

# The impact of sustainable certification on smallholder sugar growers

*A Case Study of Nkomazi smallholder sugar outgrowers in South Africa: a PhD proposal*



MSc. Minor Thesis by Amanda Gcanga

August 2014

Water Resources Management group



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# **The impact of sustainable certification on smallholder sugar growers**

*A Case Study of Nkomazi smallholder sugar outgrowers in South Africa: a PhD proposal*

Minor thesis Water Resources Management submitted in partial fulfillment of the degree of Master of Science in International Land and Water Management at Wageningen University, the Netherlands

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**August 2014**

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## 1. DEVELOPMENT OF PHD PROPOSAL

This chapter gives a brief outline on my motivations for development of the PhD research proposal (as part of my MSc study and also for future use). I further elaborate on the objectives that I set for myself in producing this report and what I was able to achieve.

### 1.1 MOTIVATION

I have been always intrigued by the topic around sustenance of rural livelihoods as I grew up. I myself am a product of such communities. The MSc programme in International Land and Water Management gave me the opportunity to learn more about burning topics around rural livelihoods centered around land and water. It was no surprise that for my MSc thesis research I decided to do a case study of small growers in the Malawi contracted to grow sugar cane by a South African sugar milling company with operations. While writing my thesis, I knew I wanted to learn more about business arrangements between smallholder farmers and agribusinesses.

Upon my return in the Netherlands, from field data collection in Malawi, I had a debriefing session with the project coordinator of SAVUSA Skills Programme, the initiative funding my MSc studies. I indicated to the project manager that I would like to continue my studies around smallholder growers and natural resources (land and water) management. From this meeting, the SAVUSA Skills Programme project coordinator indicated that there might be funding available for a PhD.

Together with my MSc major thesis supervisor (A Bolding) we came to an agreement that I could write a minor thesis, (WRM-80418) as a PhD proposal for submission to the Water Resource Management Group as part of my MSc degree. I could then use the PhD proposal for funding whenever suitable PhD proposal calls would open up for application.

Between June and August 2014, I set myself objectives which would help me develop a PhD proposal and apply for funding. The next section looks at the objectives I set myself.

### 1.2 OBJECTIVES

- Explore for possible funding
- Search for a possible supervisor
- Develop a possible topic and a PhD proposal
- Network and get to know academics engaging with South Africa

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## FUNDING

As I had indicated above, the idea of developing a PhD proposal emerged after I discovered PhD funding possibilities. These possibilities are explored below.

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## DESMOND TUTU PROGRAMME

The Desmond Tutu Programme was initiated in 2010 as a collaboration between the Vrije (Free) University of Amsterdam and the South African National Research Foundation (NRF). As part of the collaboration, grants were made available for aspiring South African PhD students. In 2010 18 South African PhD students received full grants. The partnerships are based on Joint Degree Agreements between a South African University and Vrije University Amsterdam. PhD students within the programme have a South African and a Dutch supervisor and obtain a Joint Degree: one certificate representing both universities (VU, 2013). In 2013, both parties agreed to extend the programme for another five years (2015-2020) and take on board an additional 100 South African PhD students. As a South African, I am eligible to apply for the funding.

I plan to apply for funding when the Vrije University opens calls for PhDs.

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## WAGENINGEN SCHOOL OF SOCIAL SCIENCES PHD FUNDING

The Wageningen School of Social Sciences (WASS) scholarship is awarded to exceptional MSc graduate students whose PhD proposal aligns with the WASS themes (WASS, 2013). Unfortunately, WASS did not have any open positions for PhD applications in 2014 but will open the application in 2015 (Roquas, 2014). I plan to submit my proposal to the WASS School of graduates in 2015.

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## SUPERVISION

If my application for the funding under the Desmond Tutu Programme is successful, I would be required to register at a South African University and the Free University and PhD students within the programme have both a South African and a Dutch supervisor.

My current supervisor and I started looking for someone from the Free University with whom I share similar interests in field of studies. Dr. M.J Spierenburg, from the faculty of Social Sciences at the Free University in Amsterdam proved interested and willing. A meeting between myself, current MSc supervisor (A Bolding) and M.J Spierenburg was arranged. During that meeting, MJ Spierenburg indicated interest in supervising my PhD if my application is successful.

If my application is successful under the WASS grants, I have indicated to my current supervisor, A Bolding, my interest in his co-supervision.

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## DEVELOPMENT OF THE PHD PROPOSAL

I developed my proposal based on literature review and brainstorming sessions with my supervisor. In different meetings held with my supervisor, we discussed possible topics,

To develop my proposal, I consulted different literature on the following relevant topics:



- Sugar industry in South Africa
- Smallholder growers in the sugar industry
- Partnerships between smallholder growers and sugar milling companies
- Fair Trade and Sustainable Production Certification schemes

In order to develop this proposal, I consulted a wide range of literature.

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## NETWORKING

An important part of my proposal was to get to know people that could help me sharpen my ideas around my PhD proposal. Two opportunities were identified for me to do this:

- 2 day Ceres summer school held at Utrecht University (30/06/2014-01/07/2014) : The Right to a Sustainable Future: The Ethics of Development and Environmental Change
- 14 days Ceres summer school hosted by Utrecht University (07/07/2014 - 19/07/2014):Land Governance for Development

I was able to attend the 2 day Summer School and present my ideas around a possible PhD study there to a wider academic audience. I received feedback and comments on how I could move forward. I also got to know PhD and MSc students from different universities in Netherlands and well as professors. We exchanged contacts and hopefully I am able to use such contacts in the future.

Unfortunately I was not able to attend the 14 day Ceres Summer school for which I was not able to organise the funding in time.

### 1.3 REFLECTIONS ON THE PROCESS

Through this process I was able to achieve some objectives while I fell short on Others. I mostly fell short on the writing up of a comprehensive PhD Proposal. The most challenging part for me was developing my ideas around what I actually want to do for this study and how I could go about it. Although I am interested in the topics I researched I also must acknowledge that field of study is still new to me and at times I get lost in the literature and my own ideas. However, with the assistance of my supervisor I managed to put down some initial ideas which I want to build upon in the future. The current PhD proposal is not complete (particularly the framework and concepts, and methodology need some more attention) and requires me to spend more time to be able to apply for grants. However, I have gained insightful ideas on what I could focus my research on. Also it is important to realize that each PhD application process brings its own modalities in terms of conditions, overall themes, and requirements in terms of type of research (with huge implications for how one frames one's concepts and methods). Hence the proposal lying before you is best regarded as an initial attempt that tries to capture possible dimensions and directions of my future PhD research. The exact modalities can only be fixed once a concrete PhD call for applications has been targeted.

Networking was a big challenge for me as it is something I am not familiar with. I was extremely nervous at the thought of presenting at the Ceres Summer School which would be attended by experts in the field that I am interested in. The presentation went well and I received positive feedback which gave me the confidence I needed to continue meeting new people and presenting whenever the opportunity rises. I was also confident to engage in other presentations, which is something that came as a surprise to me.

Meeting with my possible supervisor from Vrije University Amsterdam was also a challenge as I felt I was not fully confident in what I wanted to focus on and did not want her to think that I lack interest and passion on my studies. But through other meetings I have had with her (Ceres Summer school) I managed to engage with her in a less formal manner which made me more comfortable in talking about my ideas.

The rest of the report contains a second chapter which details the PhD proposal that I developed from 01/06/2014 till 29/08/2014. The proposal contains the following:

- Introduction
- Background Information
- Problem Statements
- Objectives
- Concepts and Frameworks
- Research Questions
- Methodology.

It must be noted that the sections on framework and methodology are not complete and would require additional effort from me in order to apply for grant.

## 2. PHD PROPOSAL

### 2.1 INTRODUCTION

The sugar cane industry supports livelihoods of millions of farmers (large-scale and smallholder farmers), factory workers and other industries aligned with it. However, the industry has been burdened with a negative image which is attributed to practices like slavery, forced and child labour, exploitation of smallholder farmers, land grabbing, soil and water pollution, and health hazards for cane cutters. As a result an alternative trade in the sugar industry emerged in an attempt to give more benefits to the smallholder farmers. The expansion of this cause has resulted in the establishment of four global organisations with voluntary standards that also seek to improve the image of the sugar cane industry (SSI, 2014). These organisations are Fairtrade (improving working conditions for employees and negotiating a fair price for smallholder growers), Bonsucro (focusing on environmental sustainability), Organic (promoting personal health and soil conservation), and Rainforest Alliance (emphasizing environmental sustainability). The introduction of these voluntary standard organisations has also brought changes in the global sugar market as big players in the market such as Coca Cola and Unilever have committed to buying sugar cane products that have been sustainably grown by 2020 (WWF, 2013). Moreover, policies, such as the European Union Renewable Energy Directive, which only allows imports of sustainable biofuel into the EU, might result in growers and milling companies adopting these standards in the pursuit of reaching out to markets. Various powerful players with different interests are being invited to take part in determining what sustainable production is and how it must be channelled into markets (Mutersbaugh et al, 2005; Renard, 2005).

While discussions around sustainable production of sugar cane are taking place at global level, on the ground smallholder farmers (SHF) seem to be struggling to stay competitive in the industry. In the context of South Africa, the total number of smallholder farmers growing sugar cane has declined from 45, 500 (ISO, 2014) to 22 453 (SASA, 2014) between 2007 and 2014 despite favourable policies and structures put in place to ensure their success in the industry. This decline has been attributed to the volatile global sugar prices, debts, high costs of inputs, poor soils, poor farm management, high transactions costs, and high fees charged by contractors/milling companies. While smallholder farmers are struggling to remain competitive in the industry, some large-scale farmers (of which most of them are white) together with WWF-South Africa, a full member of Bonsucro, and South African Sugar Association(SASA)<sup>1</sup> have been involved in development and implementation of SUSFARM<sup>2</sup>

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<sup>1</sup> The South African Sugar Association (SASA) is an autonomous (operating free from the government), organisation that governs the sugar industry in South Africa.

<sup>2</sup> Sustainable Sugarcane Farm Management System (SUSFARMS) is a guideline for better farm management practices which produces socio-economic and environmental benefits (WWF, 2013). The guideline/standards were developed by WWF-South Africa, South African Sugar Cane Research Institute (a division of SASA), Noordsberg Canegrowers, and Environmental Society of South Africa. Currently more than 400 large-scale sugar cane growers have adopted the standards (Conservation International, 2014).

in white commercial farms around KwaZulu Natal and Mpumalanga provinces. For WWF-South Africa, the SUSFARM standards represent a step closer for milling companies and sugar cane growers to obtain Bonsucro certificates, which the organisation has identified as their goal (WWF-South Africa, 2013; WWF, 2013). As a result, this initiative prompted Bonsucro to actively promote its standards to South African sugar industry. The promotion led to two major developments;

- SASA applying to be a full member of Bonsucro, and
- licencing of a Bonsucro certification body, SGS<sup>3</sup>, that can certify and audit milling companies that wish to obtain Bonsucro sustainable production certificate (BSPC).

Both developments indicate that the South African Sugar industry is moving towards sustainable production based on Bonsucro standards. South African milling companies that wish to obtain a Bonsucro sustainable production certificate, have to ensure that the cane suppliers comply with the standards. As smallholder farmers are contracted to the milling companies, they are obligated to comply with the requirements of the miller in terms of production standards. Ultimately, the introduction of sustainable standards to smallholder farmers might come across as though milling companies are burdening and enforcing sustainable production that will result in smallholder farmers carrying the costs and advanced farm management practices while the miller obtains the certification and its benefits. Therefore in an attempt to bring to light the possible effects of Bonsucro standards on smallholder farmers who are already struggling to stay competitive in the industry, the study answers two main questions;

- Will smallholder farmers be able to farm sustainably and in a profitable way with the introduction of sustainable standards in the sugar cane sector?
- How will the value of certification be shared between the smallholder farmers and the milling company?

To assess the sustainability of the smallholder irrigation schemes, the Bonsucro production standards will be measured against the recently developed FAO (2013a) Sustainability Assessment of Food and Agriculture Systems (SAFA) Framework. The SAFA framework focuses on establishing trade-offs and synergies between its identified themes of sustainability; governance, environment, social, and economy. To ascertain how the value obtained through certification is shared between the smallholder farmers and the scheme; a Share Value frame work will be used.

The rest of these documents give some background information about the history of certification and its position in the sugar industry, the sugar industry in South Africa, and the research area. Based on the background information, problem statement and the objective of the research are formulated. The report ends with a possible framework and a methodology.

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<sup>3</sup> SGS is an inspection, verification, and testing and certification international company with a branch in South Africa.

## 2.2 BACKGROUND

### 2.2.1 CERTIFYING AGRICULTURAL PRODUCTS

The concept of certifying agricultural products, also known as alternative trade, was established by NGOs that sold mostly coffee in special shops at extra costs as a strategy to ensure that SHFs from the global South receive a fair deal for the produce sold in the global North (Renard, 2005, Reynolds, 2002). The growth of alternative trade started when coffee growers requested to increase the volume of certified produce. In pursuit of increasing supply from the SHFs, a Dutch association introduced coffee from the global South in their markets with a fair trade label (Roozen and Vander Hoff, 2002, p. 79; Renard, 1999a). The fair trade label was specifically developed with the aim to secure a fair deal for SHFs who produce coffee at a price that is slightly higher for the buyers of coffee from the North (Renard, 1999). The fair trade concept continued to expand outside the Dutch community and by 2005 the label had been adopted in 14 European countries as well as United States, Canada, and Japan under the names of Max Havelaar, Fairtrade, and Transfair (Renard, 2005).

Over the years, the concept has grown and various certification labels with different strategies have been established; namely fair trade and environmental sustainability both focusing on different ethical aspects of production (CIDIN, 2014).

### CERTIFICATION OF THE SUGAR CANE INDUSTRY

Currently four global voluntary sustainability organisations operate in the sugar industry; Fairtrade, Bonsucro, Organic, and Rainforest Alliance. Fairtrade sugar works with SHF organisations and through its certification scheme the growers can access a social premium which they can use to invest in the community and their farms. SHFs are also guaranteed a minimum price for their sugar (FT, 2013). Bonsucro focuses on improving the environmental sustainability of the sugar cane production process and primary processing by engaging with different types of growers and the milling companies (Bonsucro, 2014). Organic focuses on the personal health of the consumer and the soil and Rainforest Alliance focuses on conserving biodiversity through improved environmental management (Rainforest Alliance, 2014).

Currently the amount of sugar cane produced in compliance with global sustainable standards is insignificant compared to the conventional sugar cane production, with only 6.36% of the global sugar cane production certified under one of the above four organisations in 2012 (SSI, 2014; Bonsucro, 2014;). Although this value is low it has been observed that the growth rate of the sustainable sugar sector has accelerated tremendously in the past few years, reaching a growth rate of 105% from 2008 to 2012 (SSI, 2014). The growth rate is attributed to the entry of Bonsucro into the industry as well as the commitment of the private sector to produce sustainable sugar at elevated prices, and policies that are aligned to support production of sustainable biofuel from sugar.

In the context of South Africa, none of the milling companies nor growers are producing sugar cane that is in compliance with the standards developed by the four organisations, yet Fairtrade and Bonsucro are active in the country. Fairtrade was reported to be in the process of certifying a SHF organisation in KwaZulu Natal that supplies its sugar cane to Illovo, one of the country's biggest milling companies located in KwaZulu Natal (ICCO-cooperation, 2014). While WWF, a full member of Bonsucro, pioneered the development of SUSFARM standards for sugar cane growers and milling companies. WWF sees SUSFARM as a step closer for cane growers in South Africa to obtain Bonsucro certification (WWF 2013; WWF-SA, 2013).

Details of the two organisations are further discussed below.

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## FAIRTRADE ORGANISATION

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### BACKGROUND TO FAIRTRADE ORGANISATION

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Fairtrade, which was launched in 1992, is the best known pro-poor production label globally (FT, 2013). By the end of 2013, FT products<sup>4</sup> were sold in over 125 countries. These products are sold at a price that is higher compared to the conventional production process in order to improve the livelihoods of the SHF and workers. As a rule of thumb prices for FT products are 50% higher of world market prices (Mann, 2007). According to the FT 2012-13 annual report, 1149 organisations are FT registered of which 80% represent SHFs, or 1.3 million SHFs and their workers in 70 countries, which on average get over €80 in premiums paid annually (FT, 2013).

An overview of impact studies of Fair Trade since 2000, provided by the European Fair Trade Association, focuses much on positive feedback on organisations of the farmers and the premiums but less attention is paid to the implications at individual and household level (Taylor, 2005; Reynolds et al., 2004). Critical studies by Valkila (2009) and Valkila and Nygren (2009) concluded that organic FT coffee produced by SHFs attains lower yields while they require more labour. Therefore the higher price received by the farmers substitutes for increased labour costs as well as reduced produce. Additionally, there is not much improvement made in the livelihoods of the SHFs because overall they remain in poverty. Other authors suggest that FT has not been successful in significantly improving the livelihood of SHFs due to challenges they face such as increased use of gas and fertiliser, high certification fees and annual tariffs, and communication costs (Reynolds, 2002; Mendez et al., 2010; de Janvry et al., 2012). And thus SHFs remain trapped in the poverty index.

Other studies find it difficult to measure the impact of FT because production and resulting market prices are more influenced by other national policies and developments on the global market. Instead, they conclude that FT and other certification networks may secure an

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<sup>4</sup> Fairtrade products comprise banana, cocoa (cocoa beans), coffee (green bean), cotton, dried and processed fruit, flowers and plants, fresh fruit, fresh vegetables, fresh juice, herbs and spices, honey, quinoa, rice, sports balls, sugar (cane sugar), tea, and wine ( FT, 2013)

income for SHFs but this may not be sufficient to improve much the general decline in SHF's livelihoods (CIDIN, 2014).

Another major concern over FT has been the limited market for selling certified products while the number of accredited organisations and workers involved in FT keeps on increasing. In the coffee sector, only a limited amount of all produce is sold on the FT market, around 20-25%, and thus the rest is sold on the conventional market (Renard, 2005; Arnould, 2006, 2009; Valkila, 2009; Ruben, 2009; Mendez, 2010; de Janvry et al., 2012). This can be worrying especially when SHFs are faced with high costs for securing a certification followed by annual tariffs. Moreover this indicates that the income of smallholders is only partially sourced from FT and thus much attention should still be paid on how to improve income from conventional markets.

The recent adoption of certified products by retail chains certainly increases the FT market share. However, Busch (2004) sees this as a concern for SHFs as major supermarkets and hyper markets are powerful actors exerting huge influence on the modalities of the industry. He adds that for these distributors, besides increasing sales certified products bring extra advantages as they adopt an image of caring for workers and SHFs from the global South even though they do not carry the cost attached with putting on the shelves certified products. The power shifts might tamper with the prices as distributors might favour lowered priced products which reduces sales of FT products, thus affecting the income and premiums of the SHF and workers (Renard, 2005).

Finally, FT has rolled out a new business model from 2013 to 2014 that will continue to prioritise the SHFs but will now establish closer relations with the private sector in order to increase market shares (SSI; 2014). This new business model might be a cause of concern for SHF organisations as the private sector does not prioritise the livelihoods of SHF.

## FAIRTRADE IN THE SUGAR CANE INDUSTRY

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FT sugar was launched in the 1990s in European Union. FT was motivated to include sugar producing SHFs in their organisation as they believed that the sugar cane industry depends on SHFs. However their livelihoods remain trapped in the poverty index as they are disadvantaged by the global sugar value chain (FT, 2013). According to FT Sugar, SHFs require assistance because international trade policies and subsidies to the sugar sector<sup>5</sup>, volatile sugar prices, and prevalent business models between SHFs and milling companies give more power to milling companies. As a result SHFs enjoy very little power and food security as SHFs switch for subsistence farming to sugar cane, environmental problems, and climate change (ibid).

Producer organisations are paid a Fairtrade Premium of USD 60 per tonne (USD 80 per tonne for certified organic) to be invested in community development, business and environmental projects in addition to the negotiated price. To be FT certified, SHFs have to

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<sup>5</sup> The international trade laws that govern sugar imports have made it difficult for smallholder farmers to access the more lucrative markets of Europe and North America. These force them into competition with more powerful, wealthy countries that have greater financial resources to dedicate to sugar production and greater political power to subsidise and promote their sugar industries (FT, 2013).



organise into a legally recognised cooperative/ association owned and governed by fellow farmers, and follow all standards of FT sugar production.

## BONSUCRO

Bonsucro, formerly known as Better Sugar Cane Initiative, was founded in 2007 as a private, non-profit, non-governmental organisation to promote sustainable sugar cane production, milling, and processing in order to limit negative environmental and social impacts. To achieve this mission, Bonsucro developed two certification systems which are each valid for three years.

- Bonsucro Production Standard which details sustainable standards for production of sugar cane and products derived from it (sugar and energy). This strategy is mostly for milling companies and cane growers. Certified millers and growers have to abide to standards such as; protecting and restoring soil, effective use of chemicals, refraining from burning sugar cane fields before harvesting, discontinuation of water pollution, and dealing with waste and effluent in an effective way (WWF, 2014).
- Bonsucro Chain of Custody Standard which entails administrative and technical requirements for tracking Bonsucro labelled products. This is necessary to avoid fraud and validate products' origin.

Bonsucro prides itself as being a multi-stakeholder organisation whose membership is open to farmers, end users, representatives from industry, civil society, and intermediary organisations. The organisation seeks to benefit all levels of represented stakeholders (farmers, marketers, processors, end users and civil society) by giving them the opportunity to voice their interests, participate actively in the definition of globally accepted sugar cane production standards and enhance their brand image and reputation. By 2013, the organisation had a total number of 105 members from 27 different countries. Some of the members include Shell, BP, Rabobank, Unilever, and WWF.

Bonsucro is a full member of the International Social and Environmental Accreditation and Labelling Alliance, a global initiative for sustainability standards (ISEAL Alliance, 2014). Bonsucro's standards also harmonise with the European Union Renewable Energy Directive (RED). As a result, in 2011, the European Commission identified Bonsucro as one of the seven certifying schemes to certify EU biofuel products whose production is promoted under RED.

Currently the organisation has approved 38 production certificates, resulting in the organisation reaching a sugar cane production mark of 3.32% of the global sugar cane production by 2014, an increase of 0.62% from the previous year (Bonsucro, 2014). The organisation plans to have 10% of the global sugar cane production certified under Bonsucro by 2015 by reaching out to milling companies and growers around the world as currently most of the certified companies are in Brazil. In 2014, it was reported that Bonsucro was visiting SHFs supplying sugar cane to Transvaal Suiker Beperk in Inkomati (Bolding, 2014).



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## 2.2.2 SUGAR INDUSTRY IN SOUTH AFRICA

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### 2.2.3 THE DEVELOPMENT OF THE SUGAR INDUSTRY IN SOUTH AFRICA

The South African Sugar industry has been active since 1847 when attempts were made to grow tropical crops in the North of Durban on a 2,000 hectares field (Lewis, 1990). The crop quickly gained popularity as by 1860 about 4,953 hectares were used to grow sugar cane and 23 mills were in operation. The growth of the sugar cane industry continued after 1860 mainly because of three factors; the investment of London capital, the availability of indentured workers that were brought from India, and the use of a new strain of sugar (Lewis, 1990). This growth resulted in an increase in the number of mills to 70 mills, 7,328 hectares were used to grow sugar cane by 1880, and sugar exports were worth £215 000 (ibid).

By 1910, the government of South Africa at the time decided to restrict the sugar industry. This resulted in the number of operating mills decreasing to 23 while the total hectares used to grow sugar cane had increased to 23 668 and individual growers had been replaced by large estates such as Tongaat Estate, Hulett's, and the Reynolds Brothers (Christopher, 1977).

Until 1965 when Transvaal Suiker Beperk Sugar, formerly known as Suikerkorporasie Beperk, was established in Mpumalanga province, sugar was exclusively grown in KwaZulu Natal province. However, it was not until the harvesting season of 1967/8 that the first Transvaal Suiker Beperk mill operated. By 1984, a total area of 19 165 hectares in Mpumalanga was used to grow sugar cane. At the time Transvaal Suiker Beperk had two estates from which it grew sugar cane from a total area of 3,965 hectares (Lewis, 1990).

Currently, the South African sugar industry is estimated to be worth R12 billion (USD1 125 360 600) and is ranked 15<sup>th</sup> out of 120 sugar producing countries (SASA, 2014). The industry is estimated to contribute 0.5-0.7% of the country's GDP and employs about 11% of the agricultural workforce of South Africa (ibid). During the 2012/2013 campaign a total of 17 278 020 tonnes of sugar cane, was supplied to the 14 mills<sup>6</sup> situated mostly in

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<sup>6</sup> The 14 milling companies in South Africa are owned by Transvaal Suiker Beperk Sugar Limited Sugar Holdings (Pty) Limited (3), Umfolozi Sugar Mill (Pty) Limited (1), Tongaat Hulett Sugar Limited (4), Gledhow Sugar Company (Pty) Limited (1), Illovo Sugar Limited (4), and UCL Company Limited (1)

KwaZulu Natal but also few in Mpumalanga and Eastern Cape provinces (SASA, 2014). This represented a 25% drop compared with the 2002/2003 harvest, ten years earlier. The sugar cane is grown by milling companies, large scale farmers, and SHFs. Over the years, the amount of sugar cane grown by milling companies has been decreasing. Currently the milling companies contributed 7.94% of the national sugar cane production (SASA, 2014) while in 2001 they contributed 10.4% and 15% during the 1990s (Maloa, 2001). This shows that milling companies depend on contracted farmers (commercial and SHFs) for the supply of sugar cane. The bulk of the sugar cane is produced by large-scale growers and milling companies; this trend is expected to continue as milling companies are promoting black farming development (International Sugar Organisation, 2013), and also as part of land reform transactions and/or Black Economic Empowerment which promotes transfer of land to previously disadvantaged groups, mostly black people (McCarthy, 2007; SASO, 2010).

There are three major institutions in the sugar industry.

- South African Cane Growers' Association (SACGA) represents the interests of large-scale growers (1 413) and SHF growers (22 453) (SACGA, 2014).
- South African Cane Millers' Association Limited (SACMA) represents the interest of the milling companies in South Africa.
- South African Sugar Association (SASA) is a result of ongoing collaboration between SACGA and the SACMA. The board consists of 22 members, 11 from each party and functions independently from the government. The partnership provides services which include cane testing, national and international marketing, agreements between milling companies and growers, and operates a Sugarcane Research Institute and the Shukela Training Centre (Mnisi and Dlamini, 2012;SASA, 2014).

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#### 2.2.4 SUGAR CANE GROWERS

Independent Sugar cane growers are the corner stone of sugar cane production in South Africa as they contribute 92.06% (18.8 million tons) of the annual harvest (SASA, 2014). These growers are found in the sugar cane growing regions of South Africa; mostly in KwaZulu Natal and few in Mpumalanga and the Eastern Cape, see figure 1 below which shows the sugar cane regions of South Africa.

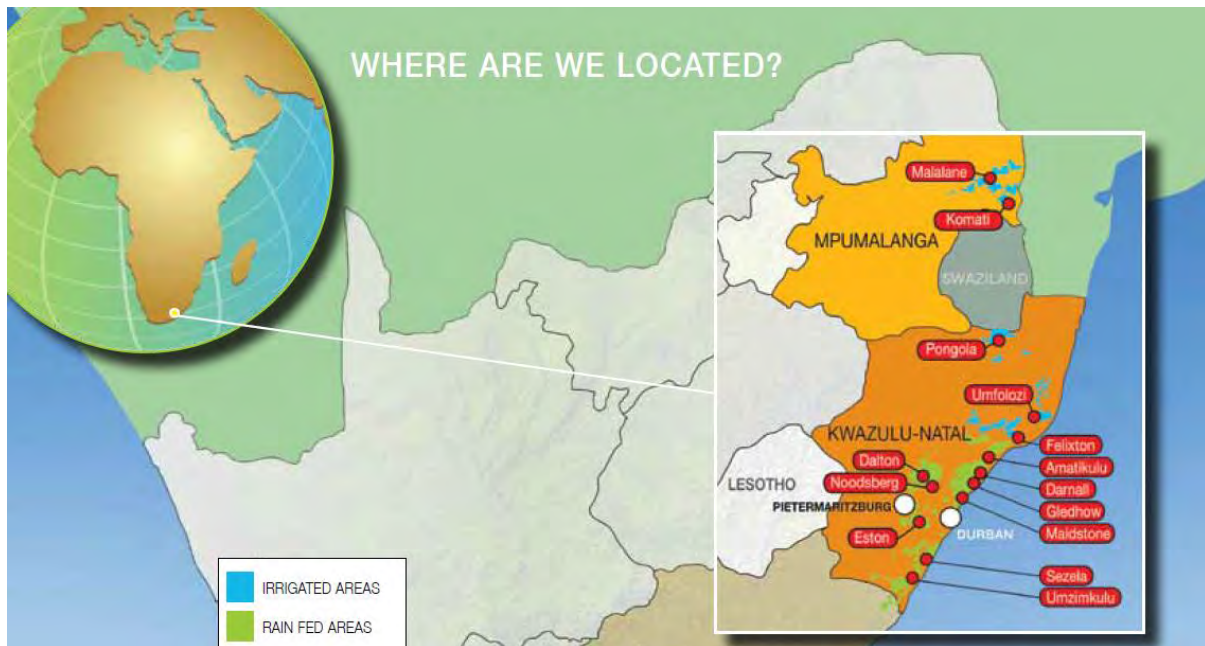


Figure 1 Sugar Cane Producing Areas in South Africa (Source: SASA, 2013)

The number of cane growers has been decreasing over the years. Currently 23 886 cane growers are registered with SACGA (SACGA, 2014), while in 2001 there were 53 000 registered (Maloa, 2001). This has led to a decrease of the area under sugar cane production and a corresponding drop in annual sugar cane production.

The cane growers fall under three categories; large-scale, emerging, and smallholder.

## 2.1 LARGE-SCALE

From the total number of 1 413 large-scale growers, 323 are black emerging farmers of whom a majority obtained the farms through land reform policies while the rest are white farmers (Lewis, 1990). They are the biggest producers of sugar cane, having supplied an estimated 83.8% of the total production of sugar cane (SASA, 2014). The average size of the farms was 353 hectares per producer and during the apartheid years the size of white-owned farms averaged 1,300 hectares.

Since the introduction of a democratic government in South Africa, there has been a decline in the number of white commercial farmers, including those in the sugar industry. This has been mainly caused by the introduction of policies that seek to correct the injustices caused by apartheid policies towards non-white South Africans. Policies such as those comprising Land reform started in 1996, which has resulted in 21% of the freehold land being transferred to black owners (SASA, 2014). Through land reform programmes, 358 emerging black farmers have had the opportunity to purchase sugar cane farms previously owned by white farmers and as a result they now own about 13.6% of the total area under cane (ISO, 2008).

## 2.2 SMALLHOLDER FARMERS

Smallholder farmers (22 453) currently contribute 8.26% of the total sugar cane crushed in mills (SASA, 2013). This category consists of mostly black farmers that have significantly small farms compared large-scale growers. The size of smallholder farms ranges from 0.5 hectares to 30 hectares with an average size of 2.5 hectares (ISO, 2008). As a result smallholder farmers earn 38.5% of what the commercial farmers make before management and tax reduction (Armitage *et al.*, 2009). Most of the Smallholder farmers grow sugar cane on tribal communal land.

Despite the support for smallholder growers (organisational structures, access credit, technical, extension services, managerial, irrigation infrastructure, and training assistance) the total number of SHFs growing sugar cane seems to be decreasing over the past years; 45 500 in 2007, 32,500 in 2010, and 22,453 in 2013 (SASO, 2008; SASA, 2010; SASA 2013). Moreover, not all the smallholder farmers that grow sugar cane deliver their cane. During the 2012/2013 season about half of the total number of smallholder farmers delivered cane to mill (SASA, 2013). Figure 2 below shows the decline of the total area under sugar cane production as well as decline in total hectares harvested.

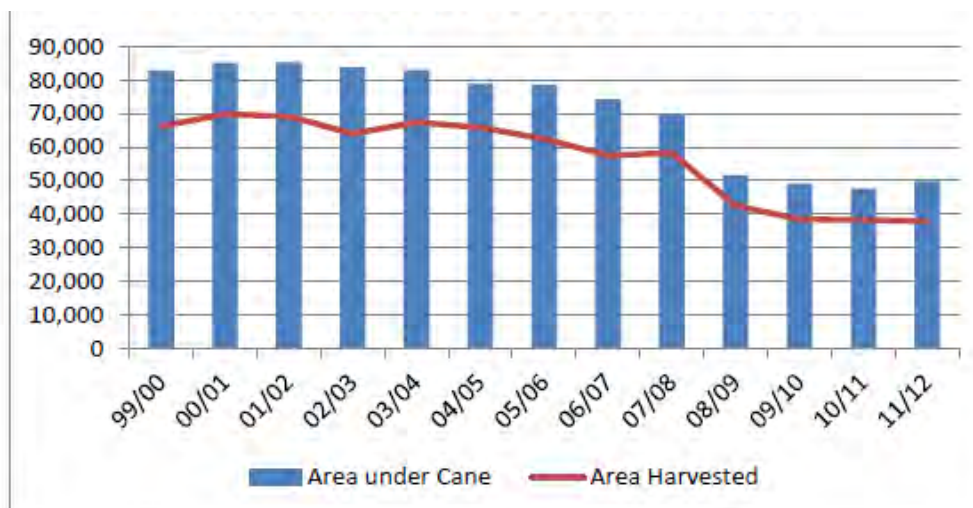


Figure 2 Hectares Harvested by Smallholder Farmers (Source: National Agricultural Marketing Council, 2013)

The decline is attributed to several factors such as the reduction of money received by smallholder farmers for their cane due to the termination of the A and B-Pool Quota Price System in 1997/98; droughts; high transaction costs they face with contractors; poor communication with contractors; withdrawal of inputs and services by private contractors, lack of access to credit; increased production costs; constraining tenure type which limits expansion; debts; low income due to volatile sugar prices; and access to better off-farm employment with better income (Nothard, 2011; Bates & Sokhela, 2003; SASA, 2012; World Bank, 2012).

## 2.2.5 RESEARCH AREA: LOWER KOMATI

The study will be conducted in sugar cane projects of SHFs located in the Lower Komati which is one of the three sub-basins of the Komati river sub-catchment, see figure 3 below. It falls within the Nkomazi area which is roughly an equilateral triangle comprising 323,672 hectares (DALA, 2005). The area includes the former homeland, KaNgwane, as well as the Onderberg area which is occupied by large-scale white commercial farmers. Both SHFs and large-scale farmers irrigate intensively with a total irrigated area of 60,530 hectares of which over 60% is dedicated to sugar cane production (TSB, 2007) which accounts for 20% of South Africa's total sugar cane command area (SASA, 2008).



Figure 3 The Komati Sub-Catchment (MMB et al., 2000)

### SUGAR CANE SMALLHOLDER FARMERS IN LOWER INKOMATI

Transvaal Suiker Beperk opened its second milling operation, Komati Sugar Mill situated 20 km south of Komatipoort, in 1994, see figure 4. SHFs from the former homeland of KaNgwane, currently part of Mpumalanga province, were identified to be one of the suppliers of sugar cane. To enable SHFs to grow sugar cane and supply it to the mill the Nkomazi Irrigation Expansion Programme (NIEP) was initiated in 1993 by the KaNgwane administration. In 1994 the homeland was incorporated into South Africa and the Nkomazi Irrigation Expansion Programme was then handed over to the Department of Agriculture in the Mpumalanga Province (Brown and Woodhouse, 2004:17). Other objectives for the Nkomazi Irrigation Expansion Programme were to generate income for rural families living in former homelands at the time, the KaNgwane and to promote economic development in Nkomazi (Brown and Woodhouse, 2004:17; Waalewijn, 2002). The initiative, worth ZAR180



million (about USD973,814 in 1994), was mainly funded by the Development Bank of South African and Land Bank and the rest of the development costs were obtained from NGOs in the form of grants. Once the smallholders would start production (generating income) the outstanding loans would be paid off through payments generated by them (ten Napel, 2009). The initiative led to the establishment of 34 projects which entailed the building of irrigation infrastructure, resource centre, roads, and initially 7 200 hectares of tribal land for SHFs (Le Roux, 2012). The average size of schemes is 250 hectares with central pivot irrigation systems. The projects are located next to the Lomati or Nkomati River where they draw water for irrigation.

At the start of the project 960 black SHF benefitted from the 7 200 hectares of tribal land which were previously underutilised (MBB, 1997; DBSA, 1990). The SHFs were allocated plots with an average size of 7 hectares, with the smallest being 3.8 hectares and largest up to 30 hectares, to grow sugar cane by traditional leaders, also known as chiefs (FAO, 2004). SHFs paid a once-off joining fee of ZAR1 000 (equivalent to USD5 at the time) to obtain a 99 year right to occupy (TRO) (EF, 2008; TA, 2008; Mavimbela, 2011). Most SHFs switched from growing rainfed maize and cotton to irrigated sugar cane.

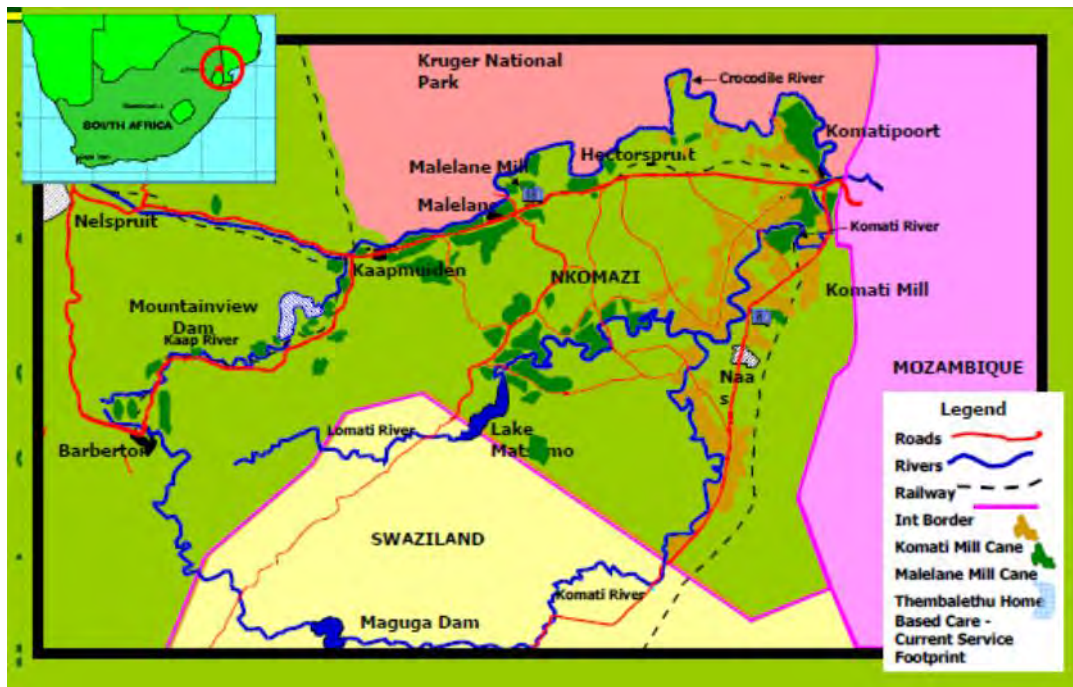


Figure 4 Location of the Sugar Industry in Mpumalanga Province (Source: MCGA, 2010)

SHFs are contracted under a cane contractual agreement by Transvaal Suiker Beperk to supply sugar cane. The division of proceeds ratio between the two parties is determined by the South African Sugar Association see table 1 below for the ratios since 2006.

Table 1 Davison of Proceeds between Millers and Growers (NAMC, 2013)

Year	2006	2007	2008	2009	2010
Growers	63.77%	64.07%	64.07%	64.37%	64.37%
Millers	36.23%	35.93%	35.93%	35.63%	35.63%

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## SUPPORT FOR SMALLHOLDER SUGAR GROWERS

The people of KaNgwane were excited about the project as subsistence farming was hardly sufficient to sustain their livelihoods hence the majority of men normally left their communities to look for jobs (engaging in practices of circular labour migration). As a result the majority of the SHFs are elderly females (ten Napel, 2009; Schoeman, 2012). Most of the SHFs had no experience in growing sugar cane, maintaining irrigation infrastructure, and managing irrigation schedule (Cloete, 2013; ten Napel, 2009). To remedy this, a number of structures were made available to the SHFs. This includes the support of SACGA, the main supporter of South African cane growers, which provides technical and economic research services, mentoring the farmers, represent SHFs in other platforms, and liaising with other stakeholders. In addition to the support offered by SACGA, Transvaal Suiker Beperk mentors and provides training to SHFs, facilitates training offered by the government and other private parties (Cloete, 2013), and provision of extension services such as harvesting and hauling at a cost to the SHF. For financial support, SHF can access credit through the Mpumalanga Growth Agency, Land Bank, and Akwandze Agricultural Finance. The former was formed by Transvaal Suiker Beperk in agreement with SHFs to provide credit during the growing period. Akwandze deducts the money owed by the farmers from the SHF's income. It is not easy for SHFs to receive loans. The Right to Occupy does not allow farmers to use their land as collateral and older farmers (70+) cannot be granted loans as well as those with low yields (ten Napel, 2009).

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## CHALLENGES FACED BY SMALLHOLDER FARMERS

According to a study conducted by (Cloete (2013), the project has not attained the expected outcomes; increasing the income for smallholder farmers and eradicating poverty in the former homelands. Furthermore, the total tons supplied by SHFs to the mill as well as the tons harvested per hectare have been decreasing over the past years, therefore putting the mills at a risk of operating at a loss and eventually shutting down. In 1998 SHFs harvested 110t/ha and by 2004 and 2006 they could harvest only 74 t/ha and 63t/ha respectively (Tsb, 2007; Tsb, 2008). Moreover smallholder growers are reported to be making very little profit or almost no profit from the sugar cane sales (Cloete, 2013; ten Naples, 2009; Thomson, 2010). Studies conducted in Komati suggest that there are a number of challenges that inhibit the SHFs to reach their full potential and to stay in the industry. Cloete (2013) suggests that poor management of farms as a result of low literacy, poor management of irrigation schedules, and poor record keeping contribute to the decline. The rise of production costs, especially of inputs such as fertiliser, transport, labour, and electricity also contribute to the decline of SHF performance and the productivity of their farms (Thomson, 2010; Sartorius & Kirsten, 2004). For instance, the production costs between 2007 and 2008 went up by 44% while average income increased by only 15% (ten Napel, 2009). The costs of fuel and fertiliser in particular seem to be constantly increasing at a pace that SHFs cannot keep up with. In 2008, the cost of fertiliser had gone up by 50% of the previous year's

price while the cost of fuel increased by 339% between 2003 and 2013. Fuel prices mostly affect SHFs whose farms are situated further from the mill, 30km +, as they face high costs for the transportation of sugar cane.

Most farmers end up taking a loan from the Land Bank or Akwanzze Agricultural Finance Corporation to meet the above mentioned challenges related to increased production costs. However, a study conducted by ten Napel (2009) indicated that most farmers are heavily indebted. The agreement between the two parties, SHFs and creditors, allows the latter full access to farmer's full income after production cost have been deducted and as a result about 38% of the SHFs do not receive any income (Akwanzze Agricultural Finance, 2008).

Because of these challenges, Tsb envisages that the number of SHFs in Komati growing sugar cane as well as their farm productivity will continue to decrease leading to insufficient sugar cane supply to the mill (ten Napel, 2009). However SHFs in Komati seem to be determined to continue growing sugar cane mostly because of the market access, Tsb mill, and irrigation infrastructure (Cloete, 2013).

## 2.3 PROBLEM STATEMENT

In South Africa, the total number of smallholder growers in sugar cane production is declining as well as the farm productivity, thus indicating that smallholders are struggling to stay competitive in the industry. Despite the support offered by the government and the sugar industry, smallholder growers face a number of challenges which include high production costs, poor farm management, high charged costs by contractors, and debt.

In a global context, the sugar industry is embracing sustainable sugar cane production. This initiative started out as a means to introduce alternative trade that protects the interests of the small growers who are disadvantaged by the low prices and economies of scale of the conventional trade. However, the growth of sustainable sugar cane production through certification schemes has sparked interest of key players (non-governmental organisations, key market actors, transnational corporations, producer organisation, environmental organisations, and states) which are all given a seat on the discussion table to "democratically" establish standards of sustainable production. As these different actors get together and influence the establishment of sustainable sugar cane production, processing, and channels for marketing, the initial rationale behind alternative trade is being reshuffled and the cause is changed. Hence smallholder sugar growers are no longer represented in the discussion on the table. Rather, the interests of powerful actors prevail and in turn determine the standard of sustainability (Mutersbaugh et al., 2005). While organisations such as Bonsucro pride themselves over the fact that their membership is open to all actors of the sugar industry and that their standards are then devised democratically by these members (Bonsucro, 2014) it must kept in mind that these actors have different interests and various degrees of articulating power thus creating a stage where sustainability standards are being contested and the most powerful actors get to determine Bonsucro standards for sustainable sugar cane production. This may affect the pro-poor aspect of fair trade negatively. Whereas consumers in the global North assume they support the poorer sections of the farming community in the South, through buying fair trade or certified sugar, it is



actually a powerful coalition of sugar industry and large scale growers that tweaks the pro-poor dimension in favour of environmentally sustainable production.

With that said, a lot of questions or rather concerns emerge:

(1) It is unclear how smallholder sugar production has collapsed in South Africa despite all the available support in the sector;

(2) It is unknown how the fair trade certification process has been articulated in South Africa by a coalition of sugar stakeholders in such a way that its emphasis has come to lie on sustainable production practices instead of pro-poor aspects fostering better payment for smallholder growers and gender equity;

(3) It is unknown how the Bonsucro certification process can result in tangible benefits for smallholder growers in the Inkomati in SA and how this will affect existing business agreements between Millers and smallholder growers.

## 2.4 OBJECTIVES OF THE STUDY

The objectives of this study are as follows:

- Establish present production practices, livelihood effects, gender equity, access conditions to support and reasons for the decline in number and production of sugar by smallholder irrigators.
- Establish the key dimensions and inhibitions/constraints of the business model guiding present smallholder-miller partnerships and its effects on gender, livelihood, race and class equity.
- Establish the different actors, along with their interests, that establish sustainable production standards and their impacts on pro-poor livelihoods and pro-equity
- Conduct a gap analysis to be filled by smallholder farmers who are to produce sustainable sugar cane by identifying added practices and changes to be made in the current change
- Determine the added value of sustainable sugar cane production for smallholder growers in terms of its potential for providing for increased income, increased market shares and increased gender equity
- Determine if the certification will likely prevent smallholder farmers from exiting the sugar cane industry

## 2.5 HYPOTHESES

1. The collapse and decline of smallholder sugar production in Nkomati, South Africa, is driven by the interest of the young generation to pursue white collar jobs rather than farming.
2. The core reason behind the translation and articulation of the fair trade standards into an emphasis on environmentally sustainable production instead of pro-poor and pro-equity dimensions is that the coalition supporting certification in SA is dominated by powerful corporate interests.

3. Adoption of Bonsucro sustainable standards (determined by different actors at a global level) by South African sugar cane SHFs will bring changes in the management of the farms which may contribute to the challenges currently constricting their success in the industry if the required support to farmers is not offered.
4. The process of obtaining a certificate and staying compliant might not be rewarding to smallholder cane growers as the added value of certification is not tangible and rather a social construct to make the ailing sugar industry more profitable.

## 2.6 CONCEPTS AND FRAMEWORK

### MANAGEMENT

Management of smallholder irrigation schemes have been conducted under irrigation management and farm management. Studies around management of smallholder irrigation schemes started in the early 1970s when they reported to perform inefficiently (Lenton, 1988: 5; Mollinga, 1998: 11). These studies mainly focussed on factors contributing to optimal water control/delivery. A review of these studies by Jurrian and de Jong (1989) found that a wide variety of topics covered included participation of the smallholder farmers in the management of the scheme, water distribution across all levels in the scheme, costs recovery, and organisational and institutional forms. Currently, there are 3 approaches used to study smallholder irrigation scheme; technocratic, organisational, and socio-technical (Veldwisch, 2012).

- The technocratic approach which plays much attention on the technical aspect of the irrigation system and focuses its management focuses on operation and maintenance of the irrigation infrastructure.
- Organisational approach focuses on management of existing irrigation schemes focusing on organisational requirements for achieving equitable distribution of water amongst the SHG and of existing
- Socio-technical approach focuses on the interaction between the social, technical, and technical aspects that hinder or allow successful management and operation of irrigation schemes (Mollinga, 1997 revised by Wester, 2010).

On the other hand, farm management studies are centred on how scarce resources (capital, labour, time, land, water, and management) are obtained and organised in a way that the goals of the farm are met (FAO, 1980; FAO, 2001). Farm management is also expressed in economic terms as science of organising and controlling resources in order to achieve the maximum profits desired by the farmer (Nix, 1979). In the case of SHF contracted to agribusinesses, to a large extent farm management is influenced by the latter as they have high control over the quality of products produced. However, other resources (labour, time,) are often managed by the farmers.

The introduction of sustainable standards is adopted in the context where both types of managements are in operation.

Irrigation and farm management have clear objectives (efficiency in water control/delivery and maximising profits respectively). Both management practices largely deal with the interest of the farmer; ensuring that the irrigation schemes operate efficiently and profit is generated. However, sustainable standards which are established by different stakeholders at a global level are implemented in order to achieve a certain quality desired by the consumer. Management, therefore, no longer becomes an interest to the farmer in reaching his/her goals (efficiency or the maximising profits) but also an interest to key market actors, social and environmental actors, and the consumer.

Therefore for this study, management is defined as the day-to day activities carried out by different actors in order to successfully meet the objectives of the smallholder irrigation scheme.

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## SHARE VALUE FRAMEWORK

According to Bonsucro (2014) certified sugar and ethanol have extra value as they are produced based on sustainable standards. The added value gained is measured against:

- Access to exclusive markets which have emerged from the commitment to buying sustainable products by private sector and governments.
- Better quality of the products
- Image of goodwill to the consumers as they associate sustainable brands with; fair price to the growers or factory worker, healthy working conditions, personal health, and environmentally friendly. And thus such consumers will choose sustainable produced products over conventional products
- Reduced mill and farm costs (Schwarzbach, 2013).

In order to determine how this added value is shared between the smallholder farmers and the sugar milling companies, a Share Value Framework is used. The framework developed by Vermeulen and Cotula (2010) assesses how value is shared between partners (SHF and milling companies). They identify 4 criteria that are used for this analysis;

- assets (such as ownership of the business, key assets including land, technical knowledge)
- voice (decision-making power)
- risks (such as commercial, political, reputational), and
- rewards (such as distribution of economic costs and gains).

In this case, the sustainable production certificate is identified as asset that brings added value to the business.

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## SUSTAINABLE LIVELIHOODS APPROACH (SLA)

To study the present partnership between small growers and milling companies in Nkomati and its impact on livelihoods and gender, I will make use of the Sustainable Livelihoods Approach (SLA) framework, see figure 5 below. The core principles underlying SLA are that poverty-focused development activities should be people-centred, responsive and participatory, multi-level, conducted in partnership, and sustainable by incorporating four key

dimensions to sustainability - economic, institutional, social and environmental sustainability (Ashley & Carney 1999, p. 7).

According to figure 4 below, there are three groups of components in the framework: (1) the asset portfolio forming the core element of livelihood, (2) the Vulnerability Context and Policy, Institutions and Processes, and (3) the loop linking livelihood strategies and livelihood outcomes. It identifies five assets which contribute to building a livelihood; financial, human, natural, physical, and social capital.

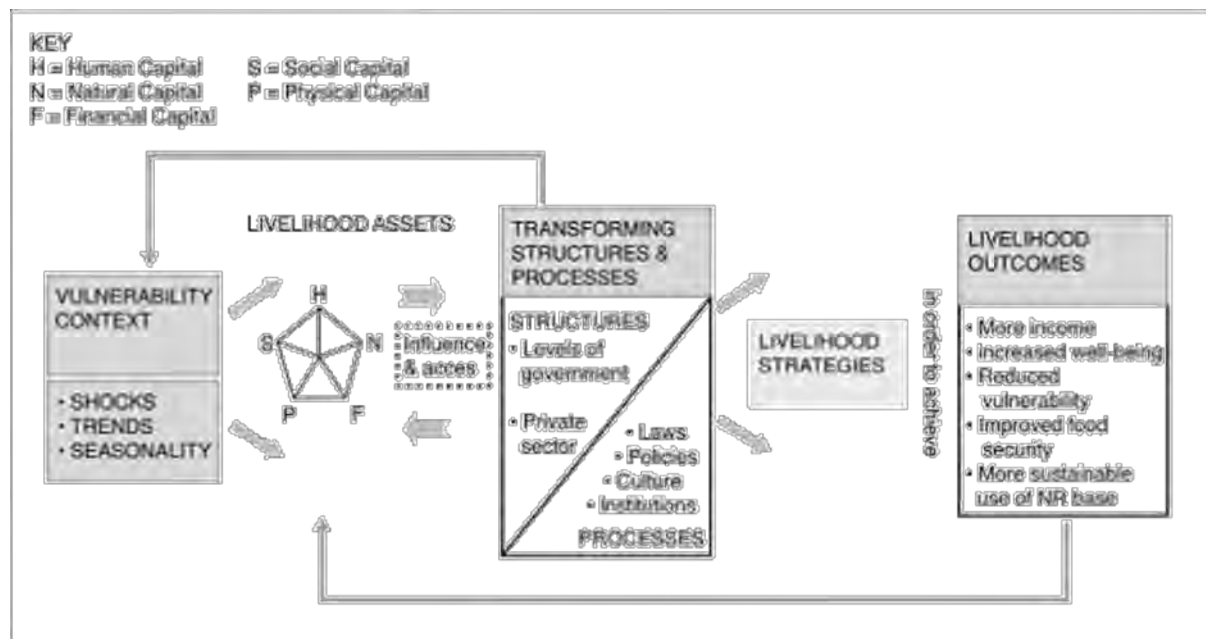


Figure 5 Sustainable Livelihoods Approach (Source: DFID 2001: livelihoods@difd.gov.uk)

## POLICY ARTICULATION AND IMPLEMENTATION

To study the impact of sustainability production certification of the livelihoods of the smallholder farmers I will make use of the work of Long and van der Ploeg (1989) and Mollinga (1993). During the writing up of the proposal, I did not have sufficient time to familiarise myself with the frameworks they suggest to conduct such studies.

### 2.7 RESEARCH QUESTIONS

#### Main research question 1

What are the current day-to-day farm management practices and equity benefits of smallholder cane out growing and why is the sector in decline?

- What are the key day-to-day practices of sugar cane production in Nkomazi schemes?
- What are the effects of cane production for smallholders' livelihoods, and gender relations?
- What are the key reasons for smallholder out growers to leave the sector?

## **Main Research question 2**

How has the policy process and articulation of certification practices in South Africa been shifting its emphasis from pro-poor aims to environmental sustainability practices and how does this affect smallholder out growers' concerns?

### ***Sub-questions***

- Who are the actors that participate in the Bonsucro policy formulation arena? And, which actors are excluded?
- What is at stake in the arena, what is the issue/are the issues? What is it that people talk/negotiate/struggle about?
- Which resources and strategies do the different actors employ, and what are the 'rules of the game'?
- How is the arena shaped in time and space? When and where does interaction take place?
- What is the outcome of the interaction: what concrete results and effects does it produce?

## **Main research question 3**

What support is required by smallholder farmers to successfully comply with the Bonsucro sustainability standards?

### ***Sub-questions***

- What are the changes in the day-to-day farm management practice as a result of the Bonsucro production standard?
- What support is required by farmers in complying with the standards?
- How do the smallholder farmers interpret the sustainable production standards?

## **Main research question 4**

How will the value of certification be shared between the smallholder farmers and the milling company?

### ***Sub-questions***

- What is the added value of certification for sugar milling companies according to Bonsucro?
- What is the added value of certification for sugar smallholder farmers according to Bonsucro?
- What role do the different partners play in the decision-making process related to the adoption
- How is the decision-making process regarding the adoption of a sustainable production certificate and process of compliance likely to be structured between the smallholder farmers and the milling company?

- How are the risks concerned with adoption of sustainable production standards shared amongst the partners?
- What rewards do smallholder farmers stand to obtain through a sustainable production certificate?
- What rewards does a milling company stand to obtain through a sustainable production certificate?

## 2.8 METHODOLOGY

My initial ideas regarding methodology focus on a multi-sited ethnographic study in Nkomazi, South Africa, to study present day partnerships and livelihoods of smallholder cane out growers. I would propose to select two case study schemes in Nkomati of smallholder growers and mills. In the two cases I would study the livelihood and (gender, race, class) equity effects of the existing partnerships, trying to understand why the sector is in decline and scrutinize whether this is due to a change in aspirations of the younger generation of smallholder growers.

Also I would include a case study on the case of the Bonsucro certification process, reconstructing the policy process resulting in a particular articulation of Fair Trade/Bonsucro principles by a coalition of powerful actors. The latter would require stakeholder identification, interviews, and reconstruction of key events for the South African context.

Finally I want to perform a scenario development study on the two case study sites, scrutinizing how the Bonsucro principles would affect the production process and sharing of benefits as well as equity practices, when different variables of the Bonsucro process and conditions are modified. Possibly when the Bonsucro certificates will be applied to smallholders in South Africa I can actively follow this process to see how the conditions affect the above mentioned practices real life. The latter would entail the performance of interviews with key stakeholders, making of observations in the field and review of literature on other relevant cases in the region.

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