

AN EVALUATION OF SOCIAL SUSTAINABILITY PRACTICES IN AN AGRI-BASED PRIVATE COMPANY IN THE EASTERN CAPE

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AN EVALUATION OF SOCIAL SUSTAINABILITY PRACTICES IN AN AGRI-BASED PRIVATE COMPANY IN THE EASTERN CAPE

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ABSTRACT

The concept of sustainability has received considerable attention over the last few decades (Scoones, 2007). International awareness and demands for sustainable development have pushed the sustainable narrative into the forefront of developmental goals. The Brundtland Report of 1987, released by the United Nations entitled “Our Common Future” resulted in the classic modern definition of sustainable development.

Agriculture is the primary source of food, shelter and fibre for the world and therefore has a leading role to play in the realisation of a sustainable future (Van Calker, Berentsen, Giesen and Huirne, 2005). Most sustainability research in agriculture has adopted a particular scale and dimension, leading to a host of definitions and methodologies for its assessment (Hayati, 2017, Janker and Mann, 2018, Latruffe, Diazabakana, Bockstaller, Desjeux and Finn, 2016, Smith and McDonald, 1998). Different approaches to assessing sustainable agriculture have developed in hand with various conceptual methods resulting in a lack of a common understanding of what sustainable agriculture means (Janker and Mann, 2018, Smith and McDonald, 1998). Agriculture has a leading role to play in sustainable development in the South African context; however, commercial agriculture in South Africa has been associated with human rights violations as well as unsustainable social practices and exploitation of

employees (Mather, 2007, Muller, Vermeulen and Glasbergen, 2012b). This research was conducted in an agri-processing company that had expanded rapidly and been experiencing high absenteeism and increased conflict in the work environment in an attempt to identify how many of the chosen indicators of on-farm internal social sustainability were present in the company.

The literature review helped to contextualise the subject of sustainability, agricultural sustainability, agricultural social sustainability and various methods for assessing agricultural sustainability. The subject of agriculture social sustainability within the South African context was expanded upon, and a framework was selected from the literature to develop the aims of this research. The Barrientos and Visser (2013) framework had been utilised in evaluating social sustainability in the South African agricultural context before, and when compared with relevant literature was deemed appropriate for this research.

Through the use of a case study approach, thirty employees were interviewed on a one on one basis with close ended questions. Data was collected through the use of an odd-numbered Likert scale and simple descriptive statistics were used to answer questions regarding which socially sustainable on-farm internal indicators, identified in the literature and in the chosen framework, occurred in the company in question. The research looked to further critically evaluate the aspects of social sustainability that were implemented by the company and discuss the challenges relating to those identified indicators that were not implemented. Finally, the research made recommendations to improve the on-farm internal social sustainability of the company in question.

The results of this research showed that out of the ten indicators of on-farm internal social sustainability that were relevant in the framework, five were present in the company in question and five were absent. Those indicators that were present were: contracts, wages, benefits, communication with management and adequate representation. Indicators that were not present included health and safety, employee wellbeing, the level of discrimination, the level of harsh treatment and employee decision making.

It was apparent from the results that there are many challenges to implementing on-farm internal socially sustainable policies and practices in the company. Chief amongst these challenges was communication with employees concerning policies that have been implemented and the information that is available to the employees regarding these policies. The company at the centre of this research should ensure that policies are put in place that helps

to convey information to employees and ensure that the policies are implemented efficiently and effectively. It was recommended that the company initiate a Human Resources division that would be responsible for communication and the implementation of policies to increase on-farm internal social sustainability. By increasing social sustainability in the workplace, the company should be able to increase its efficiencies and effectiveness in a competitive global market. The researcher is aware that the findings of this research are not generalizable and are specific to the company in question both in terms of scale and location.

Further research is needed to determine the impact of individual indicators and the weighting of each indicator in a specific environment. Further research should be conducted in a company that is in a similar industry and has similar staff demographics to the company at the centre of this research, as the scale of measure will influence the results.

KEYWORDS: Social sustainability, Agriculture, South Africa

Declaration

I declare that the Dissertation entitled, AN EVALUATION OF SOCIAL SUSTAINABILITY PRACTICES IN AN AGRI-BASED PRIVATE COMPANY IN THE EASTERN CAPE, which I hereby submit for the degree, MASTERS IN BUSINESS ADMINISTRATION at Rhodes University, is my own work. I also declare that this thesis/dissertation has not previously been submitted by me for a degree at this or any other tertiary institution and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Name Surname (*signed*)

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I dedicate this dissertation to my family. Thank you for all your help and support. Your belief and encouragement have been amazing. To my wife Sarah, thank you, I know that it was not easy and appreciate your understanding and encouragement.

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CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter provides a brief overview of sustainability in general, with reference to seminal texts from authors such as (Faber, Jorna and Van Engelen, 2005, Hart, 1997, Scoones, 2007), and agricultural sustainability (Smit and Smithers, 1993, Smith and McDonald, 1998, Van Calker *et al.*, 2005, Van Cauwenbergh, Biala, Bielders, Brouckaert, Franchois, Ciudad, Hermy, Mathijs, Muys and Reijnders, 2007). Agriculture in the South African context is examined and the need for social sustainability expanded upon (DoA, 2004, Hermanus, 2007, Mather, 2007, Muller, Vermeulen and Glasbergen, 2012a). Furthermore, the problem statement and research objectives are outlined.

This research was focused on sustainability and specifically on-farm internal agricultural social sustainability. In this research, a social sustainability framework chosen by the researcher from the literature, was used to evaluate social sustainability in a private agri-processing company. This framework incorporated elements from existing frameworks and focused on on-farm internal indicators of agricultural social sustainability that were relevant to the research being conducted.

The objectives of this research were to identify which socially sustainable on-farm internal agricultural indicators, identified in the chosen framework, were present in the company selected for this study. The research critically evaluated the indicators that occurred in the company and discussed the challenges relating to those that were not implemented. Finally, the research made recommendations to improve the social sustainability of the company.

1.2 Background

The challenge to develop a global economy that the planet can support indefinitely is vast (Hart, 1997). According to Tideman, Arts and Zandee (2013, 19), “*global problems have been created (and persist) because political and economic leadership employs flawed and increasingly outdated economic and business systems*”. The old world view of economics, society and the environment were based on Darwinian biology and Newtonian physics, where the fittest species (humans) could extract value at the lowest possible cost and individuals and organisations saw themselves as autonomous from society and the environment in their decision-making process (Tideman *et al.*, 2013).

Gitsham (2008), showed that sustainable organisations of today need to examine both internal and external stakeholder engagement, establish systems and develop new structures that deal with the complexities of environmental management and human rights issues.

Sustainability and sustainable developments have become watchwords over the last thirty years and through time have become a complicated and confusing narrative with many definitions (Scoones, 2007, Faber *et al.*, 2005). According to Faber *et al.* (2005) sustainability refers to an equilibrium between an object and its supporting environment and relates specifically to human-made or artificial systems.

Hopwood, Mellor and O'Brien (2005, 38) described the concept of sustainability as “*an attempt to combine growing concerns about a range of environmental issues with socio-economic issues*”. Classic sustainability involves changing and complex environmental dynamics which impact on human well-being and livelihoods that have interconnected economic, ecological and socio-political dimensions and have both local and global dimensions (Scoones, 2007).

Despite the confusing and complicated narrative surrounding sustainability, sustainable development is one of the guiding paradigms for development planning. Agriculture is the primary source of food, shelter and fibre for the world and therefore has a leading role to play in the realisation of a sustainable future. There is increasing public awareness and interest in the concept of agricultural sustainability (Van Calker *et al.*, 2005). The literature on agricultural sustainability indicates that there is a common theme that represents ecological, economic, and social dimensions (Van Calker *et al.*, 2005, Van Cauwenbergh *et al.*, 2007). The characteristics of agriculture range from the specific relationship between soil and plant at field level to international trading interactions at a global scale (Smith and McDonald, 1998). Agricultural sustainability incorporates ecological, financial and societal factors functioning at the various micro and macro levels. These levels occur in/on the field, farm, watershed, regional and national scales. The authors emphasise that the scale from which agricultural sustainability is viewed changes the perspective. At the biophysical level agriculture sustainability is based on plant growth and how factors such as soil fertility, climatic conditions and pests affect this. This aspect of agricultural sustainability focuses on management practices, which has been extensively researched. From an economic sustainability standpoint, cost considerations and economic viability are juxtaposed with changing environmental, social and economic conditions. From a social perspective, sustainable agriculture can be viewed on a macro scale

regarding food and fibre security. Smith and McDonald (1998) reported that there had been numerous attempts to assimilate the interpretations and scales of agriculture.

Most sustainability research in agriculture has adopted a particular scale and dimension of agriculture, leading to a host of definitions and methodologies for its assessment (Hayati, 2017, Janker and Mann, 2018, Latruffe *et al.*, 2016, Schader, Grenz, Meier and Stolze, 2014, Schindler, Graef and König, 2015, Smith and McDonald, 1998). Three different assessments of agricultural sustainability were identified (Douglass, 1984). Sustainability as nutrition sufficiency was the first viewpoint and this sought to maximise food production with profitability as the primary constraint. The second assessment was regarding controlling environmental destruction and degradation and was called sustainability as stewardship. The third view was demarcated regarding creating socially and economically viable rural systems and was called sustainability as a community.

Smith and McDonald (1998) showed that the views held by Yunlong and Smit (1994) and Douglass (1984) indicated the diversity in the understanding of agricultural sustainability. There are now at least seventy definitions of sustainable agriculture in literature (Hayati, 2017). As a result of this understanding, interpretations of sustainability in the agricultural sector now follow four dominant paradigms (Smith and McDonald, 1998).

These are:

1. equity, both intergenerational and intra-generational (Smit and Smithers, 1993),
2. food sufficiency (Smit and Brklacich, 1989),
3. environmental stewardship (Smit and Smithers, 1993)
4. socioeconomic viability (Brklacich, Bryant and Smit, 1991, Ikerd, 1990).

Even with the diversity in the conceptualisation of agricultural sustainability, there are broad consistencies amongst the definitions (Smith and McDonald, 1998).

Various authors, (Lehtonen, Aakkula and Rikkonen, 2005, Pesek, 1993, Latruffe *et al.*, 2016) showed that definitions of agricultural sustainability contain three essential criteria:

- 1) environmental quality and ecological soundness;
- 2) plant and animal productivity;
- 3) socioeconomic viability.

To achieve sustainable agriculture all three criteria, need to be met (Smith and McDonald, 1998). For a system to be productive and profitable, it must be consistent so the system must be ecologically sustainable. To be economically viable a system must be productive and cost-effective over an extended period, no matter how environmentally sustainable it is (Altieri, 1987, Ikerd, 1990, Stenholm and Waggoner, 1990).

The conceptual approaches to sustainable agriculture were reviewed by Hansen (1996). He examined two broad interpretations. The first views sustainability as an ideological goal that advocates a total approach to agriculture. This concept was framed around the impact of agriculture on the environment, with the aim of encouraging alternative agricultural practices that were less harmful (Smith and McDonald, 1998).

The second, system-describing concept, interprets agricultural sustainability as fulfilling a diverse set of goals or ability to continue through time (Hansen, 1996). This concept examines the viability of agriculture as experienced through global changes (Smith and McDonald, 1998). The conceptual approaches to assessing sustainability in the agricultural sector are, therefore:

- Sustainability as an approach to agriculture
 - Sustainability as an alternative ideology
 - Sustainability as a set of strategies.
- Sustainability as a property of agriculture
 - Sustainability as an ability to satisfy goals
 - Sustainability as an ability to continue

(Smith and McDonald, 1998)

Sustainability as a property of agriculture can either be construed as the ability to continue through time or the capacity to satisfy a diverse set of goals (Hansen, 1996). Sustainable agriculture goals include but are not limited to; the provision of humanity's food needs, economic viability, social welfare and the maintenance and enhancement of the natural environment. This approach can capture the multi-objective character of sustainability (Smith and McDonald, 1998). In the context of this research agricultural sustainability was viewed as a property of agriculture.

Sustainability indicators are the most commonly used method of sustainability evaluation within the literature. Indicators fit within the model of sustainability as a concept of agriculture (Hayati, 2017, Latruffe *et al.*, 2016, Schader *et al.*, 2014, Schindler *et al.*, 2015). In the

methodological approach to sustainable assessment, sustainability indicators fit within the multiple quantitative and qualitative method of evaluation. According to Smith and McDonald (1998), sustainability indicators in agriculture can be reflected on multiple levels depending on the scale that is being assessed.

Social sustainability in agriculture relates to, amongst others, the quality of life for farm workers and tenants as well as the local community who reside close to the farm, fair treatment of agricultural employees and positive farm family relationships. Internal social sustainability (at farm level) refers to the physical and psychological well-being of the farmer's family and the workforce. Where physical well-being relates to working conditions and health and psychological well-being refers to issues such as gender equality, education, integration and participation in society, feelings of independence and access to infrastructure and activities (Van Cauwenbergh *et al.*, 2007). In the case of this research only on-farm internal social sustainable agriculture indicators identified in the literature and compiled into a relevant framework were investigated.

Commercial agriculture in South Africa is capitalistic in nature with companies and corporations of various sizes controlling most aspects of the production process. Capitalistic patriarchal commercial agriculture appears to have exacerbated the numerous social issues around agriculture that have been inherited from the colonial and apartheid legacy. In the South African context, the social portion of sustainability must be interpreted in the context of apartheid and the need for equity and redress (Mather, 2007). The pool of employees that the agricultural sector draws from is generally of the least educated and most marginalised strata of South African society. This section of society (poor communities) faces many social ills such as domestic violence, drug and alcohol abuse, teenage pregnancies, gender-based violence and high levels of illness and disease (Hermanus, 2007). The South African agricultural industry has been associated with human rights violations as well as unsustainable social practices and the exploitation of farm workers (Muller *et al.*, 2012a).

In the South African Department of Agriculture discussion document on sustainable agricultural development (DoA, 2004), agriculture is set to play a critical role in sustainable development and poverty eradication in the South African context. A major challenge identified by the document is developing a society that is ecologically sustainable, socially equitable, materially sufficient, motivated by satisfying human needs and equity in resource allocation and use.

There are many frameworks in existence that can be used to determine the level of agricultural social sustainability (De Olde, Oudshoorn, Sørensen, Bokkers and De Boer, 2016, Gaviglio, Bertocchi and Demartini, 2017, Hayati, 2017, Janker and Mann, 2018, Latruffe *et al.*, 2016, Ochieng, Hughey and Bigsby, 2013). In this research the Barrientos and Visser (2013) framework that focused on two aspects of farm workers' wellbeing: measurable standards (contracts, wages, safety and health); and empowerment standards (levels of discrimination, decision-making roles within the business and freedom of association) was used to gauge on-farm internal social sustainability of the company.

1.3 Problem Statement

The company at the centre of this research is an agri-processing privately owned company based near Bathurst in the Eastern Cape Province of South Africa. The company is family owned and managed. The company experienced rapid growth in the last three years, moving from a core group of 20 full-time employees to over 75 full-time employees, 92% of the employees are women of whom 95% live off farm. During this expansion there was an increase in conflict and absenteeism from work. This research was conducted in an attempt to identify which on-farm internal agricultural social sustainable indicators identified in the chosen framework, based on literature, were present or absent, to critically evaluate these indicators and to make recommendations to improve social sustainability within the company.

In the South African context, commercial agriculture is often viewed as exploitative and harsh towards employees, which has led in the past to outbreaks of violence in certain agricultural areas (Hall, Wisborg, Shirinda and Zamchiya, 2013, Moseley and McCusker, 2008, Muller *et al.*, 2012b). This research endeavours to deepen the understanding of the indicators that influence on-farm internal social sustainability and their significance in a specific agri-processing facility in an attempt to increase the long term social stability of the farm.

1.4 Goal of the Research

The research attempts to critically evaluate which of the identified aspects (indicators) of on-farm internal social sustainability were present in an agri-processing company and make recommendations to improve the social sustainability of the company. The objectives outlined to unpack this overarching goal are:

Objective 1: Identify which aspects of on-farm internal social sustainability from the framework occur in the company.

Objective 2: Critically evaluate the indicators of on-farm internal social sustainability identified in objective one and discuss the challenges relating to those that are not implemented

Objective 3: Make recommendations to improve on-farm internal social sustainability in this company.

1.5 Conclusion

In this chapter a brief overview of the concepts of sustainability was provided, with reference to various texts from authors such as (Faber *et al.*, 2005, Hart, 1997, Scoones, 2007), and agricultural sustainability (Smit and Smithers, 1993, Smith and McDonald, 1998, Van Calker *et al.*, 2005, Van Cauwenbergh *et al.*, 2007). Agriculture in the South African context was briefly examined and the need for social sustainability in agriculture expanded upon (DoA, 2004, Hermanus, 2007, Mather, 2007, Muller *et al.*, 2012a). Furthermore, the problem statement and research objectives were outlined.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of sustainability and agricultural sustainability, with reference to texts from authors such as (Faber *et al.*, 2005, Hart, 1997, Janker and Mann, 2018, Scoones, 2007, Smit and Smithers, 1993, Smith and McDonald, 1998, Van Calker *et al.*, 2005, Van Cauwenbergh *et al.*, 2007). A brief overview of agriculture in the South African context is given and the need for social sustainability in agriculture shown (DoA, 2004, Hermanus, 2007, Mather, 2007, Muller *et al.*, 2012a). The link between on-farm social sustainability and the concept of social upgrading is explored (Barrientos, Gereffi and Rossi, 2011, Barrientos and Visser, 2013) and the chosen framework applied to on-farm internal social sustainability indicators (Hayati, 2017).

2.2 Sustainability

Sustainability and sustainable development have become watchwords over the last thirty years and through time have developed a complicated and confusing narrative with many definitions (Faber *et al.*, 2005, Scoones, 2007, Janker and Mann, 2018).

The Brundtland Report in 1987 entitled “Our Common Future” resulted in the classic modern definition of sustainable development: “*Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits, not absolute limits but limitations imposed by the present state of technology and social organisation on environmental resources and by the ability of the biosphere to absorb the effects of human activities.*” (Brundtland-Commission, 1987, 48). The report defined sustainability in the context of business as “*an approach that considers economic, social and environmental issues in a holistic, balanced and long-term way that benefits current and future stakeholders.*” (Brundtland-Commission, 1987, 48).

The concept of sustainability and sustainable development received far more attention following the 1992 Rio Earth Summit. Viederman (1994, 7) defined sustainability as “*community's control and prudent use of all forms of capital. Nature's capital, human capital, human-created capital, social capital, and cultural capital - to ensure, to the degree possible, that present and future generations can attain a high degree of economic security and achieve*

democracy while maintaining the integrity of the ecological systems upon which all life and all production depend”.

According to Faber *et al.* (2005) sustainability refers to an equilibrium between an object and its supporting environment and relates specifically to human-made or artificial systems.

Weybrecht (2013) stated that the central theme of sustainable development is concerned with the balance and interaction between social equity, environmental protection and economic growth.

The most common conceptualisation of sustainability is the “triple bottom line” (Janker and Mann, 2018). The triple bottom line (Figure 1) approach to sustainability incorporates the needs of environmental protection, economic growth and social equity and is a practical tool for incorporating sustainability into the business agenda (McDonough and Braungart, 2002).



Figure 1: The triple bottom line (adapted from: Janker and Mann, 2018)

In the context of this research the classic definition of sustainability provided by The Brundtland Report has been used to frame the idea of sustainability. This seminal work is extensively cited in literature and provides a clear broad concept of sustainability.

2.3 Why sustainability?

The challenge to develop a global economy that the planet can support indefinitely is vast (Hart, 1997). Gitsham (2008), showed that sustainable organisations of today need to examine both internal and external stakeholder engagement, establish systems and develop new structures

that deal with the complexities of environmental management, human rights issues, the production of non-financial reports and the promotion of change.

Biological systems are said to be fundamentally sustainable, as when the equilibrium in such a system is disturbed, it acts in a manner that will allow for equilibrium to be restored in the system. Man-made artificial systems lack natural equilibrium-restoring capacities, and unless they have been built in, may cause them to remain in a non-sustainable state until they break down completely (Faber *et al.*, 2005). Man-made systems rely on biological systems for their source of raw material to build the artificial system, energy sources to maintain the system and sinks to remove waste from the system. Sustainability of an artificial system revolves around the cycle from the source of the raw materials, through the system to the waste or sink (Faber *et al.*, 2005).

According to Faber *et al.* (2005), sustainability is imperative for complicated artificial systems as the complete cycle from the source through to sink is often not considered in planning and implementation. The discussion around sustainability has become relative and dynamic, with the consideration of local issues and not solely focused on environmental issues but all aspects of sustainability.

2.4 Sustainable Agriculture

Despite the confusing and complicated narrative surrounding sustainability, sustainable development is one of the guiding paradigms for development planning. Agriculture is the primary source of food, shelter and fibre for the world and therefore has a leading role to play in the elaboration of a sustainable future. There has been increasing public awareness and interest in the concept of sustainable agriculture (Van Calker *et al.*, 2005). Although a common understanding of what should be assessed in terms of sustainability or sustainable development in agriculture is lacking Janker and Mann (2018), the literature on sustainable agriculture indicates that there is a common theme that represents ecological, economic, and social dimensions (Van Calker *et al.*, 2005, Van Cauwenbergh *et al.*, 2007). The characteristics of agriculture range from the specific relationship between soil and plant at field level to international trading interactions at a global scale (Smith and McDonald, 1998). The political and scientific discourses around sustainable agriculture are highly interconnected and the ideas of “sustainable development” and sustainability can be interpreted in many ways depending on the background and goals of those doing the interpreting (Janker and Mann, 2018).

Smit and Smithers (1993, 499) defined sustainable agriculture as “*something to do with the use of resources to produce food and fibre in such a way that the natural resource base is not damaged, and that the basic needs of the producers and consumers can be met over the long term*”.

Sustainable agriculture has also been defined as the “*management and utilization of the agricultural ecosystem in a way that maintains its biological diversity, productivity, regeneration capacity, vitality, and ability to function, so that it can fulfil –today and in the future – significant ecological, economic and social functions at the local, national and global levels and does not harm other ecosystems*” (Lewandowski, Härdtlein and Kaltschmitt, 1999, 185). This concept, of the ability to continue at a specific status and meet specific goals, is important for this research. Therefore the definition of sustainable agriculture provided by Lewandowski *et al.* (1999) is the most appropriate definition to frame this research.

Most sustainability research in agriculture has adopted a particular scale and dimension of agriculture, leading to several definitions and methodologies for its assessment (Smith and McDonald, 1998, De Olde *et al.*, 2016, Hayati, 2017, Janker and Mann, 2018, Schader *et al.*, 2014, Smit and Smithers, 1993). Table 1 on the following page from Smit and Smithers (1993) highlights how the focus of sustainability shifts as the scale from which it is viewed changes. The table describes how the scale from which a particular dimension of sustainability is studied or viewed changes the focus of the observer. For example, if crop production sustainability is examined, the scale that it is studied at will change the focus of the study. At the micro level (farm level) the yield per land and the management thereof will be the focus of sustainability, at the meso level (regional level) the regional production and land use pattern will be the focus of sustainability, and at the macro level (global level), the global food and fibre supply will be the focus of sustainability.

Even with the diversity in the conceptualisation of sustainable agriculture, there are broad consistencies amongst the definitions (Smith and McDonald, 1998). Lehtonen *et al.* (2005) showed that definitions of sustainable agriculture contain three essential criteria:

- 1) Environmental quality and ecological soundness;
- 2) Plant and animal productivity;
- 3) Socioeconomic viability.

To achieve sustainable agriculture all three criteria, need to be met (Smith and McDonald, 1998, Hayati, 2017, Janker and Mann, 2018, Latruffe *et al.*, 2016).

For a system to be productive and profitable, it must be consistent so the system must be ecologically sustainable. To be economically viable a system must be productive and cost-effective over an extended period, no matter how environmentally sustainable it is (Altieri, 1987, Ikerd, 1990, Stenholm and Waggoner, 1990).

Dimension	Scale		
	Micro	Meso	Macro
Natural resource base	field level soil fertility, moisture	Agri-ecosystems, regional land capability	continental water and land resources, climate
Crop production	field yield management	Regional production, land use patterns	global food and fibre supplies
Economic return	Farm-level production, costs viability, capital outlay	Regional economy, value of production, distribution	trade marketing, policies, politics
Rural community	farm level tenure, family involvement, communication	rural economy, size and function, access to resource	Global poverty, hunger, equity, politics

Table 1: Meaning of agriculture by dimension and scale (Smit and Smithers, 1993)

2.5 Approaches used to measure sustainable agriculture

Different approaches to assessing sustainable agricultural development have developed in hand with the various conceptual methods. Resilience analysis or time trends can be utilised to assess sustainability when sustainability is viewed as the ability to continue. This approach attempts to determine the direction or degree of change in a system and is time consuming. It is generally used to determine ecological sustainability in an agricultural system. When looking at sustainability as the capacity to meet specific goals, various quantitative and

qualitative indicators can be used to measure and determine the level of sustainability (Smith and McDonald, 1998).

Using several quantitative and qualitative indicators in evaluating sustainable agriculture increases reliability when looking at sustainable agriculture as the capacity to meet a varied set of objectives where no single indicator occurs. In these cases, many characteristics that are believed to impact the sustainability of a system are acknowledged and quantifiable indicators recognised for each. The system would be said to be unsustainable if there is an adverse change in any one of these indicators (Smith and McDonald, 1998). The directness of measure, time period and scale of measurement (field, farm, national, international) all affect the choice of indicator. Indicators are most commonly used for sustainability assessment in agriculture as they are flexible (Smith and McDonald, 1998).

Indicators can also be quantified by assigning weighting measures to system characteristics, scoring the characteristics based on system constraints and then combining the weights and scores to create a figure of merit (Stockle, Papendick, Saxton, Campbell and Van Evert, 1994). An example is compiled in Table 2. In the case of this research various quantitative and qualitative indicators are compiled into a relevant framework in an attempt to determine on-farm internal social sustainability of the company. This method was used as it can be used to determine both qualitative and quantitative data and data from a specific scale and it can be compared to the chosen framework for relevance.

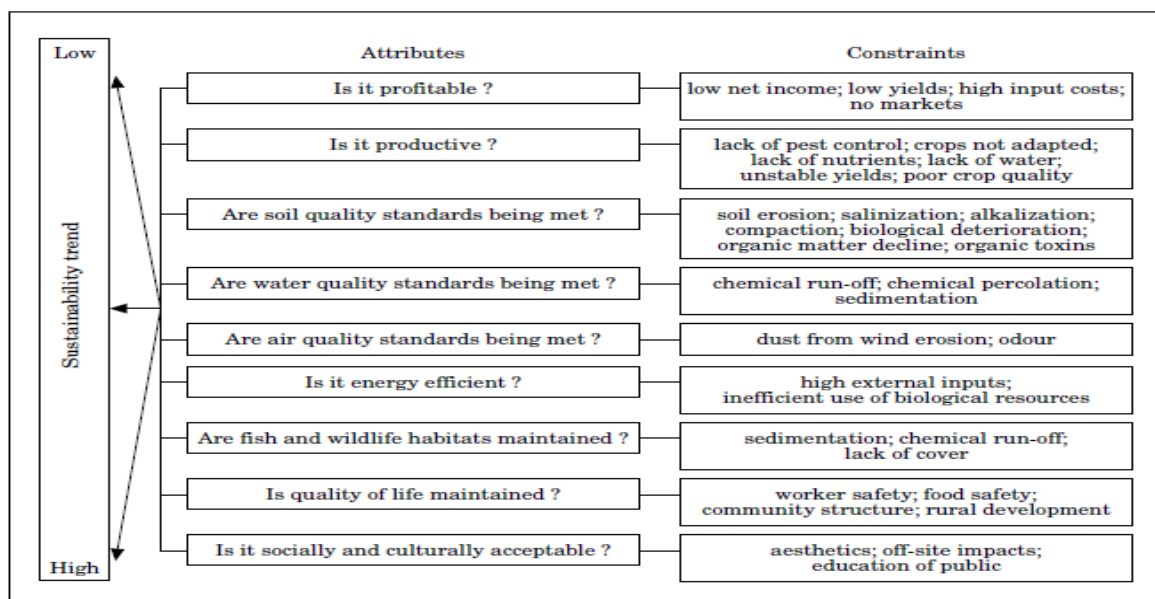


Table 2: Weighting characteristics for sustainability (Stockle *et al.*, 1994)

2.5.1 Sustainability Indicators in Agriculture

Sustainability indicators are the most commonly used method of sustainability evaluation within the literature. In a conceptual approach, sustainability indicators fit within the model of sustainability as a concept of agriculture. There can be multiple quantitative and qualitative indicators in an assessment (Smith and McDonald, 1998). According to Smith and McDonald (1998), sustainability indicators in agriculture can be reflected on many levels depending on the scale that is being assessed. Scale refers to a location specific context, where the location can be anywhere from a specific field to the national or international environment (Hayati, 2017).

Aside from variable scales of application indicators may also fluctuate according to the directness of measurement and the timescale that measurements are conducted over, therefore indicators chosen for measurement will depend on what is being assessed (De Olde *et al.*, 2016, Gaviglio *et al.*, 2017, Hayati, 2017, Janker and Mann, 2018, Latruffe *et al.*, 2016, Schindler *et al.*, 2015, Smit and Smithers, 1993, Smith and McDonald, 1998). For each aspect of sustainability, there is a broad range of associated factors that need to be incorporated into the individual concepts that are represented in Figure 2 (Ochieng *et al.*, 2013).

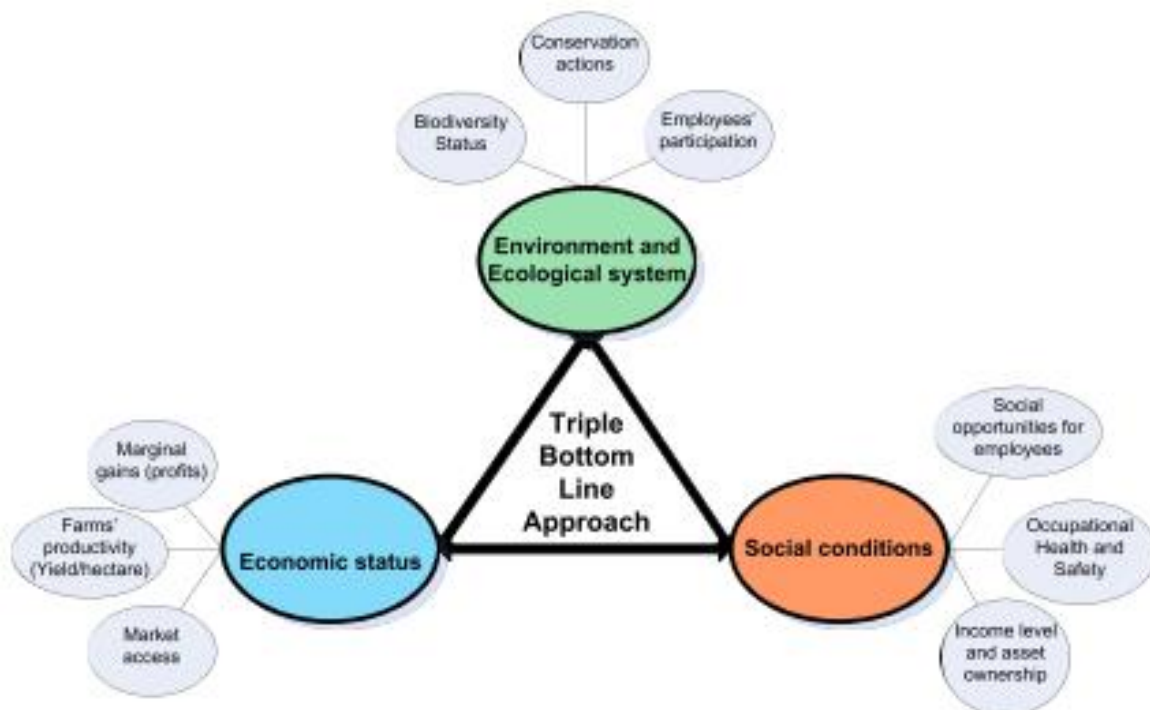


Figure 2: Conceptual framework for determining sustainability in agriculture (Ochieng, Hughey and Bigsby, 2013)

2.5.2 Biophysical (environmental) Indicators in Sustainable Agriculture

There are many biophysical indicators, and a wide range of them can influence the sustainability of an agricultural system. Biophysical indicators can be divided into on-site biophysical indicators and off-site biophysical indicators (Smith and McDonald, 1998). These aspects however fall outside the scope of this study.

2.5.3 Economic Indicators in Sustainable Agriculture

A wide range of economic indicators can influence the sustainability of an agricultural system. Aspects such as profitability is a factor in determining agricultural sustainability in commercial agriculture (Smith and McDonald, 1998). The salient point regarding profitability is that profitability in agriculture should not occur at the expense of the system, both biophysical and social (Smith and McDonald, 1998). These aspects also fall outside the scope of this study, hence was not covered in significant detail here (similarly to biophysical/environmental indicators).

2.5.4 Social Indicators in Sustainable Agriculture

This is the aspect of sustainable agriculture that this research focused on. Social sustainability in agriculture relates to, amongst others, the quality of life for farm workers and tenants as well as the local community who reside close to the farm, fair treatment of agricultural employees and positive farm family relationships. Socially sustainable agriculture is also viewed from the standpoint of providing a safe and equitable existence for the farmer and his/her family (Darnhofer, Fairweather and Moller, 2010, Latruffe *et al.*, 2016, Van Cauwenbergh *et al.*, 2007).

Changes in the skill sets of farm workers, managers and landowners in environmental practices, financial management and agricultural techniques were identified by Smith and McDonald (1998) as indicators of social sustainability in agriculture. The quality of life of the farmer and his/her family, labour conditions, conflict with wildlife and farm continuity were identified as essential indicators of on-farm socially sustainable agriculture by farmers in Western Europe (Bernués, Tello-García, Rodríguez-Ortega and Casasús, 2016). Labour hours and income per

labour hour were also highlighted as important indicators of social sustainability in agriculture (Lehtonen *et al.*, 2005).

Six indicators relating to the social sustainability at the farm household level were determined by Bournaris and Manos (2012). These indicators are total family income, total labour employed in all farming activities, the total number of members from each family involved in agriculture, total external labour employed on farms, male labour and female labour. Changes in wages and job opportunities can potentially have favourable or adverse effects on the age and gender profile of rural communities that in turn have effects on social cohesion, social inclusion and social capital (Bournaris and Manos, 2012).

Källström and Ljung (2005) found that the social dimensions of agricultural development are critical to developing sustainability in this sector. Three key indicators that can be used to help determine social sustainability in the agricultural sector are:

1. Contact with individuals not involved with, or external to, the organisation an individual belongs to, external contact indirectly points to working hours and paid leave.
2. Having an influence (or feeling that one has an influence) on decisions that affect one's livelihood.
3. Recognition of work done and contributions made to society.

These indicators show that recognition, appreciation, equal treatment (equality), as well as love and care, are essential attributes in creating and maintaining socially sustainable agricultural systems (Källström and Ljung, 2005). Being recognised as an individual, feeling that one is treated with equality in society, having a particular skill and feelings of belonging to a particular group are essential aspects of creating a socially sustainable agricultural system (Källström and Ljung, 2005). These indicators fit well with literature studied as these themes are repeated.

Ochieng *et al.* (2013) identified eleven indicators of social sustainability for employees on tea producing agricultural units in Kenya. The indicators emphasise employee working conditions and community wellbeing; they are:

1. Employees living in a three-room house
2. Health care services are provided to employees
3. Employees have access to safe drinking water

4. Access to water is close to the employee's house
5. The primary source of fuel for cooking is firewood
6. Existing policy against child labour
7. Farm ownership/support of local school
8. Employee is a member of a worker's union
9. Employees trained in workplace safety and other duty-specific issues
10. Provision of personal protective equipment
11. Received pay greater than or equal to minimum wage rate.

It appears that indicators associated with developed countries differ significantly from indicators of socially sustainable agriculture in developing countries (De Olde *et al.*, 2016, Gaviglio *et al.*, 2017, Hayati, 2017, Latruffe *et al.*, 2016, Ochieng *et al.*, 2013, Schindler *et al.*, 2015, Smith and McDonald, 1998, Van Calker *et al.*, 2005, Van Cauwenbergh *et al.*, 2007). Far more emphasis is placed on the lifestyle and wellbeing of the farmer and his/her family in indicators used to determine socially sustainable agriculture on Western commercial farms. However, in developing countries (particularly in Africa) indicators about employee working conditions and community well-being are more prevalent, and there is little to no discussion surrounding sustainable social aspects of the farm owner and his/her family. In the context of this research a reductionism approach was adopted for on-farm internal agricultural sustainability as only a few indicators are used to measure a whole system (Schindler *et al.*, 2015). Therefore, only on-farm internal social sustainability indicators that relate to the physical and physiological well-being of employees were examined.

Additional indicators of sustainable social agriculture are listed in Figure 3 on the following page (Vasileiadis, Moonen, Sattin, Otto, Pons, Kudsk, Veres, Dorner, van der Weide, Marraccini, Pelzer, Angevin and Kiss, 2013). The white boxes are comprehensive indicators, and the light grey boxes are basic indicators. Twenty-eight basic indicators are listed in Figure 3 that are combined with sixteen comprehensive indicators, which build up to social sustainability.

From Figure 3 it can be seen that the three most important ways that maize-cropping systems affects or depends on society are through labour, access to materials and knowledge and interaction with society (Vasileiadis *et al.*, 2013). Comprehensive and basic indicators are included under labour that can give information about labour health, employment, pay and job satisfaction. Both basic and detailed indicators fall under access to material and knowledge.

This section can provide information relating to how quickly a crop is produced and sold. Interaction with society provides information on how the agricultural unit interacts with off-farm societal needs such as the aesthetics of the landscape and the quality of the final agricultural product as perceived by the consumer (Vasileiadis *et al.*, 2013). However, in the course of this research just on-farm internal social sustainable agriculture is studied. Therefore, indicators that only affect the fairness of labour and certain aspects of access to material knowledge in Figure 3 are important in this research context. These are indicators such as health and safety of workers, workers role in decision making within a company, hardness and repetitiveness of work and levels of pay. Indicators under access to knowledge would be on-farm skills such as training and levels of education as well as access to inputs such as availability of support services and relevant advice. These indicators have been highlighted as having an impact on on-farm internal agricultural social sustainability.

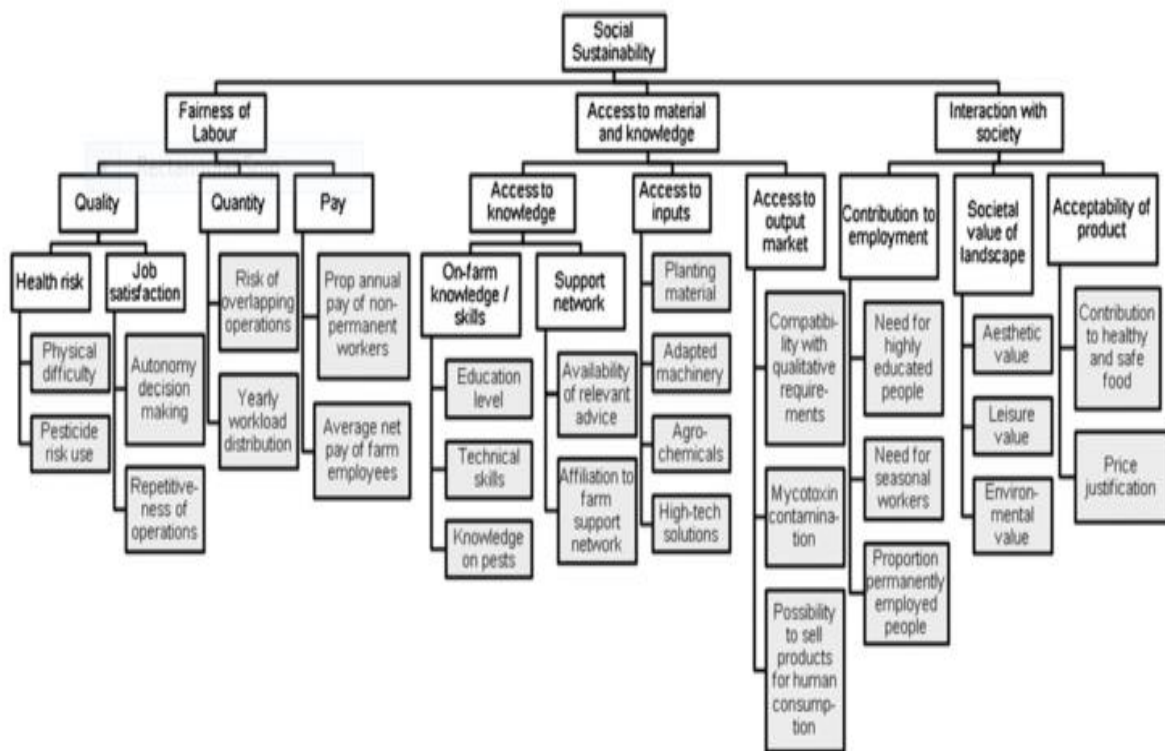


Figure 3: Social sustainability tree used to determine social sustainability of maize based cropping systems in Europe (Vasileiadis *et al.*, 2013)

According to Janker and Mann (2018) and Hayati (2017) the selection of indicators must be regarded as a procedure. The specific goals of the research and the necessary framework need to be carefully acknowledged and defined. Indicators that may be useful in one setting may not apply to research conducted in a new location as both cultural and geographical conditions

influence the importance of specific indicators. Indicators that are chosen must reflect, as closely as possible, the situation in a specific environment (Yli-Viikari, 1999).

In the case of this research, a variety of quantitative and qualitative indicators are examined, and many characteristics that are believed to impact the sustainability of the system are acknowledged and quantifiable indicators recognised for each. A framework (pg. 33) was used to quantify which characteristics were examined. Only those indicators that influence on-farm internal social sustainability were examined.

2.6 Agriculture Social Sustainability, South African Context, the need for this research

The *Standard Industrial Classification of all Economic Activities (SIC)* states that, South African industries can be divided into six subsections (Labuschagne, Brent and Claasen, 2005a). These sub-sections are forestry, agriculture and fisheries; quarrying and mining; water and electricity; tertiary and construction sectors.

Commercial agriculture in South Africa is highly capitalistic with companies and corporations of various sizes controlling most aspects of the production process. According to Mather (2007) capitalistic patriarchal commercial agriculture appears to have exacerbated the numerous social issues that have been inherited from the colonial and apartheid legacy. In the South African context, the social portion of sustainability must be interpreted in the context of apartheid and the need for equity and redress (Mather, 2007). The South African agricultural industry has also been associated with human rights violations as well as unsustainable social practices and the exploitation of farm workers (Muller *et al.*, 2012a).

In the South African Department of Agriculture discussion document on sustainable agricultural development (DoA, 2004), agriculture was set to play a critical role in sustainable development and poverty eradication in the South African context.

A major challenge identified by the document is bringing about a society that is ecologically sustainable, socially equitable and materially sufficient and is motivated by satisfying human needs and brings about equity in resource allocation and use. The document identified the protection of agricultural workers' and their families' livelihood and well-being as a high priority area. The agricultural sector was also identified as being of vital importance to improving the general health of South Africans, making significant inroads in the eradication of poverty in the country, reducing unemployment and of creating a more equitable society.

Social sustainability is interpreted within the framework of human welfare and the equality of its distribution (Yli-Viikari, 1999). There are two broad groups regarding social sustainability in agriculture: internal and external social sustainability (Van Calker *et al.*, 2005, Van Cauwenbergh *et al.*, 2007).

Internal social sustainability (at farm level) refers to the physical and psychological well-being of the farmer's family and the workforce. Whereas physical well-being relates to working conditions and health and psychological well-being refers to issues such as gender equality, education, integration and participation in society, feeling of independence and access to infrastructure and activities. External social sustainability (societal level) of sustainable agriculture relate to food safety and security, socially acceptable farming practices and cultural goods (Van Cauwenbergh *et al.*, 2007).

Labuschagne, Brent and Van Erck (2005b), stated that a social sustainability framework could be used to measure internal aspects of social sustainability that focus on a company's social responsibility to its workers. This social sustainability framework is comprised of the following categories. Four internal categories (i) *Employment stability*, (ii) *Employment practices*, (iii) *Health and safety* and (iv) *Capacity development*. Three external population categories (i) *Human capital*, (ii) *Productive capital*, (iii) *Community capital*. Two Stakeholder participation categories (i) *Information provision* and (ii) *Stakeholder influence*. Two Macro Social Performance categories (i) *Socio-economic performance* and (ii) *Socio-enviro performance*. The various categories are outlined in Figure 4 on page 31.

Labuschagne *et al.* (2005b) explained the four categories that affect the internal human sustainability or the social factors that have an impact on a company's workforce as follows:

- Employment stability addresses a business's initiatives that seek to create and stabilise work opportunities within a company as well as assessing the fairness of remuneration.
- Employment practices relate to employee disciplinary practices and contracts, as well as the legitimacy of labour sourcing and gender and racial equity in a company.
- Health and safety emphasise the health and security of the workers and can be used to assess incidents as well as preventative measures and the management of health and safety practices.
- Capacity development is used to address research and development, which consists of two criteria: (a) evaluating company research and development to create sustainable

products and innovation as well as, (b) employee training and career development through higher-education opportunities and career guidance.

The external factors that affect a company's social sustainability are split between the external population and macro-social performers (Labuschagne *et al.*, 2005b).

From the literature it appears that all of the categories highlighted in Figure 4 on the following page are important to achieve social sustainability. However, in the course of this research, only the four categories that effect on-farm internal social sustainability in the company in question will be examined.

Janker and Mann (2018) showed that as the background and objectives of the tools used to determine sustainability differed so too did the understanding of which contents should be incorporated into social dimensions and how the topic of social sustainability should be operationalised. According to Janker and Mann (2018) the objectives of a tools developer must be seen as more central than what "social sustainability" actually means because tools used to measure social sustainability often lack a concrete definition of the subject and stringent application processes.

In this research only indicators that influenced internal on-farm social sustainability were examined and these related to the actual work environment in the company because less than one percent of the workforce live on the farm. Therefore, only factors that are determined to affect the physiological and physical well-being of the workforce on site are studied.

According to the literature studied, factors that affect the physical and physiological well-being of employees and hence on-farm internal social sustainability, within the remit of this research, are security of work, remunerations, health and safety, training, workers representation, discrimination and equity, working conditions and involvement in decision making (Janker and Mann, 2018, Källström and Ljung, 2005, Labuschagne *et al.*, 2005b, Ochieng *et al.*, 2013, Van Cauwenbergh *et al.*, 2007).

These particular on-farm internal social sustainability indicators, identified in the literature, fit well with the Barrientos and Visser (2013) framework (Table 4 on page 33) of observed indicators of social upgrading. This framework was developed in an attempt to measure the impact of global production networks and global value chains (globalisation) on agricultural workers in the South African horticultural industry in the Western Cape. This framework was

itself developed from the Barrientos *et al.* (2011) social and economic upgrading framework developed for the Moroccan garment industry shown on page 33 in Table 3.

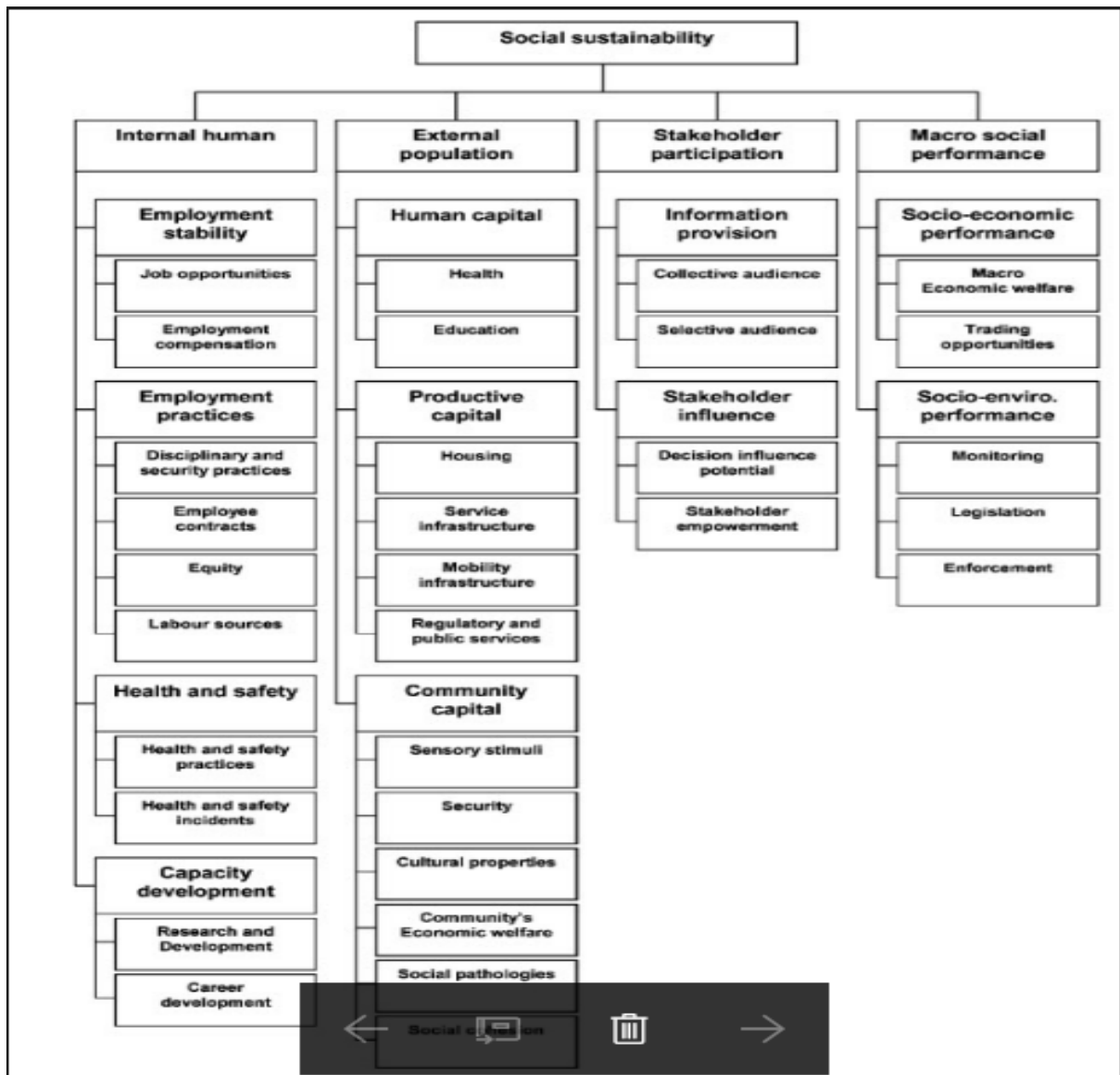


Figure 4: Labuschagne et al. (2005b) social sustainability framework

Barrientos *et al.* (2011) created a framework to assess the impact of globalisation on social upgrading in the garment industry in developing countries, which is shown in Table 3 on the following page. Barrientos and Visser (2013) adapted the framework shown in Table 3, and created a new framework (Table 4 on the following page). This framework was used to assess social upgrading in the horticultural industry (both in the lands and in the factories) in the Western Cape Province of South Africa. This framework focused on two critical aspects of workers' wellbeing: Measurable Standards and Enabling Rights. Measurable standards are broken down into contracts, wages, safety and health. Enabling Rights (Empowerment

Standards) are used to determine levels of discrimination, decision-making roles within the business and freedom of association. The framework of Barrientos and Visser (2013) was chosen as an appropriate framework for this study by the researcher as it was applied in a field closest to this research, the indicators (aspects) highlighted in the chosen framework are very similar to on-farm internal social sustainable indicators that affect the physiological and physical well-being of workers that have been previously highlighted in the literature and are shown in Table 5 on page 34.

Measurable standards	Wages	Payment of at least the minimum wage to all workforce
	Physical wellbeing	Observed improvements in working environment and health and safety standards (e.g. heat, ventilation, comfort in working position, number of accidents, etc.)
		Reduction in systematic excessive overtime
	Employment and income security	Written contracts, reduced incidence of temporary and casual contracts
Registration to the CNSS of the entire workforce		
Enabling Rights	Dignity and empowerment	Improved social climate, i.e. improved communication between management and workers, perception of a good trusting relationship
		Reduction in the incidence of harsh treatment
		Non discrimination against different types of workers
		Improved freedom of association

Table 3: Empirical indicators of social upgrading (Barrientos, Gereffi and Rossi, 2011)

Measurable standards	Contracts
	Wages
	Benefits
	Health and Safety
	Well-being
Empowerment standards	Communication with management
	Adequate representation
	Levels of discrimination
	Levels of harsh treatment
	Decision-making role within the business

Table 4: Indicators of social upgrading in the Western Cape Horticultural industry (Barrientos and Visser, 2013) framework

From the literature there appears to be strong links between those aspects discussed by Barrientos and Visser and indicators of on-farm internal social sustainability recognised by other authors in various frameworks previously used to determine social sustainability.

name	Indicator in Chosen framework	Indicator on-farm internal social sustainability	Author
MEASURABLE STANDARDS	Contracts	Job security	Brown <i>et al.</i> , 1987
		Employee contracts	Labuschangne <i>et al.</i> , 2005
		Employment stability	Labuschangne <i>et al.</i> , 2006
	Wage	Salary	Hrebucek <i>et al.</i> , 2013
		Income greater or equal to minimum wage	Ochmeng <i>et al.</i> , 2013
		Salaries to workers	Herzog and Gotsch, 1998
	Benefits	Social Security	Ham <i>et al.</i> , 2006
		Quality of Life	Latruffe <i>et al.</i> , 2016
		Access to social infrastructure and services	Van Cauwenbergh <i>et al.</i> , 2007
	Health & Safety	Working conditions	Van Calcker <i>et al.</i> , 2006
		Safety and Health	Hrebucek <i>et al.</i> , 2013
		Physical Health	Latruffe <i>et al.</i> , 2016
	Well-Being	Social engagement	Hrebucek <i>et al.</i> , 2013
		Support System	Waney <i>et al.</i> , 2014
		Well-being	Latruffe <i>et al.</i> , 2016
EMPOWERMENT STANDARDS	Communication Management	Employee relationship and management	Jancker and Mann, 2018
		Co-operation between Farmers and stakeholders	Yli-Vuokari, 1999
		Communication and partnership between stakeholders	Müller <i>et al.</i> , 2012
	Adequate Representation	Unions	Roboredo <i>et al.</i> , 2016
		Representation of stakeholder groups	Schneider <i>et al.</i> , 2015
		Workers right to organise	Ochmeng <i>et al.</i> , 2013
	Discrimination	Equality	Zhen and Routray, 2005
		Social and Gender equity	Jancker and Mann, 2018
		Fairness by managers	Jancker and Mann, 2018
	Harsh Treatment	Forced labour	Jancker and Mann, 2018
		Labour intensity	Jancker and Mann, 2018
		Discrimination at work	Jancker and Mann, 2018
	Employee Decision Making	Worker participation	Hrebucek <i>et al.</i> , 2013
		Participation in decision making	Chen, 2000
		Stakeholder decision making	Schneider <i>et al.</i> , 2015

Table 5: Indicators of social upgrading framework (Barrientos and Visser, 2013). With supporting agricultural social sustainability indicators Hayati (2017) and various other authors and frameworks.

As previously highlighted, Table 5 shows similar themes between indicators of on-farm internal social sustainability, identified by various authors, and the chosen framework of Barrientos and Visser. Therefore the Barrientos and Visser framework was chosen for this study because it incorporates a wide range of on-farm internal social sustainable indicators that have been highlighted by numerous authors. The chosen framework is therefore the most comprehensive framework for this research as it examines all indicators that are applicable to on-farm internal social sustainability in the context of this research.

2.7 Conclusion

This chapter attempted to provide an overview of sustainability and agricultural sustainability with reference to various authors. An overview of agriculture was given and the link between on-farm social sustainability and social upgrading was explored (Janker and Mann, 2018, Ochieng *et al.*, 2013, Smit and Smithers, 1993, Smith and McDonald, 1998, Van Cauwenbergh *et al.*, 2007).

In the context of this research only on-farm internal social sustainability indicators that affect the physical and physiological well-being of the company workforce were examined. Therefore for this research, the Barrientos and Visser (2013) framework has been utilised to determine which aspects of on-farm internal social sustainable indicators identified in the literature are present in the company in question. This framework was the most relevant to this study as it has been utilised successfully under similar social conditions to those prevalent at the company at the centre of this research and it incorporates all of the on-farm internal social sustainable aspects that have been identified in the literature (Barrientos *et al.*, 2011, Labuschagne *et al.*, 2005b, Ochieng *et al.*, 2013, Van Cauwenbergh *et al.*, 2007). The Barrientos and Visser (2013) framework includes important aspects that are highlighted in other frameworks but excludes aspects that are not applicable to this research.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Centred on the results of the literature review in the previous chapter this research attempts to identify, from the chosen framework, which indicators of on-farm internal agricultural social sustainability occurred in the privately owned agri-processing facility based near Bathurst in the Eastern Cape Province. This chapter begins by outlining the research objectives of this study. Based on these objectives, the chosen methodology for this research is then explained and includes research design, data collection, potential limitations, and ethical considerations.

There are three research objectives:

Objective 1: Identify which aspects of on-farm internal social sustainability from the framework occur in the company

Objective 2: Critically evaluate the indicators of on-farm internal social sustainability identified in objective one and discuss the challenges relating to those that are not implemented

Objective 3: Make recommendations to improve on-farm internal social sustainability in this company.

3.2 Research Design

This research was conducted at a privately-owned pineapple processing facility located close to Bathurst in the Eastern Cape Province of South Africa. The seventy-five isiXhosa-speaking individuals who work in the factory comprise the population for this study. The sample was thirty consenting employees who were individually interviewed.

The research was conducted in a post-positivist paradigm. According to Taylor and Medina (2013), a paradigm is a framework or worldview that can be used as a conductor of investigation and practice in a particular field. A paradigm comprises a view of the nature of reality (the ontology), the type of information that is generated and the principles for qualifying it (the epistemology) and the methodology producing the information (the methodology) (Taylor and Medina, 2013).

The post-positivist paradigm is derived from positivism, which according to Cohen, Manion and Morrison (2013) is a general doctrine that all factual knowledge is originated on scientific experience and can only be advanced using reflection and research. Positivism claims that

science can provide the purest conceivable model of knowledge (Cohen *et al.*, 2013). However, in the study of human behaviour, where the complexities of human nature and the intangible properties of social phenomena differ vastly from the order of the natural world, positivism is less efficient as a paradigm (Cohen *et al.*, 2013). Post-positivism follows the same principles as positivism but allows for more interaction between the researcher and participants; this method can utilise both qualitative and quantitative approaches and is a scientific means adapted for social science (Taylor and Medina, 2013).

The methodology used in this research was quantitative and purposive sampling was performed (Tongco, 2007, Hopkins, 2008). Purposive sampling was used as information relating only to employees within the facility in question was interrogated. The study took the form of a case study as only the experience of the employees was examined. However, the method used was evaluation research (Trochim and Donnelly, 2001) as the information obtained was evaluated against the framework identified in the literature review. Data were analysed using simple descriptive statistics. The data obtained is not generalizable and pertains only to this facility.

3.3 Data Collection

Initially, a pilot study was undertaken to inform the focus of the structured, one-on-one interviews (Appendix I), the chosen data gathering method of this study. The pilot interviews included open-ended questions in a semi-structured interview format with five randomly selected staff. The pilot was intended to probe indicators of on-farm internal social sustainability in the agricultural sector identified in the literature to help guide the focus of the close-ended questions for the structured interviews.

All interviews were conducted in isiXhosa, with the use of a reliable and experienced independent interviewer and took place during working days in October 2017. According to King (1994), structured interviews are most appropriate when factual information is being collected. The structured interviews consisted of close-ended questions designed to elaborate the results of the pilot interviews using an odd-numbered Likert scale (Boynton and Greenhalgh, 2004). The structured questions and straightforward nature of the Likert scale aided in limiting biases and misinterpretation of the data. No attempt was made to collect rich in-depth data as only the thirty employees' view of the presence or absence of selected indicators were recorded. The questions for the interviews were translated into isiXhosa and then back into English, by a competent translator. The researcher instructed the interviewer in the process of the individual interview method and the collection of responses. The interviewer

is a highly respected member of the Port Alfred community. He is a recently retired district school inspector who holds a high-profile position in the local Methodist church. He has extensive experience in academic research having conducted and been involved with research initiatives while fulfilling his role as a school inspector. The interviewer's home language is isiXhosa and he has a long history of community engagement and social activism. The interviewer was tasked with explaining the purpose of the interview to the participants. An assurance of anonymity was given to respondents by the interviewer before each session.

3.4 Potential Limitations

Some potential limitations of the study were identified by the researcher namely a response bias of participants to the interviewer, the location of the structured interview (taking place at work), the associated proximity of management to the research, non-generalizable results of the research and the translation of English into isiXhosa and back again. To reduce the potential limitations, the researcher sought to involve an experienced and well-respected interviewer who should elicit honest responses from the participants. The interviews were conducted in a small comfortable staff coffee room where no disturbances occurred, and a first language isiXhosa speaker was used to conduct the interview. Management was not present when any of the participants were entering the interview room or leaving it. The researcher is aware that the results of this research are not generalizable and will pertain only to the facility in question.

3.5 Ethical Considerations

Ethical considerations should be acknowledged and are fundamental to the research process. In this enquiry, ethical clearance for the research was obtained from Rhodes Business School's internal Ethics Committee and written permission to carry out the study was obtained from the owner of the facility. The researcher is a member of the management at the facility in question and didn't participate in the actual interview process. The independent interviewer played a significant role in ensuring that all participants were comfortable during the structured interviews (Taylor-Powell, 1998).

The managing director of the company engaged with the democratically elected factory representative committee and explained the purpose of the interviews in isiXhosa. The committee then, in turn, explained the purpose of the structured interviews to the staff of the processing facility. When participants agreed to be involved in the research project, they were required to confirm their voluntary participation through the use of a tick box that was captured

both on the interview data sheet and consent form. Any concerns raised by the participants were noted and recorded, and those unwilling to participate were accommodated. The researcher made it a priority to respect the privacy and confidentiality of the participants.

3.6 Conclusion

This chapter underlined the methodological aspects relevant to this research, including research objectives, research design, data collection, potential limitations, and ethical considerations.

CHAPTER FOUR: RESULTS AND DATA ANALYSIS

4.1 Introduction

The objectives of this chapter are:

- to give a synopsis of the results of the data obtained from the pilot interviews within the context of the adapted Barrientos and Visser (2013) framework developed in chapter two;
- to give an account of the results obtained from the individual interview.

4.2 The Pilot Interviews

The results of the pilot interviews showed that the research fits within the parameters of the Barrientos and Visser (2013) framework used in this research. Both measurable and empowerment standards, as in the framework, were included in the pilot study. The results of the pilot interviews indicated that the questions asked were a good fit to the relevant framework and hence were suitable in the research of on-farm internal socially sustainable agriculture.

4.3 Individual Interviews

The data obtained from the pilot study corresponded well with the adapted framework chosen for this research, therefore limited changes needed to be made to the schedule of the individual interviews. The individual interviews (Appendix 2) took place during working hours in October 2017. The interviewer asked for groups of five volunteers at a time. Each individual interview took approximately twenty minutes to complete. Of the seventy-five employees, thirty were willing to be interviewed.

The adapted framework of Barrientos and Visser (2013) mapped well with the main data collected from the individual interviews.

1. **Measurable standards** (contracts, wages, benefits, and health and safety)
2. **Empowerment standards** (levels of discrimination, decision-making roles within the business, levels of harsh treatment, communication with management and representation).

The Barrientos and Visser (2013) framework showed that for there to be social sustainability in agriculture in the South African context certain requirements must be met. These include

Measurable Standards such as receiving at least the subscribed sectoral minimum wage, the issuing of contracts, work benefits that include a provident fund, employees feeling safe and secure on the worksite and employee emotional well-being. Also, Empowerment Standards such as low levels of discrimination and harsh treatment, adequate representation, good communication with management and a sense of being involved in the decision making process in the company. All results are displayed under relevant headings in frequency tables in Appendix 3.

4.4 Measurable Standards

4.4.1 Contracts

The results showed that the company did contract all employees and that the majority of employees understood their contracts.

- All employees interviewed indicated that they had contracts of employment.
- Nineteen employees agreed that the contracts had been explained sufficiently to them, four strongly disagreed and seven were uncertain. Fifteen employees interviewed agreed that their contracts were easy to understand, thirteen did not fully understand the content of their contracts, two were unsure.
- Eleven employees disagreed that their contracts secured their work, while twelve agreed and seven were undecided. Thirteen employees agreed that they understood their legal rights as workers, nine were unsure while eight disagreed.
- Eighteen employees disagreed that the South African labour regulations regarding farm workers had been sufficiently explained while twelve agreed. Twenty-three disagreed that the regulations were readily available to them as required by law, six agreed, one employee was uncertain.

4.4.2 Wage

The results showed that the company paid at least the sectoral minimum wage to employees.

- Twenty-five employees agreed that they were paid at least the minimum wage while three disagreed and two strongly disagreed. Sixteen employees agreed that they received a higher wage than the minimum wage while five were undecided and nine employees disagreed.

- Twenty-nine employees agreed that they worked overtime for the company when needed, with one disagreeing. Twenty-five employees agreed they were remunerated correctly for overtime worked, two were unsure and three disagreed. Seventeen employees felt that the overtime was fair, three were undecided and ten disagreed.
- Twenty-six employees agreed that they received payslips with two undecided and two disagreeing. Three employees disagreed that the payslips were explained if there were questions; one was undecided and twenty-six agreed.

4.4.3 Benefits

The results showed that the company provided transport for employees as well as small interest-free loans and a voluntary savings plan. The company has a provident fund in place.

- Twenty-nine employees agreed that they received free transport to work with one disagreeing.
- Seventeen employees agreed that small interest-free loans were granted to employees while four employees disagreed and nine were uncertain. Twenty-seven of the employees agreed that the company should help with small loans while two were uncertain and one disagreed.
- Twenty-eight employees agreed that the company helped to initiate a savings plan for them.
- Twenty-seven employees agreed that the company provided a provident fund, twenty-six of the employees agreed that they were members of this fund with three disagreeing and one uncertain.
- Twenty-seven employees indicated that the company does not provide funeral cover, three were unsure.
- Twenty-six employees agreed that they would be willing to contribute financially to the policy, one disagreed and three were uncertain.

4.4.4 Health and Safety

The results showed that the company did not provide a safe working environment for employees.

- Seventeen employees disagreed that the work environment was safe, with only six agreeing that they worked in a safe environment and seven employees were uncertain.

- Twenty-two employees felt that they would be attended to quickly if there was an injury on duty and all of the employees agreed that there were trained first aiders on site and that they knew the name of the first aiders.
- Twenty-eight employees agreed that there was a mobile clinic available to them once a month at work and twenty-two knew that it was staffed by a registered nurse.
- Twenty-six employees indicated that the mobile clinic should be available to them more than once a month.

4.4.5 Well-being

The results showed that the company did not provide debt counselling and budgeting workshops for employees.

- Twenty-seven of the respondents agreed that the company should provide debt counselling workshops and all employees agreed that the company should provide budgeting workshops.
- Twenty-nine employees agreed that the company should provide family planning workshops with one employee uncertain.
- All employees agreed that it was important for the company to provide family relationship workshops.
- All employees agreed that the company should provide domestic violence workshops and stress management workshops.
- One employee disagreed that the company should provide depression management workshops while one employee was uncertain, and twenty-eight employees agreed that the company should provide this workshop.
- Twenty-nine employees agreed that the company should provide child abuse counselling, general counselling and work-related training to improve skills.
- Twenty-nine employees agreed that the company should provide a social worker on site once a month.
- The twenty-three employees indicated that it was easy to find a crèche for their children in the area where they lived; six indicated that it was difficult with one being unsure. Fifteen employees agreed that the company should help fund a crèche, eight were unsure as seven of them disagreed. Twenty-three agreed that they would be able to give more attention to work if a crèche was available; five disagreed and two were unsure.

4.5 Empowerment Standards

4.5.1 Communication with Management

The results showed that the company communicated with employees.

- Seventeen employees agreed that management listens to them; twelve employees disagreed with one employee uncertain.
- Fourteen employees agreed that management communicated with them regarding issues of discipline while eleven disagreed and five were uncertain.

4.5.2 Adequate Representation

The results showed that the employees at the company felt that they were adequately represented.

- Twenty-four employees agreed that the workers' committee represented their needs well while five employees disagreed with this statement and one was uncertain.

4.5.3 Discrimination

The results showed that the majority of workers felt that there was some level of discrimination in the company.

- Fifteen employees agreed that work opportunities in the company were fair and seven disagreed with the statement and eight were undecided.
- Sixteen employees disagreed that all people were treated the same at work, seven agreed with the statement and seven were undecided.
- Ten employees agreed that promotions were available to everyone at work while nine were undecided and eleven disagreed.

4.5.4 Harsh Treatment

The results showed that the majority of employees in the company felt that they were treated harshly. It must be noted that there is a lack of a clear description of the term "harsh" in the chosen framework.

- Eight employees agreed that management treated them fairly at work, nine were undecided and thirteen disagreed. Thirteen employees agreed that disciplinary meetings were fair, six were undecided and eleven disagreed.

4.5.5 Employee Decision Making Role

The results showed that the employees in the company did not have decision making roles.

- Nine employees agreed that workers had a say in how the company operated, four were undecided and seventeen disagreed.
- Four employees agreed that management would listen to suggestions made by them regarding the work environment, ten were undecided on the statement and sixteen disagreed.

4.6 Conclusion

The objectives of this chapter were as follows:

- to give a summary of the results of the data obtained from the pilot interviews within the context of the chosen framework developed in chapter two;
- to give an account of the results obtained from the individual interviews compared to the relevant framework described in chapter two.

The pilot interviews showed that the research fits within the parameters of the Barrientos and Visser (2013) framework used in this research and very few changes needed to be made to the questions for the one-on-one interviews.

The results of the one on one interviews indicated that the company:

1. Contracted all employees and that the majority of employees understood their contracts.
2. Paid at least the sectoral minimum wage to employees.
3. Provided transport for employees, small interest-free loans, a voluntary savings plan as well as a provident fund.
4. Did not provide a safe working environment for employees.
5. Did not provide debt counselling and budgeting workshops for employees.

The results of the one on one interviews further showed that the employees felt that:

1. The company communicated well with them
2. They were adequately represented.
3. There were forms of discrimination
4. They were treated harshly.
5. They did not have decision-making roles.

CHAPTER FIVE: DISCUSSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of this chapter is to reflect on the results of chapter four. Firstly, the indicators of on-farm internal social sustainability in a South African context that are in operation at the company in question are identified. Secondly, those aspects of social sustainability identified are critically evaluated, and the challenges relating to those that have not been implemented are discussed. Finally, recommendations to improve the social sustainability of the company in question are made.

5.2 Indicators of on-farm internal Social Sustainability

1. **Measurable standards:** These include contracts, wages, benefits, well-being and health and safety
2. **Empowerment standards:** These include levels of discrimination, decision-making roles within the business, levels of harsh treatment, communication with management and adequate representation.

5.3 Measurable Standards

5.3.1 Contracts

From the literature reviewed in chapter two, contracts are identified as an indicator of on-farm internal social sustainability (Hayati, 2017, Labuschagne *et al.*, 2005b, Vasileiadis *et al.*, 2013). In the context of the framework used for this research, it was evident that employees at the company in question had contracts and that the majority of workers understood the content of their contracts and considered that the contracts added to their job security. Therefore, one of the indicators used to determine social sustainability in agriculture in the South African context as specified in the Barrientos and Visser (2013) framework was present at the company in question.

5.3.2 Contract Recommendations

The company should, however, take time to explain the content of the contract to each employee fully and to ensure that they are aware of their legal rights as employees. Unless employees fully understand their contracts and are aware of their rights as employees then the contract has little meaning for the employees (Abella, Gächter and Tschank, 2014). It may be

necessary to employ a translator to facilitate this. Employees should be made aware of the location where the South African regulations regarding farm workers are displayed at the company, and the management should take the time to explain the regulations or to engage an outside source trusted by the employees to explain the regulations.

5.3.3 Wages

Wage levels are identified in the literature in chapter two as an indicator of social sustainability, adherence to the sectoral minimum wage can be used as an indicator of agricultural social sustainability (Hayati, 2017, Labuschagne *et al.*, 2005b, Ochieng *et al.*, 2013, Vasileiadis *et al.*, 2013). There has been an increased discussion concerning the appropriate level of a minimum wage in South Africa (Van der Zee, 2017). From the individual interviews, it can be perceived that the company in question paid at least the minimum wage to employees as determined by the Department of Labour. The company provided the employees with accurate information regarding wages paid. Therefore, the indicator, used to determine social sustainability in agriculture in the South African context, wages, was present at the company in question. However, there was also evidence that suggested that not all employees fully understood the wage structure of the company and that some employees felt that they were not receiving the correct wages and that the company was hiding this from them by not providing and fully explaining payslips.

The company abides by the sectoral determination concerning the minimum wage and can, therefore, be viewed as moving towards a socially sustainable position when viewed through the lens of the Barrientos and Visser (2013) framework. However, there are counter-arguments that the current minimum wage in the South African agricultural sector is far below a sustainable living wage (Seekings and Natrass, 2015).

5.3.4 Wage Recommendations

The company in question should look at alternative means of increasing wages in real terms. This could be a profit share scheme, performance bonuses paid on reaching agreed targets or employing more individuals from the same family (household) to increase household earnings. Household income can be used to measure the level of poverty and average income levels (Landman, 2012). It is necessary to remember that an essential aspect of sustainability in any business is profit. Therefore, any increase in employee wage levels needs to be accompanied by a corresponding rise in production or productivity in the company. It would be appropriate

to study other companies involved with agri-processing in South and Southern Africa to help determine a possible path to increasing or ensuring sustainability in this aspect.

5.3.5 Benefits

Additional benefits for employees were identified in chapter two that are used as indicators of social sustainability in agriculture. Identified benefits include but are not restricted to:

1. Access to adequate housing (defined as a house with more than three rooms)
2. Access to potable water in the proximity of the house
3. The use of electricity as a primary source of fuel
4. Access to a company provided provident fund
5. Access to company provided funeral cover
6. Access to company provided low-interest loans to employees

(Barrientos *et al.*, 2011, Barrientos and Visser, 2013, Ochieng *et al.*, 2013).

As previously stated only on-farm internal social sustainable agricultural practices were examined. Over 95% of company employees reside off-farm and the fact that the company in question does not own any of the lands that employees reside on, resulted in issues concerning access to adequate housing, access to water and electricity falling outside the parameters of this study. By no means does this research wish to diminish the importance of these indicators by excluding them; rather it is to focus on on-farm issues of social sustainability that are directly relevant to this particular company, its environs and its workforce. In the framework, two indicators were defined under the heading of benefits, the presence of a provident fund for employees and funeral cover. From the individual interviews, it can be seen that:

A provident fund was available to all employees and the company in question did not provide funeral cover for employees. There is, however, potentially a need for such coverage to be organised and administered by the company.

Most South Africans will not have enough money available to them when they retire, and it is vital for individuals to ensure the correct approach to retirement savings through the use of an appropriate pension or provident fund (Levitan, Dolya and Rusconi, 2009). The company in question has an established provident fund for the employees. This fact meets one of the requirements for social sustainability as prescribed by the Barrientos and Visser (2013)

framework. However, the needs of the employees must be established with regards to this provident fund as individual retirement needs differ vastly (Levitan *et al.*, 2009).

5.3.6 Benefit Recommendations

Although the availability of a provident fund as an indicator of social sustainability was met, according to the Barrientos and Visser (2013) framework, the actual effect of the use of a provident fund on social sustainability in the context of this company needs closer examination. More research surrounding the application of provident funds in the agri-processing industry may be able to unlock meaningful data on the effectiveness of a provident fund in increasing social sustainability in this context.

The lack of a company funeral policy indicates that the company needs to seriously examine the feasibility of establishing a broadly affordable funeral cover for all employees. Death features very prominently in the lives of Africans, Lee (2011) with funerals being highly consumptive and conspicuous affairs that are very expensive. Death plays a large role in the social and financial affairs of ordinary African people and can have a substantial effect on a family's financial position (Lee, 2011). It is therefore crucial for the company to ensure that all of its employees have adequate funeral cover. Funerals appear to play an essential role in the community from where the employees are sourced. Time should be invested to determine if it is feasible for the company to institute a funeral policy.

An additional three indicators of employee benefits were recorded. These included access to small interest-free loans provided by the company; company provided transportation and a voluntary saving initiative. The individual interviews indicated that:

It was apparent that the company provided interest-free loans to employees and there was a need for these loans, but there appeared to be confusion surrounding this issue. The company provides free transport to work for all employees. When this was looked at in conjunction with the data available on where employees live it indicated that employees could live up to thirty kilometre from their place of work. This, by extension, allowed employees to choose where they lived (to an extent), but it could also add the burden of travelling time onto an employee. Consequently, some major indicators of social sustainability were present, which suggested that the overall indicator of benefits could be applied to the company in question.

5.3.7 Health and Safety

From the results of the individual interviews, it was deduced that only some elements of health and safety that were identified in the framework adapted from Barrientos and Visser (2013) were found to be present in the company in question.

A mobile clinic, with a registered nurse, was available to the employees once a month; this meets one of the indicator requirements for health and safety that is set out in the Barrientos and Visser (2013) framework. The services that are available at the mobile clinic need to be interrogated, and the needs of the employees determined to see if there is sufficient overlap between services provided and employee needs. Employees are confident that they would receive care on site quickly if they were injured while on duty and that there are trained first aiders on site. The quality and speed of service for minor and major injuries at the company needs to be determined. There were some strong indicators of adequate health and safety at the company.

However, a crucial element, safety at the workplace, seemed to be missing. It is imperative that the company initiate a programme to identify the safety issues that are of concern to the employees. According to Hermanus (2007), occupational injuries and ill health have enormous social and financial implications for individuals, their families, their communities and companies. Direct costs include costs associated with damage at the workplace, compensation costs and costs associated with the loss of production (Hermanus, 2007). Poor communities are subject to the majority of externalised indirect costs associated with injuries on duty and ill health, but today companies can also suffer reputational damage and loss of investment (Hermanus, 2007). In the broader context of sustainability, safe and healthy working conditions are amongst the first and foremost requirements for sustainable development. There is a high expectation that the risks at the workplace should not deprive employees of their income and health (Hermanus, 2007).

5.3.8 Health and Safety Recommendations

A Health and Safety programme should be initiated as a matter of urgency. Concurrently, an independent external health and safety consultant should be brought to the company to identify potential risk and produce a comprehensive health and safety company document that should be available to all employees. Further research is needed to ascertain the weights of the various elements that are used to compile the health and safety indicators. For example, it is difficult

to understand how a company is said to be socially sustainable (having well trained and efficient first aiders, with access to sufficient and efficient emergency services and a fully stocked clinic) if employees are working in dangerous conditions and are being injured frequently. Further research is needed relating to issues of health and safety and the weighting of elements of health and safety in similar agri-processing facilities in the Eastern Cape.

5.3.9 Well-being

The well-being of employees was identified in chapter two as a vital indicator of social sustainability in a company. From the literature in chapter two (Hayati, 2017, Labuschagne *et al.*, 2005b, Ochieng *et al.*, 2013, Van Cauwenbergh *et al.*, 2007, Vasileiadis *et al.*, 2013) and the Barrientos and Visser (2013) framework, the following elements of well-being were investigated in the individual interviews:

- The importance of the company providing debt and budgeting workshops.
- The importance of the company providing family planning and family relationship workshops.
- The importance of the company providing domestic violence, stress management and depression management workshops.
- The importance of the company providing counselling, a social worker on site and work-related skills training.
- The ease of locating a crèche where the employee lives and whether having a crèche available for the employee's children would allow the employee to concentrate more on work.

It was clear from the interviews that none of the elements listed above that contribute to the wellbeing indicator, adapted from the Barrientos and Visser (2013) framework, were implemented at the company. However, it became apparent that there was a significant demand from the employees for these elements.

5.3.10 Well-being Recommendations

A company organised debt and budgeting workshop could be a significant initiative for the employees. These workshops in conjunction with the availability of small loans, the provident fund and the savings initiative could be used to implement techniques and strategies that would help employees make the most of their economic resources. There are resources available from

local banks in the area that offer budgeting and debt management workshops. It could be appropriate for the company to approach these financial institutions to ascertain if they would be able to assist in this regard. For these workshops to be a success they need to be conducted at the appropriate level and language so that they are easily understood and comprehended by employees.

These results indicated that the employees have needs that were currently not being met by the company and that the employees saw these needs as the responsibility of the company. Several large stone and pome fruit producing exporting agricultural companies have implemented family planning and family relationship workshops in the Western Cape Province of South Africa, and they appear to have had some positive results regarding the personal growth of employees. Personal actualisation and expression is an essential step in an individual's life (Burnett, 2015). Personal actualisation and expression help people to realise who they are and what they wish to achieve in life. It may, therefore, be worthwhile for the company to investigate and implement programmes and workshops that could help employees improve aspects of their personal lives. More research is needed in this area within companies with a similar employee profile. This research would need to discover if such workshops can help employees improve aspects of their personal lives resulting in a positive spin-off for the company regarding less absent days, higher productivity and an improved attitude in employees towards themselves, each other and their work.

There is a need for the company to provide domestic violence and child abuse workshops as well as stress and depression management workshops and to initiate a counselling scheme. Domestic violence, and in particular violence against women and children, are at epidemic proportions in South Africa (Vetten, 2005, Bendall, 2010). Incidents of violence and in particular gender-based violence in the communities in which the employees live is pervasive, and there is little assistance from the police and indeed willingness of women to report incidents that they see as private matters (Vetten, 2005, Bendall, 2010). The company should, therefore, look at ways of addressing these issues as prolonged exposure to violence can have devastating effects on individuals regarding how they view themselves and others (Abadi, Ghazinour, Nojomi and Richter, 2012). The link between high levels of domestic violence and child abuse to low self-esteem, depression and stress is well established (Abadi *et al.*, 2012). Further research is needed to define the role that counselling and domestic violence and child abuse workshops can have on increasing social sustainability in companies of a similar size, demographics and field as the company that is the subject of this research.

It is apparent that there is a substantial demand for more work-related training on site to improve skills as well as the company providing a social worker on site once a month. However, unless the social worker can make recommendations and have enough individual time with employees, then a social worker working at the company once a month may have little impact on the lives of the employees of the company. It is recommended that the company increase its skills training programme to equip employees for the different tasks that they need to perform their respective roles. Upskilling should have the dual benefit of increasing productivity as well as increasing efficiencies. It is also recommended that the company investigate, as a matter of urgency, the role that a social worker could play at the company. Further research is needed into how and why access to a social worker at a company, that has similar staff demographics and is in a similar industry, can improve social sustainability within the company and sustainability of the company as a whole.

As discussed in chapter two, the presence of a crèche that was available to employees is a reliable indicator of on-farm social sustainability. Barrientos and Visser (2013) showed that women give more attention to work if they know that their children are well cared for while they are away at work. The evidence from the individual interviews was that there were sufficient crèches available in the areas where the employees live. Twenty-four of the employees interviewed had children; all interviewees were women, nineteen lived in Bathurst, eight in Port Alfred and three in the farming community surrounding the company. It could be a positive step for the company to support a crèche in both of the locations where the employees live, help with the overheads of the crèche and reduce the costs for the employees at the crèche. Such a move could increase social sustainability in the community and the farm at the same time, and there could be an increase in the productivity of employees in the company as they might concentrate more on what they are doing at work and not worry about their children. However, far more investigation is needed from the company into this proposal.

5.4 Empowerment Standards

5.4.1 Communication with Management

From the individual interviews, it was clear that the issue of communication with management was a relatively divisive subject within the company.

Although it appeared to be a contentious subject, management communicated with workers, and consequently, this indicator was present in the company in question.

The literature in chapter two identified communication with management as an indicator of empowerment standards and therefore social sustainability (Källström and Ljung, 2005, Labuschagne *et al.*, 2005b, Ochieng *et al.*, 2013, Van Cauwenbergh *et al.*, 2007, Vasileiadis *et al.*, 2013). Excellent communication with management is an essential aspect of sustainability in any organisation Klein (1996), and in particular for social sustainability (Barrientos and Visser, 2013). Through the use of the Barrientos and Visser (2013) framework, this aspect of social sustainability was present in the company.

5.4.2 Communication with Management Recommendations

However, because it was a contentious subject, the implementation of a management communication strategy should be examined in an attempt to improve communication with employees.

This could include:

- 1) The use of more than one type of media to convey communications
- 2) To allow communication to flow through an established line of hierarchy
- 3) To use face to face communication as it is the most effective form of communication
- 4) To use Opinion leaders who are effective changers in opinions and attitudes
- 5) Make information personal and relevant because it is retained more readily than abstract information

(Adapted from Klein (1996)).

The company should, therefore, review different communication strategies that are used in comparable companies that have similar employee demographics. The review would help the company to formulate an effective and efficient communication strategy that allows employees to stay abreast of developments.

5.4.3 Adequate Representation

The results showed that employees within the company felt that they were well represented by the workers' committee. This indicator as an element of social sustainability, adapted from the Barrientos and Visser (2013) framework, existed in the company. Adequate representation of workers is identified in the literature as a critical component of on-farm internal social sustainability (Källström and Ljung, 2005, Labuschagne *et al.*, 2005b, Van Cauwenbergh *et al.*, 2007, Vasileiadis *et al.*, 2013)

5.4.4 Adequate Representation Recommendations

While the workers' committee existed and seemed to function adequately, the role of the committee should be thoroughly investigated by the management of the company to ensure that it is serving its function correctly and that it is providing the employees with what they need regarding representation.

5.4.5 Discrimination

From the individual interviews, it was clear that the issue of discrimination within the company was a contentious subject. In the context of this research, discrimination related to employees feeling that there was favouritism in the workplace and that certain employees were allocated more overtime and jobs that were perceived as being more prestigious or easier. The majority of employees felt some form of discrimination at work, which does not indicate social sustainability in the company. According to the literature studied in chapter two equal treatment and recognition are fundamental to on-farm internal social sustainability (Hayati, 2017, Källström and Ljung, 2005, Labuschagne *et al.*, 2005b, Van Cauwenbergh *et al.*, 2007, Vasileiadis *et al.*, 2013).

According to Section Six of the South African Employment Equity Act of 1998, “*no person may unfairly discriminate, directly or indirectly, against an employee in any employment policy or practice, on one or more grounds, including race, gender, sex, pregnancy, marital status, family responsibility, ethnic or social origin, colour, sexual orientation, age, disability, religion, HIV status, conscience, belief, political opinion, culture, language and birth*”.

5.4.6 Discrimination Recommendations

Management must identify the type of discrimination prevalent in the company and implement the appropriate remedial action. Management must locate the source of this discrimination and the reasons for its prevalence need to be dealt with efficiently and effectively. Regarding work opportunity and promotions being available to all, the company should examine its internal human resources policy and implement an efficient and transparent system that allows for understandable promotion. The company should implement leadership training and ethics programmes for managers and supervisors and implement a coherent and transparent internal policy on how managers and supervisors interact with employees. It is vital that the company at the centre of this research examine the internal human resource policies and training programmes that are implemented in other similar companies that produce a similar product and has a similar demographic of employees.

5.4.7 Harsh Treatment

From the results of the individual interviews, the employees within the company felt very differently concerning the level of harsh treatment within the company.

The majority of employees at the company considered that management treated them harshly. Consequently, this indicator for social sustainability as outlined in the Barrientos and Visser (2013) framework was not present at the company. Appreciation, care, recognition and equal treatment are important elements in creating on-farm internal social sustainability (Hayati, 2017, Källström and Ljung, 2005, Labuschagne *et al.*, 2005b, Van Cauwenbergh *et al.*, 2007, Vasileiadis *et al.*, 2013)

5.4.8 Harsh Treatment Recommendations

The company needs to identify why employees feel that they are harshly treated and then attempt to find solutions to these issues. What is challenging for the company regarding employees' feelings of discrimination and harsh treatment is that the company must deal with the employees' experienced and constructed moral emotions and subsequent expressions. What is apparent is that employees bring their personal experiences and beliefs to work and these experiences and beliefs inform their opinions, actions and reactions to events that occur at work (Kamrath, 2015). It is, therefore, required that management delve into the employees' world to try and understand their reactions and feelings.

Harsh treatment as a concept is ill defined in the Barrientos and Visser (2013) framework. The two questions from the individual interviews on the subject of harsh treatment could result in

a crossover of answers relating to other social sustainability indicators such as communication with management and discrimination. The concept of harsh treatment needs further research in the context of on-farm social sustainability in agriculture. This research should attempt to clarify the concept of harsh treatment within the context of the relevant labour laws and general employees' attitudes within the organisations in question. The companies in which the research is conducted should be in a similar industry and have a similar employee profile as the company that is the subject of this research.

5.4.9 Decision Making

The results of the individual interviews indicated that employees did not have a decision-making role in the company at the centre of this research. This indicator was identified in chapter two as an important indicator for on-farm internal social sustainability (Hayati, 2017, Källström and Ljung, 2005, Labuschagne *et al.*, 2005b, Van Cauwenbergh *et al.*, 2007, Vasileiadis *et al.*, 2013).

The majority of employees considered that they did not have a decision-making role within the company and that they were not heard. Therefore, this indicator of social sustainability as per the Barrientos and Visser (2013) framework did not appear to be present in the company.

Employee participation in decision-making can increase an employee's positive perception and attitudes. Literature has shown that employees who see themselves as part of an organisation tend to commit to the organisation, which can evoke an altruistic spirit that leads to increased productivity (Han, Chiang and Chang, 2010).

5.4.10 Decision Making Recommendations

In the case of the company, it was evident that employees did not feel that they were part of the decision-making process and therefore the positives associated with employee participation in decision-making processes were not felt. It is recommended that the company review ways in which management can incorporate employees into meaningful decision making roles. What is of interest in the case of the decision making role of employees is that although employees agreed that the workers' committee represented their needs well, employees did not feel that they were being listened to and were not in a position to influence company policy. There, therefore, appears to be some disparity between how employees perceive the role of the workers' committee and the effect the workers' committee has on decisions taken in the

company. It is recommended that the company highlight the role of the workers' committee and attempt to engage workers in their roles within the company.

5.5 Conclusion

From the results of the study, three of the five indicators of social sustainability under Measurable Standards met the requirements of the chosen social sustainability framework of Barrientos and Visser (2013), those being *Contracts*, *Wages* and *Benefits*. Two of the indicators did not meet the requirements of the Barrientos and Visser (2013) framework namely *Health and Safety* and *Wellbeing*.

Two of the five indicators of social sustainability under Empowerment Standards met the requirements of the Barrientos and Visser (2013) framework, those being, *Communication with Management* and *Adequate Representation*. Three of the indicators did not meet the requirements of social sustainability as determined by the Barrientos and Visser (2013) framework namely *The Level of Discrimination*, *The Level of Harsh Treatment* and *Employee Decision Making*. According to the literature, in the context of South African agriculture, these three indicators of social sustainability are exceptionally important (Barrientos and Visser, 2013, Mather, 2007, Moseley and McCusker, 2008).

Therefore, fifty percent of the indicators of social sustainability that are present in the Barrientos and Visser (2013) framework were also present at the company, three Measurable Standard indicators and two Empowerment Standard indicators. The degree of influence each indicator has in determining the overall level of social sustainability in an organisation has not been determined, and therefore more research is needed to determine the impact of individual indicators and the weighting of each indicator in a specific environment as outlined in chapter two. The research should be conducted in a company that is in a similar industry and has similar staff demographics to the company at the centre of this research, according to the literature; the scale and directness of measure will influence the results.

CHAPTER SIX: CONCLUSION

6.1 Introduction

6.2

In this chapter, the information obtained from the results and the discussion is compiled into conclusions relating to each indicator of social sustainability as described in the Barrientos and Visser (2013) framework. This chapter also draws on the three research objectives outlined at the beginning of this thesis and shows how, with reference to the indicators of social sustainability mentioned above, each objective is met.

The indicators are discussed under the headings of Measurable Standards and Empowerment Standards respectively. Table 6 below provides a summary.

name	Indicator in chosen framework	Indicator on-farm internal social sustainability Present
MEASURABLE STANDARDS	Contracts	Yes.
	Minimum Wage	Yes.
	Benefits	Yes.
	Health & Safety	No.
	Well-Being	No
EMPOWERMENT STANDARDS	Communication With Management	Yes.
	Adequate Representation	Yes.
	Discrimination	No.
	Harsh Treatment	No.
	Employee Decision Making	No.

Table 6: Summary of indicators, from the adapted framework, of on-farm internal social sustainability at the company.

Three of the five indicators of social sustainability under Measurable Standards met the requirements of the chosen social sustainability framework of Barrientos and Visser (2013), those being *Contracts*, *Wages* and *Benefits*. Two of the indicators did not meet the requirements of the Barrientos and Visser (2013) framework namely *Health and Safety* and *Wellbeing*. Two of the five indicators of social sustainability under Empowerment Standards met the requirements of the Barrientos and Visser (2013) framework, those being, *Communication with Management* and *Adequate Representation*. Three of the indicators did not meet the requirements of social sustainability as determined by the Barrientos and Visser (2013)

framework namely *The Level of Discrimination, The Level of Harsh Treatment and Employee Decision Making*.

Therefore, fifty percent of the indicators of social sustainability that are present in the Barrientos and Visser (2013) framework were also present at the company, three Measurable Standard indicators and two Empowerment Standard indicators.

6.2 Measurable Standards

From the results and discussion, it can be concluded that many correlations take place between the chosen framework and the company that is the centre of the research when issues of contracts, wages, benefits, health and safety and well-being are discussed.

6.2.1 Contracts

Contracts are in place at the company. However, appropriate steps need to be taken by the company to ensure that employee's comprehension of the contracts, rules and regulations that govern the workplace are adequately understood.

6.2.2 Wage

The company pays at least the minimum wage. The question of a living wage needs to be examined by the company and appropriate steps taken to ensure that household income for employees meet their respective needs while allowing the company to remain profitable.

6.2.3 Benefits

Only a provident fund is provided to the employees. No funeral cover is provided. However, an additional three benefits were identified. Namely, free transport to work, small interest-free loans and a savings initiative. Employees indicated that they agreed that the company should contribute to a funeral cover and help organise it. With one primary indicator absent but with the addition of three other elements, this appears to correspond to the Barrientos and Visser (2013) framework and therefore indicates on-farm internal social sustainability in the company.

6.2.4 Health and Safety

The employees do not feel safe in the workplace. Considerable work needs to be undertaken by the company with regards to the employees' views on health and safety in the workplace.

6.2.5 Well-being

No aspects of well-being occur in the company. From the results and the discussion, there is a demand for all elements of well-being to be incorporated into the standard operating practices of the company. This should be implemented as a matter of urgency.

6.3 Empowerment Standards

There are discrepancies between the framework and the company when issues of communication with management, adequate representation, discrimination, harsh treatment and the level of employee decision making are examined. Empowerment standards are difficult to ascertain and implement. Careful thought and attention need to be given to each aspect by the management of the company to increase the social sustainability of the company as a whole.

6.3.1 Communication

The majority of employees agreed that management communicates well with the employees. However, the company needs to take cognisance of the fact that there are a considerable number of employees who feel that management does not communicate well. The company needs to take appropriate action to resolve this.

6.3.2 Representation

The majority of employees at the company agree that the permanent workers' committee represents their needs adequately.

6.3.3 Discrimination

The majority of employees in the company believe that there is discrimination within the company. The absence of this indicator adversely affects the social sustainability of the company.

6.3.4 Harsh Treatment

The concept of harsh treatment of employees in the company is a very contentious issue, with many employees feeling that they are poorly treated by management. The company needs to

engage with management and compile an action plan to train managers regarding ethics and management style. The company needs to draft a human resources plan and make sure all employees are aware of the contents of the plan.

6.3.5 Decision Making

The majority of employees in the company do not agree that they have a role in decision making. The company should incorporate employees in the decision-making process and expand the role of the workers' committee to make sure that they participate in decision making.

It is important to address the research objectives that informed this research, as highlighted in chapter One of this thesis, and to demonstrate how they have been met through the adoption of the chosen framework.

Objective 1: Identify which aspects of on-farm internal social sustainability from the framework occur in the company.

As outlined above, various aspects of on-farm social sustainability are present in the company, including contracts (pg46), wages (pg47), benefits (pg49), communication with management (pg54) and representation (pg55). The staff employed believe there to be good communication between themselves and management, and they feel there is fair representation of their needs and concerns.

Objective 2: Critically evaluate the indicators of on-farm internal social sustainability identified in objective one and discuss the challenges relating to those that are not implemented.

While many indicators are present, there are a number that are not currently operating within the company in question. These include health and safety (pg50) as staff do not feel safe at work; lack of wellbeing (pg51); problems with discrimination; harsh treatment (pg56); and a lack of decision-making capacity (pg57). The lack of a clear and concise human resources plan could be a contributing factor in the failure of the implementation of these indicators. Within the company in question there seems to be a fair amount of confusion regarding the roles of the committees and rights of the workers in terms of ethical and social capital.

Objective 3: Make recommendations to improve on-farm internal social sustainability in this company.

Results of this research suggest that the introduction of various programmes would significantly improve the level to which social sustainability exists on the farm in question. A Health and Safety programme should be initiated as a matter of urgency as well as continued research into the weighting of health and safety indicators (pg50). To address the lack of well-being in the company it is the researcher's suggestion to introduce regular debt and budgeting workshops, which would encourage financial literacy of staff and in turn encourage more responsible use of finances (pg51). In addition the introduction of domestic violence and child abuse workshops as well as stress and depression management workshops and to initiate a counselling scheme. As discrimination was a problem at the company in question, it would be helpful to identify the root cause of discrimination and allegations of favouritism, and implement a comprehensive human resources policy to manage allegations (. Similarly in the case of addressing staff members' feelings of being excluded from decision-making, it is recommended that the company highlight the role of the workers' committee and attempt to engage workers in their roles within the company (pg57).

6.4 Conclusion

In this chapter indicators of social sustainability occurring in the company have been identified and critically analysed. Recommendations have also been made relating to the improvement of the various factors that affect social sustainability, as determined by the Barrientos and Visser (2013) framework.

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Appendix 1

Questionnaire pilot interview an evaluation of social sustainability practices in an agri-based private company in the Eastern Cape

Please complete the following questionnaire with specific regard to the above enquiry by answering the questions to the best of your ability.

- 1) Do you live locally?
- 2) Do you have children, how old are they?
- 3) How long have you worked at the company?
- 4) Do you pay for transport to work?
- 5) Have you been issued a contract for work and is it easy to understand?
- 6) Has the contract been explained to you?
- 7) Do you feel having a contract makes a difference to your job security?
- 8) Are you aware of the South African labour regulations?
- 9) Have the South African labour regulations been explained to you?
- 10) How do you think your wage compares to the national minimum wage for Farmworkers?
- 11) How does management know that you are present for work?
- 12) How does management know if you have worked overtime?
- 13) Do you feel that you are paid correctly for your overtime?
- 14) Is a provident fund provided for the workers? What is it and are you a member?
- 15) Have you ever received a small loan from the company or know of anyone that has received a loan?
- 16) Does the company provide an opportunity for you to save? If so how does this work?

- 17) Has the company ever provided debt counselling for you or anyone that you know? Do you think they should?
- 18) Has the company ever provided you with a monthly budgeting plan or shown you how to save? Do you think they should?
- 19) Are you provided with an easy to understand payslip and is it explained to you if there are questions?

Health and safety

- 1) Are there any accidents in the facility? Have you ever been involved in an accident? Who looks after someone who is involved in an accident or has an illness?
- 2) Are you aware of health and safety issues in the facility?
- 3) Are you aware of the danger of fires in the facility?
- 4) Do you go to the mobile clinic that services the facility? How often do you go?
- 5) How long do you have to wait to see the nurse at the mobile clinic?
- 6) Do you think that the mobile clinic should come to the farms more often?
- 7) Does the mobile clinic provide family planning?
- 8) Have you received any other medical attention or service at the facility?

Wellbeing

- 1) Do you think that the company should provide opportunities for counselling in areas such as marriage enrichment, domestic violence, stress and depression management, child abuse management and trauma counselling? Why? Would you go if such a service was provided?
- 2) How should the company provide this?
- 3) Should the company provide a crèche in the nearest town for employee's children?
- 4) What time should it open and what time should it close?
- 5) Would you be willing to pay for this?

Empowerment

- 1) What grade/standard did you achieve at school? Do you think it is important for the company to provide additional schooling for employees?
- 2) Do you think that the company should provide additional training such as computer skills, reading and writing?
- 3) Do you feel that the management listens to what you have to say?
- 4) Do you feel that you are represented at the facility? How do you think you should be represented?
- 5) Do you feel that you have a say in how the facility operates? Why?
- 6) Do you feel that other people are treated better than you in the factory?
- 7) Do you think that management treats you fairly in the factory?
- 8) Do you feel that management communicates correctly with the factory staff?
- 9) Are promotions available to you in the factory?
- 10) Do you feel that disciplinary hearings are fair to people?
- 11) Have you ever felt that you have been discriminated against?

Appendix 2

Questionnaire interview an evaluation of social sustainability practices in an agri-based private company in the Eastern Cape

Please complete the following questionnaire with specific regard to the above enquiry, by placing a CROSS in the appropriate box

Initial questions:

- 1) Do you live on the farm?
- 2) Do you live in Bathurst?
- 3) Do you live in Port Alfred?
- 4) Do you have children?

	agree	uncertain/ not	disagree
1. The company pays for my transport to work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I have a contract with the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. My contract has been explained to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. My contract is easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I feel my job is more secure with my contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I understand my legal rights as a worker in this company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. South African labour regulations for farm workers have been explained to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. South African labour regulations for farm workers are available to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Statement: The national minimum wage for farm workers is R3012.59 per month or R138.51 per day			
10. I am paid the minimum wage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I am paid higher than minimum wage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I am expected to work overtime when needed by the company	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. I am paid the correct amount for overtime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	strongly agree	agree	uncertain/ not -----	disagree	strongly disagree
14. Overtime hours are fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I receive payslips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. My payslips are explained if there are questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The company helps with small loan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. The company should help with small loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. The company helps me to save	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The company provides a provident/retirement fund	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I am a member of the provident fund	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. The company provides funeral cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. It is important for the company to organise good quality funeral cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. It is important for the company to organise affordable funeral cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25. It is more important to have good quality funeral cover than the cheaper funeral cover. I do not mind paying more.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I would be willing to contribute to good quality funeral cover organised by the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	strongly agree	agree	uncertain/ not applicable	disagree	strongly disagree
27. It is safe to work at the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. If I am injured at work, I receive medical attention quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. There are trained first aiders one site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I know who the first aiders are	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. There is a mobile clinic available to us at work once a month	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. There is a registered nurse available to us at the mobile clinic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. A clinic should be available twice a month on the farm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. It is important for the company to provide debt workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. It is important for the company to provide budgeting workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. It is important for the company to provide family planning workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	strongly agree	agree	neutral/certain/ not applicable	disagree	strongly disagree
37. It is important for the company to provide family relationship workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. The management listens to the workers at the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. It is important for the company to provide domestic violence workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. The worker's committee works well at representing my needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. It is important for the company to provide stress management workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. Work opportunities at the company are fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. It is important for the company to provide depression management workshops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. People are treated the same at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. It is important for the company to provide child abuse counselling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. Management treats people fairly at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. It is important for the company to provide counselling for difficult events like death, sickness, violence etc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Promotions are available to all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. It is important for the company to provide work related training for improving skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. Disciplinary meetings are fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. It is important to have a social worker available to us once a month at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. Management communicates with workers regarding all issues of discipline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. It is difficult to find a crèche for my children where I live	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. Workers have a say in how the company operates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. It is important for the company to help pay for a crèche where I live for my children during working hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. If we have suggestion's in the work environment I would be able to give more attention to work if a crèche was available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. Management will listen to us	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. It is important for the company to provide additional non work specific training to enrich our lives. Examples?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix 3
Data Analysis

Frequency Tables

Contracts

Q	2	3	4	5	6	7	8
1	23	15	10	7	5	7	5
2	7	4	5	5	8	3	1
3	0	7	2	7	9	2	1
4	0	0	7	2	7	9	5
5	0	4	6	9	1	9	18

Wages

Q	10	11	12	13	14	15	16
1	20	7	23	17	8	22	19
2	5	9	6	8	9	4	7
3	0	5	0	2	3	2	1
4	3	5	0	2	6	0	0
5	2	4	1	1	4	2	3

Benefits

Q	1	17	18	19	20	21	22	23	24	25	26
1	28	9	19	23	23	21	0	20	15	16	14
2	1	8	8	5	4	5	0	6	12	6	12
3	0	9	2	1	2	1	3	1	2	3	3
4	1	3	0	0	1	2	3	0	0	4	1
5	0	1	1	1	0	1	24	3	1	1	0

Health and Safety

Q	27	28	29	30	31	32	33
1	5	14	20	21	21	15	17
2	1	8	10	9	7	7	9
3	7	2	0	0	0	6	1
4	11	5	0	0	1	1	3
5	6	1	0	0	1	1	0

Well-being

Q	34	35	36	37	38	39	40	41	42	43	44	45	46	47
1	19	23	23	21	23	24	20	22	22	24	23	3	10	16
2	8	7	6	9	7	6	8	7	7	5	6	3	5	7
3	2	0	1	0	0	0	1	1	0	0	1	1	8	2
4	0	0	0	0	0	0	1	0	1	0	0	5	7	4
5	1	0	0	0	0	0	0	0	0	1	0	18	0	1

Communication

Q	48	55
1	7	8
2	10	6
3	1	5
4	7	8
5	5	3

Representation

Q	49
1	10
2	14
3	1
4	2
5	3

Discrimination

Q	50	51	53
1	8	5	5
2	7	2	5
3	8	7	9
4	6	7	6
5	1	9	5

Harsh Treatment

Q	52	54
1	4	6
2	4	7
3	9	6
4	9	5
5	4	6

Decision Making

Q	56	57
1	4	3
2	5	1
3	4	10
4	11	12
5	6	4

Initial Questions

	Y	N
1	1	29
2	19	11
3	10	20

Frequency Table Individual Employees

Employee	Count 1	Count 2	Count 3	Count 4	Count 5
1	31	10	0	8	8
2	51	1	0	0	5
3	34	7	0	7	9
4	28	12	4	6	7
5	49	1	6	0	1
6	15	20	2	3	17
7	31	13	8	1	4
8	30	6	13	4	4
9	26	9	13	5	4
10	15	28	2	12	0
11	33	7	0	9	8
12	41	8	3	2	3
13	25	13	7	5	7
14	5	37	9	6	0
15	34	0	6	10	7
16	14	12	18	12	1
17	22	12	5	12	6
18	4	35	5	10	3
19	31	10	11	0	5
20	30	10	11	1	5
21	41	0	11	0	5
22	15	24	1	14	3
23	24	12	1	4	16
24	22	14	0	11	10
25	24	10	2	11	10
26	45	2	4	1	5
27	24	17	5	8	3
28	30	9	4	5	9
29	47	4	0	3	3
30	20	16	10	6	5

Appendix 4

Data

Initial Questions and Contracts

	A	B	2	3	4	5	6	7	8
1	2	1	1	5	4	5	1	1	5
2	2	1	1	1	1	1	2	5	5
3	2	1	1	2	1	1	2	4	5
4	2	1	1	1	1	5	3	2	4
5	3	2	1	1	1	1	1	1	1
6	2	1	1	5	4	1	1	1	1
7	3	1	2	3	4	3	3	5	5
8	1	1	2	3	4	3	3	5	5
9	2	1	2	3	4	3	3	5	5
10	2	1	2	2	2	4	2	4	4
11	2	1	1	1	5	5	5	1	5
12	2	1	1	1	1	2	3	4	5
13	2	1	1	1	3	4	4	4	1
14	2	2	1	1	2	2	2	2	3
15	3	1	1	1	1	1	1	1	1
16	1	1	1	3	2	1	4	4	2
17	2	2	1	5	4	5	4	4	5
18	2	1	1	1	4	5	4	3	5
19	2	2	2	3	5	3	3	5	5
20	1	1	2	3	5	3	3	5	5
21	2	1	1	3	5	3	3	5	5
22	3	1	1	5	5	5	4	4	4
23	2	1	1	2	2	3	4	5	5
24	2	1	2	2	5	5	2	1	4
25	2	1	1	1	2	5	4	4	5
26	3	2	1	1	1	5	1	1	1
27	2	2	1	1	1	2	2	4	4
28	3	1	1	1	3	2	2	3	5
29	3	1	1	1	1	2	2	2	5
30	3	1	1	1	1	1	3	5	5

Wages

	10	11	12	13	14	15	16
1	1	2	1	2	5	1	1
2	1	5	1	1	1	1	1
3	1	5	1	1	4	5	5
4	1	1	1	1	2	5	5
5	1	3	1	1	1	1	1
6	5	2	1	1	1	1	5
7	1	2	1	1	2	1	1
8	1	4	1	1	2	2	1
9	1	4	1	4	4	1	2
10	2	3	2	4	4	1	1
11	1	1	1	2	5	1	1
12	1	1	1	2	1	1	1
13	1	1	2	1	3	1	1
14	4	2	2	2	2	1	1
15	4	5	5	1	1	3	3
16	4	4	1	1	2	3	2
17	1	2	1	2	5	1	1
18	2	2	2	2	4	2	2
19	1	1	1	1	3	1	1
20	1	3	1	1	2	1	1
21	1	3	1	1	1	1	1
22	1	1	2	1	4	1	2
23	2	2	2	2	5	2	2
24	2	2	1	2	4	2	2
25	1	5	1	5	3	1	2
26	5	4	1	1	1	1	1
27	1	2	1	1	2	1	1
28	1	4	1	3	2	1	1
29	1	1	1	1	2	1	1
30	2	3	1	3	1	1	1

Benefits

	1	17	18	19	20	21	22	23	24	25	26
1	1	1	1	1	1	1	5	1	1	1	1
2	1	1	1	1	1	1	5	1	1	1	1
3	1	2	1	5	1	5	5	1	1	1	1
4	1	4	1	2	3	3	5	1	2	4	1
5	1	3	1	1	1	2	5	1	1	1	1
6	1	5	5	1	1	1	5	5	5	1	1
7	1	2	2	1	1	1	5	1	2	2	2
8	1	4	1	1	1	1	5	1	1	4	2
9	1	3	2	1	1	1	5	2	2	4	2
10	1	1	2	1	1	1	4	2	2	2	2
11	1	1	1	1	1	1	5	1	1	1	1
12	1	1	1	1	1	1	5	1	1	3	2
13	1	2	1	1	1	1	5	1	3	3	3
14	1	3	3	2	2	2	4	2	2	2	2
15	1	3	1	3	3	4	3	1	1	1	1
16	2	3	3	1	4	4	3	3	3	4	3
17	1	3	1	1	1	1	5	1	1	1	2
18	1	3	2	2	2	2	3	5	2	2	2
19	1	2	1	1	1	1	5	1	2	1	2
20	4	2	1	1	1	1	5	1	2	1	2
21	1	1	1	1	1	1	5	1	1	1	1
22	1	3	2	2	1	1	4	2	2	2	1
23	1	2	2	1	1	1	5	1	1	1	1
24	1	2	2	2	2	2	5	5	2	1	1
25	1	4	1	1	1	2	5	2	2	1	2
26	1	3	1	1	2	1	5	1	1	1	1
27	1	1	2	1	1	1	5	1	1	5	4
28	1	2	1	1	1	1	5	1	1	2	2
29	1	1	1	1	1	1	5	1	1	1	1
30	1	1	1	1	1	1	5	2	2	3	3

Health and Safety

	27	28	29	30	31	32	33
1	4	1	1	1	1	1	1
2	1	1	1	1	1	1	1
3	4	2	1	1	1	2	4
4	5	2	2	2	1	1	1
5	1	1	1	1	1	3	1
6	5	3	2	2	4	2	4
7	3	1	1	1	1	1	2
8	3	1	1	1	1	1	1
9	3	1	1	1	1	1	1
10	4	2	2	2	2	3	2
11	5	4	1	1	2	2	1
12	1	1	1	1	1	1	1
13	5	2	2	2	2	2	2
14	4	2	2	2	2	3	2
15	4	4	1	1	1	1	1
16	3	3	2	2	2	2	4
17	4	1	1	1	1	1	2
18	4	2	2	2	2	2	2
19	3	1	1	1	1	1	2
20	3	1	1	1	1	1	1
21	3	1	1	1	1	1	1
22	4	2	1	1	1	1	2
23	5	5	2	2	5	5	1
24	5	4	1	1	1	4	1
25	4	4	2	2	1	3	1
26	1	1	1	1	1	3	1
27	2	2	2	1	2	3	2
28	4	4	1	1	1	1	1
29	4	1	1	1	1	1	1
30	1	1	1	1	1	2	3

Well-Being

	34	35	36	37	38	39	40	41	42	43	44	45	46	47
1	5	1	1	2	2	2	2	2	2	1	1	5	1	1
2	1	1	1	1	1	1	1	1	1	1	1	5	1	1
3	1	1	1	1	1	1	1	1	1	1	1	5	4	1
4	1	1	1	1	1	1	1	1	1	1	1	5	3	5
5	1	1	1	1	1	1	1	1	1	1	1	3	1	1
6	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7	1	1	1	1	1	1	1	1	1	1	1	5	3	1
8	1	1	1	1	1	1	1	1	1	1	1	5	3	1
9	1	1	1	1	1	1	1	1	1	1	1	5	3	1
10	1	1	1	1	1	2	2	1	2	1	1	4	2	2
11	1	1	1	1	1	1	1	1	1	1	1	5	2	2
12	1	1	1	1	1	1	1	1	1	1	1	4	2	2
13	1	1	1	2	1	1	1	2	1	1	1	5	1	2
14	2	2	2	2	2	2	3	2	2	2	2	2	2	2
15	1	1	1	1	1	1	1	1	1	1	1	5	1	1
16	1	1	1	1	1	1	4	3	4	5	3	1	1	1
17	3	2	2	2	2	1	2	1	1	1	2	5	4	4
18	2	2	2	2	2	1	2	2	2	2	2	2	4	4
19	2	2	1	1	1	1	1	1	1	1	1	5	3	1
20	2	1	1	1	1	1	1	1	1	1	1	5	3	1
21	1	1	1	1	1	1	1	1	1	1	1	5	3	1
22	2	1	1	2	2	2	2	2	2	2	2	4	4	2
23	1	1	1	1	1	1	1	1	1	1	1	5	4	4
24	1	1	1	1	1	1	1	1	1	1	1	4	4	4
25	2	1	2	1	1	1	1	1	1	1	1	5	1	1
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	2	1	2	2	1	1	2	1	1	1	1	5	4	3
28	1	2	3	1	1	1	1	1	1	1	1	5	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	3	2	1	2	2	2	2	2	2	2	2	4	3	3

Communication, Representation, Discrimination, Harsh Treatment, Decision Making

	48	55	49	50	51	53	52	54	56	57
1	5	4	1	2	4	2	4	4	4	4
2	1	1	1	1	1	1	1	1	1	1
3	4	1	1	1	1	1	2	1	5	2
4	2	1	2	1	2	2	4	2	4	4
5	1	1	1	1	1	1	1	1	3	3
6	5	5	5	2	5	5	5	3	5	5
7	1	2	1	1	3	3	2	2	2	3
8	2	3	2	3	3	3	3	3	3	3
9	2	2	2	3	3	3	3	3	3	3
10	2	2	2	2	4	2	2	2	4	4
11	2	4	2	4	4	4	4	4	4	4
12	1	1	2	1	5	1	3	2	1	1
13	2	3	1	3	5	5	4	5	5	4
14	2	2	2	4	4	3	3	3	4	3
15	5	4	5	4	5	5	4	4	4	4
16	3	3	4	2	3	4	3	3	2	3
17	4	3	2	3	4	4	3	2	4	4
18	4	4	2	2	4	2	4	3	2	3
19	1	2	2	3	3	3	3	1	2	3
20	1	2	2	3	3	3	3	2	2	3
21	1	1	1	3	3	3	3	1	1	3
22	4	4	2	2	2	2	4	4	4	4
23	5	4	1	5	5	1	5	5	5	5
24	5	4	1	4	5	5	5	5	4	4
25	4	5	4	4	5	5	4	5	4	4
26	2	1	3	1	1	3	1	1	5	5
27	2	3	2	3	4	3	4	2	4	4
28	4	5	5	2	5	4	2	5	5	5
29	4	1	1	1	1	4	1	5	1	1
30	2	4	2	4	5	4	5	4	3	4

