a section of the community, and what are the implications for the larger social environment?		X	No impact foreseen	n/a	n/a	n/a
Exclusivity	Will the development contribute to the culture of exclusivity?		X	The development would create economic growth through the availability of services.	Operation	Category 1	Positive
Inequality	Will the development increase unequal access to opportunities or resources?		X	The development will enhance more equal opportunities to resources as additional services become available.	Operation	Category 1	Positive
Change in community infrastructure	Will the development change any aspect of community infrastructure, such as crèches, clinics, schools, churches, formal or informal sports fields, open areas, dumping grounds etc?		X	No impact foreseen	n/a	n/a	n/a
	Will the development create increased demand for basic services, e.g. water, electricity, sewerage, roads?	X		Additional demand on municipal, such as water, sewerage and roads could impact on health and safety if such services are not available.	Construction and Operation	Category 1	Neutral to Negative
	Will the existing access of the community to free basic services be impacted by the development?		X	No impact foreseen	n/a	n/a	n/a
Change in housing needs / demands	Will the development create a housing need, e.g. due to the in-migration of workers?	X		It is possible that the majority of the construction workforce would be sourced from outside the area due to the skills levels required. The	Construction and Operation	Category 1	Neutral to Negative

				workforce would then most probably be housed within a construction village.			
	Has the need for more housing been addressed by the development and or the authorities?	Unsure		It is possible that the construction and operational workforce would be housed in the Project.	Construction and Operation	Category 1	Neutral to Negative

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Information Gaps

To fully assess the potential impacts as a result of empowerment and institutional change processes, more information is needed on the following aspects:

- The risk for attitude formation against the project (social mobilisation);
- Whether a construction village will be used, and if so, the most likely location for such a construction village, how many workers would be housed within the construction village, and the housing conditions.

Baseline Socio-Cultural Processes

Socio-cultural processes relate to the way in which humans behave, interact and relate to each other and their environment, as well as the belief and value systems which guide these interactions. At the time of the study, not enough information was available to determine the level of cultural and place attachment that residents have to the area. In terms of socio-cultural processes it should be noted that sense of place goes hand in hand with place attachment, which is the sense of connectedness a person/community feels towards certain places. Place attachment may be evident at different geographic levels, i.e. site specific (e.g. a house, burial site, or tree where religious gatherings take place), area specific (e.g. a residential area), and/or physiographic specific (e.g. an attachment to the look and feel of an area). The concept of sense of place therefore attempts to integrate the character of a particular setting with the personal emotions, memories and cultural activities associated with such a setting.

Socio-Cultural Change Processes

Socio-cultural change processes that are associated with the construction and operation of the proposed project include changes such as health and safety aspects and sense of place. The concept of 'health' is not only limited to physical health (i.e. the absence of ailments or illness), but also includes mental and social health. The expected changes that can occur in relation to health and safety aspects can be as a result of the presence of the proposed Aquaculture Development Zone during operation, as well as the presence of construction workers and/or job seekers during construction and the operation phase

SOCIO-CULTURAL CHANGE PROCESSES							
Expected Change Process		Yes	No	Expected Impact	Project Phase	Type of Impact	Status
Disruption of social networks	Will the development impact on existing social networks?		X	No impact foreseen	n/a	n/a	n/a
Disruption in daily living and movement patterns	Will the development change the lifestyle of residents?		X	No impact foreseen	n/a	n/a	n/a
	Will the development impact on access to facilities and resources, such as schools, hospitals, fields, forests, etc?		X	No impact foreseen	n/a	n/a	n/a
	Will it impact on movement patterns, such as pedestrians crossing roads?		X	No impact foreseen	n/a	n/a	n/a
	Will it divide communities physically (e.g. through the building of a highway)?		X	No impact foreseen	n/a	n/a	n/a
Dissimilarity in social practices	Do new residents have dissimilar social practices to current residents?	Unsure		If the new workforce has dissimilar social practices than local residents, conflict can be expected.	Construction and Operation	Category 1	Negative
	Do the new residents have different values, religious practices, social standard, etc?						
Alteration in family structure	Could the development threaten family cohesiveness?	X		Socially acceptable integration, including the risk of spreading STIs and HIV/AIDS with an impact on health. The spread of STI and HIV is a matter of great concern, also in view of the light that construction workers move out of the area into another area where the spread of these STI and HIV continues. Apart from the obvious	Construction	Category 1	Negative
	Could it impact on immediate or extended family networks?	X					
	Could it impact on the traditional roles played by members of the family?	X					

				health implications, HIV infection in particular also has an economic impact.			
Conflict	Will the development lead to conflict between sectors of the social environment?	Unsure		If social integration between newcomers and residents is hindered, it can lead to conflict, which in turn delays the construction process and has economic implications for the project	Construction and Operation	Category 1	Negative
	Is there conflict between the developer and the public?	Unsure		Where conflict exists, it increases the risk for social mobilisation, with resultant delays on the project and an economic impact on both the project proponent and project opponent.	Construction and Operation	Category 1	Negative
	Is this conflict being addressed?						
Safety and crime impacts	Will the development impact on existing crime and safety patterns?	X		Presence of construction workers and job seekers leads people to believe that there will be an increase in crime, which impacts on surrounding landowners' sense of safety and security.	Construction and Operation	Category 1	Negative
Change in sense of place	Will the development impact on people's "sense of place", e.g. through the large scale development of a rural community?		X	The area is already characterised by infrastructure of a similar nature, i.e. previous Prawn Farm. The area is therefore already 'spoilt'.	Operation	Category 1	Neutral
	Will the change "in sense of place" impact on people's relationship to the environment?		X				
Implications for social history	Does the development have any implications for the social history of affected communities		X	No impact foreseen	n/a	n/a	n/a

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Information Gaps

To fully assess the potential impacts as a result of socio-cultural change processes, more information is needed on the following aspects:

- The cultural dynamics of the existing settlements and their ability to accommodate and/or integrate workers from outside their community;
- Measures that are normally implemented at a construction site of this nature (substation and loop-in/-out power lines) to secure and control access to the area;
- The daily activities of surrounding residents and their cultural attachment to the area; and
- The activities of maintenance workers and where these maintenance workers will be sourced from.

CONCLUSIONS AND RECOMMENDATIONS

As could be expected, the construction phase is characterised by a number of negative social impacts, which is mainly due to the nature of the activities that take place during this phase. Although the expected social impacts associated with the construction phase are mostly negative across all the change processes, these impacts are for the most part only temporary in nature and as such are expected to only last over the construction period.

Even though all of the identified social impacts can be mitigated or enhanced successfully, it can only be done if the Implementing Agents, or its appointed contractor(s), commit to the responsibility of ensuring that the level of disturbance brought about to the social environment by the more negative aspects of the project, is minimised as far as possible.

In addition, the social specialist recommends the following:

- Ensure that social issues identified during the EIA phase are addressed during construction. This could be done by engaging social specialists where necessary or by ensuring that during construction the contractors have the necessary knowledge and skills to identify social problems and address these when necessary. Guidelines on managing possible social changes and impacts could be developed for this purpose.
- Always inform neighbouring landowners beforehand of any construction activity that is going to take place in close proximity to their property. Prepare them on the number of people that will be on site and on the activities they will engage in.

SOCIAL MITIGATION/ENHANCEMENT MEASURES

This section outlines the social mitigation measures for managing the anticipated social impacts as outlined in this report. The social mitigation measures are mostly applicable to the pre-construction and construction phases only.

The main objective of the social mitigation measures is to describe the approach and required procedures that the contractor(s) have to implement in order to manage social impacts during the pre-construction and construction phases of the project. This will also provide the contractor(s) with a tool against which they can measure the effectiveness of the intended management measures and to ensure compliance with any applicable policies and/or legal requirements.

Construction activities have the potential to largely impact on the social environment. Thus social mitigation measures ensure that construction activities are managed in such a manner that the positive impacts may be enhanced and the negative impacts are minimised as far as possible.

Policy

Relevant policies and commitments apply to contractors delivering services during the pre-construction and construction phases of the project.

Control Standards

Control standards for social management during the pre-construction and construction phases of the project have been derived from the following sources:

- National legislation;
- Relevant international policies and guidelines;
- Terms and conditions stipulated in construction contracts between the contractor and the project proponent.

Components

The following components have been addressed as part of the social mitigation measures:

- Arrival of construction workers;
- Possible inflow of unemployed work seekers;
- Relocation of households;
- Change in community infrastructure (additional demand on services);
- Change in housing needs/demands;
- Dissimilarity in social practices;
- Alteration in family structure; and

- Change in sense of place.

Influx of construction workers

Objective

- Manage the impact that the influx of construction workers might have on the composition and functioning of the local area.

Targets

- Minimise the potential for conflict between construction workers and local residents.
 - Ensure sufficient services are available to sustain an additional demand on these services so that the level of services that the local community is accustomed to is still readily available
- Method Statements
- Raise awareness amongst construction workers about local traditions and practices.
 - Inform local businesses that construction workers will move into the area to enable local businesses to plan for the extra demand.
 - Ensure that the local communities communicate their expectations of construction workers' behaviour with them.

Influx of job seekers

Objective

- Manage the impact that the influx of job seekers might have on composition and functioning of the local community, with particular concern for the impact that these job seekers might have on the local residents' sense of safety and security.

Targets

- Establish an employment strategy that is known and communicated to potential job seekers.
- Prevent loitering of individuals at the construction site or within nearby residential areas.
- Establish clearly identifiable features between actual construction workers and job seekers.
- Prevent the formation of informal settlements in or close to the construction site or within or close to established residential areas.

Method Statements

- Ensure that employment procedures/policies are communicated to local stakeholders, especially community representative organisations and ward councillors.

- Have clear rules and regulations for access to the construction site to control loitering. Consult with the local SAPS to establish standard operating procedures for the control and/or removal of loiterers at the construction site.
- Construction workers should be clearly identifiable by wearing proper construction uniforms displaying the logo of the construction company. Construction workers could also be issued with identification tags.
- The contractor should monitor areas where people gather in the field on a regular basis as this is normally the first indication that (informal) settlement might take place in the area. These people should be removed in co-operation with the local SAPS to prevent the formation and/or expansion of informal settlements in the area.

Change in Community Infrastructure (additional demand on services)

Objective

- Reducing the additional demand on municipal services so that these services are not overloaded, thereby minimising the risk for additional impacts as a result of a lack of proper services.

Targets

- Implementing and maintaining municipal services to the construction site and construction village (if applicable).
- Installing sufficient and effective sanitation services at both the construction site and the construction village (if applicable).

Method Statements

- Construction workers should be made aware of the limited capacity of the municipal services network.
- Negotiations with the affected local municipalities must be conducted and a “demand-side management” should be implemented.
- Sufficient portable chemical toilets should be provided on site and at the construction village (if applicable).
- If applicable, contractors should ensure adequate sanitation services (e.g. showers) at the construction village with effective drainage facilities to ensure that used water is carried away from the site.

Dissimilarity in Social Practices & Alteration in Family Structure

Objective

- Minimising the potential for conflict and health risks to occur between local residents and construction workers.

Targets

- The development and implementation of an HIV/AIDS awareness campaign.
- Controlled access at the construction village (if applicable) and construction site.
- Empowering local females to reduce their vulnerability.

Method Statements

- Consult with the local municipality to establish a partnership as outlined in the municipality's IDP.
- An aggressive STI and HIV/AIDS awareness campaign should be launched, which is not only directed at construction workers but also at the community as a whole.
- Access at the construction site should be controlled to prevent sex workers from either visiting and/or loitering at the construction village or the construction sites.
- Local women should be empowered. This could be achieved by employing them to work on the project, which in turn would decrease their (financial) vulnerability.

Change in Sense of Place

Objective

- Minimise the impact as a result of a change in sense of place.

Targets

- Maintain current residents' sense of place as far as possible.

Method Statements

- New infrastructure should be located in close proximity to existing infrastructure of a similar nature, as far as possible.
- The future placement of Aquaculture Development Zone should be done in consultation with affected landowners to minimise the impact on land use.
- Inform neighbouring property owners when construction will take place, including information on the nature and timeframe of the construction activities.

Contingencies

Provision should be made for the implementation of certain mitigation measures, e.g. a separate budget for managing social issues such as training of employees, supplying municipal services, etc.

Monitoring and Corrective Actions

The Implementing Agent should monitor the implementation of mitigation measures as outlined in this document. Corrective action should take place as soon as possible if mitigation measures are not implemented according to standard

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