

REVIEW OF THE LDA STRATEGIC PARTNERSHIP MODEL AT TSWELOPELE AND STRYDKRAAL IRRIGATION SCHEMES IN THE SEKHUKHUNE DISTRICT



REPORT COMPILED BY

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ABSTRACT

In Sekhukhune District of the Limpopo province, seven (7) irrigation schemes were revitalized through the installation of floppy irrigation system by the Limpopo Department of Agriculture (LDA). Prior the revitalization of the schemes, farmers were allocated Units where they were farming individually. The improved infrastructure and the commercialization model which was facilitated by LDA required famers to merge their units to increase the economic scale. Farmers at these irrigation schemes are mostly adult black women who were not having tractors & implements, production costs and skills to farm at commercial level with high technological irrigation system to match with the improvement of the scheme. The strategic partnership model was then introduced to all irrigations schemes aiming at: knowledge & skills transfer to farmers, linking the farmers with potential markets, and provisioning of production costs & machinery.

Out of the seven revitalized irrigation schemes where strategic partnership model was implemented in Sekhukhune district, one scheme is currently functional. In the six non-functional irrigation schemes the partnership between the stakeholders ended by either the strategic partner (SP) pulling out or the farmers not wanting to work with the SP anymore. LDA identified the non-functionality of the six irrigation schemes as a problem and commissioned a study to review the strategic partnership model through the Agricultural Research for Development (ARD) approach. A team of professionals from various disciplines was formed to review the SP model. The team members were orientated to tenets of the conventional/scientific research versus participatory research; they then went through knowledge acquisition phase of ARD at Tompi Seleka Farmers Development Centre to be skilled on action/participatory research; the training was facilitated by International Centre for Development Orientated Research in Agriculture, Agricultural Research Council, University of Limpopo and University of Venda. Unlike the conventional research, ARD integrates research within the broader, more complex development process, exploring livelihoods through systems thinking.

Interview checklist was prepared and every team member knew what was expected from the checklist; this gave the researchers opportunity to probe for more information. Key informant interviews, focus group sessions were implemented using participatory tools such as Venn and Chapatti diagrams among others to ensure that participants freely air their views and learn during the teams' data collection. The following stakeholders were interviewed; Strategic Partners (SP), Extension officers working with the schemes, the farmers, councillors and the Traditional Authority. During the diagnosis of the problem, it was discovered that lack of transparency on financial matters is the main cause of conflicts between the SP and the farmers. It was found that farmers agreed to register as a Co-operative without thorough understanding on how it is to function and what this actually entails. Merging of individual farmers units into one-large plot resulted into farmers losing sense of ownership and control resulting in less commitment to the operation of the scheme. It was also noted that the farmers' role in the day-to-day operation of the scheme was not clear indicating that perhaps the transfer of skills was not appropriately done.



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LIST OF ACRONYMS

- AMS Agricultural Management Services
- ARDC Agricultural Rural Development Corporation
- ARC Agricultural Research Council
- AWC Arthur William Creighton
- BIC Bantu Investment Corporation
- DWA Department of Water Affairs
- GPS Geographic Positioning System
- ICRA International Centre for Development-orientated Research in Agriculture
- IDP Integrated Development Agency
- LDA Limpopo Department of Agriculture
- LDC Lebowa Development Corporation
- MMI Mafura-Makhura Incubator
- MSc Masters Science
- NSK Noordeleke Sentrale Katoen
- PRA Participatory Rural Appraisal
- RESIS Revitalization of Smallholder Irrigation Schemes
- SP Strategic Partner
- SP Model Strategic Partnership Model
- TOR Terms of Reference
- UL University of Limpopo

UNIVENUniversity of Venda



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1. INTRODUCTION

1.1 BACKGROUND

One of the mandates of LDA is to develop the emerging farmers to become successful commercial farmers. To this effect, the LDA identified potential farming areas to be developed into commercial irrigation schemes through the Revitalisation of Small Holder Irrigation Schemes programme (RESIS). RESIS programme is one of the departmental flagship programmes aimed at improving irrigation schemes. A number of irrigation schemes have benefitted from the programme through installation of modern irrigation infrastructure. In the Sekhukhune District, seven (7) irrigation schemes were identified for revitalization and floppy irrigation systems were installed. The strategic partnership model was introduced to help address the challenge of the farmers in the commercialization of irrigation schemes. The strategic partnership model had a clause indicating that farmers and a commercial farmer (strategic partner-SP) should make an agreement on the following:

- Skills transfer/Empowerment,
- Mentorship,
- Full participation from both parties, and
- How both parties will benefit.

The strategic partnership model further indicates that the incentives for the SP appointed are to be in the form of profits from farming, while for the emerging farmers it was a combination of factors. These factors included the SP financing the inputs and machinery, providing farming skills, management and expertise, transfer of skills and mentoring, providing access to markets and bearing all the risk.

South Africa has approximately 1, 3 million hectares of irrigated land for both commercial farming and subsistence agriculture (Bembridge, 2000; Perret, 2007). The Limpopo province has 126 small-scale irrigation schemes on just under 20 000ha; with 12 000 farmers (Shaker, 2005).

The Limpopo Employment Growth and Development Plan (LEGDP), which culminates from the revision of the Provincial Growth and Development Strategy (PGDS), is a policy framework that contains the strategic vision of the province with the aim of growing the economy and curb the absence of sustained economic growth and job creation, which are essential to reduce poverty and improve living conditions. It addresses the problem areas of growth, creation of descent jobs and poverty reduction within a broad economic wide framework.

It is a five year plan (2009-2014) which should evolve into a long term strategy of the province, the Limpopo vision 2030. The plan is underpinned by the 14 pillars which are the key action programmes designed to achieve structural change in critical areas of the provincial economy and contribute towards achievement of the LEGDP objectives. The High Impact Growth Catalytic projects have also been identified to operationalize the key action programmes. The LEGDP requires all sector departments, municipalities, private sector and civil society to

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contribute towards achievement of its stated objectives.

In contributing to the LEGDP objectives, the LDA has the responsibility to champion and coordinate the agricultural and rural development pillar which focuses on ensuring that the contribution of agricultural sector to the provincial economy is improved.

1.2 INSTITUTIONAL FRAMEWORK

The ARD Hub comprising of LDA, ARC, ICRA, University of Limpopo and University of Venda, developed Terms of Reference (TOR) for research to be carried out to try to address the challenges facing agriculture in Limpopo including the irrigation schemes.

A team of five researchers from the ARC, LDA, Tompi Seleka College of Agriculture, and the University of Venda were trained in the ARD approach and tasked to review the LDA Strategic Partnership Model at Tswelopele and Strydkraal Irrigation Schemes in the Sekhukhune District.

1.3 ROBLEM STATEMENT AND JUSTIFICATION OF THE STUDY

The LDA supported farming areas to be developed into commercial irrigation schemes through RESIS Programme. The lands of individual farmers were consolidated into larger and more economic units and irrigation systems were installed by LDA. The strategic partnership model was implemented in all revitalized irrigation schemes in the Sekhukhune district.

The model was chosen because:

- I. Farmers were not skilled to operate the system
- II. Farmers did not have farming implements
- III. Farmers did not have operational costs to farm a t commercial level
- IV. Government needed a model that would require lower levels of support from them.

Out of seven revitalized irrigation schemes where strategic partnership (SP) model was implemented, currently one scheme is functional that is Strydkraal irrigation scheme. This necessitated the review of the model.



1.4 LOCATION

The Sekhukhune District area measures approximately 1,326,437 ha in extent. The area is largely rural and is located outside of major towns and cities, with Pretoria and Polokwane being approximately 200 km and 150 km away respectively. Sekhukhune District consists of 5 local Municipalities namely Fetakgomo, Greater Groblersdal, Greater Marble hall, Greater Tubatse and Makhuduthamaga. The study focused on two irrigation schemes namely Strydkraal irrigation scheme in the Fetakgomo Municipality which is functional and Tswelopele irrigation scheme in the Tubatse Municipality and is non-functional.

The geographic positioning system (GPS) coordinates for the Strydkraal irrigation scheme are: 29°43′E 24°26′S. Tswelopele irrigation scheme lies on Praktiseer farm. Its GPS coordinates are: 30°20′E 24°35′S.



Figure 1.1: Map of Sekhukhune District

Source: LDA, Geographical Information System Section, 2012

1.4.1 Natural Resources

Terrain:

The area consists of open hills and lowlands with medium drainage density and streams frequency adjacent to the Olifants River, lying at an altitude of approximately 750 meters above sea level.

Climate:

The area is characterised as a semi-arid region receiving 450-500 mm rainfall annually, with most of it in summer. Thus there is a need for irrigation in order to supplement the natural rainfall in order to farm commercially.

Soil type:

Hutton soil form dominates in the irrigation schemes with variability in terms of soil depth, soil texture and structure. Generally the soil depth is above 60 cm, with 10% clay. The agricultural potential of these types of soils is high and is suitable for most agronomic crops and vegetables such as maize, wheat, sorghum, potatoes.

1.4.2 Demographics

According to the Sekhukhune Integrated Development Plan report of 2004/2005 there are 967 197 people living in the District. There are approximately 270 122 people and 53 850 households living in the Greater Tubatse area. The population of Tubatse constitutes about 28% of the Sekhukhune District Municipality population.

Ninety-nine percent of the population is Black and 1% White. The average number of people living in one household (under one roof) is 4.72, an estimated 7.1% of the population, (19 195 people) stay in 11 traditional villages in Tubatse.

Most of the farmers in the irrigation schemes are adult with low Literacy levels. The District at large has generally low levels of Education. Due to time limitations, this study could not establish the implications of the demographic characteristics of the district on the irrigation schemes.

1.4.3 Background of Strydkraal Irrigation Scheme

The Strydkraal village has five irrigation schemes namely Strydkraal A, Ikageng, Kgoshi Masha, Mabokotswane, and Mooiplaas which fall under an umbrella body for the Strydkraal irrigation schemes. There were 137 members in the Strydkraal Scheme initially to date there are 293 farmers who constitute the Irrigation Scheme.

Prior to 1977, farmers in the Strydkraal irrigation scheme were using the furrow irrigation system; they owned individual plots and paid taxes for their individual plots. The farmers had agreements in place regarding irrigation scheduling so that all plots could be irrigated. They were not hiring labour but relied on family labour for operations on the plots. The scale of operation was subsistence with no use of inorganic fertilizers.

In 1977, the movable sprinkler system was introduced while farmers still owned individual plots. Arrangements for irrigation scheduling were put in place with the farmers sharing the sprinklers. In order to increase production, farmers used inorganic fertilisers e.g. LAN with this mode of irrigation system. This operation was under a



partnership with a commercial farmer and it ended in a sour note when farmers realized that the sharing of dividends was not done fairly.

Between 1984 and 1997 the farmers had a five year contract farming with a strategic partner called Agricultural Management Services (AMS) with the government taking a leading role. AMS was under the leadership of Mr Swaart and supplying their produce to Noord Transvaal Korporasie (NTK). The commonly grown crops were maize and wheat. AMS would bring machinery, plough the area, plant crops and provide fertilizers and pesticide for both crops. Farmers received 100% of the maize harvest and four bags of wheat crop each, while the other wheat harvest goes to AMS; this was the part of the agreement between farmers and AMS. At the end of the five year contract, farmers refused to renew the contract with AMS, because they realized that the sharing of dividends was not fair. Farming operations did not take place after this since the farmers did not have tractors, inputs and money to pay for electricity. This was followed by floods which damaged the irrigation scheme and resulted in the fields lying fallow for some time.

The farmers then requested for assistance from the government to resuscitate the infrastructure. Government assessed the situation and proposed that part of the scheme relocate to another site because flooding was going to be a recurring problem. In 2008, the government installed the floppy irrigation system on the portion of the scheme which was not a flood plain through the RESIS program.

After the Tribal Authority allocated land to farmers from the flood plain, the Strydkraal irrigation scheme farmers and LDA held consultative workshops from which the farmers selected the centre pivot irrigation system. Fourteen centre pivot irrigation systems were installed in 2011 at Strydkraal Irrigation Scheme. The LDA identified Arthur William Creighton (AWC) as a potential strategic partner. Meetings between the strategic partner, the umbrella body and the scheme farmers were organized, to discuss how the strategic partnership would work. The irrigation scheme has been operating in partnership for the past three years and the contract was renewed in 2011 for operation until early 2014. Under this partnership, potatoes were the main crop grown with other crops being maize, sugar beans, wheat and butternuts.

1.4.4 Background of Tswelopele Irrigation Scheme

Tswelopele Irrigation Scheme was initiated in 1977 by the Bantu Investment Corporation (BIC). The irrigation scheme is located in the Greater Tubatse Local Municipality along the Steelpoort River outside Burgersford in Praktiseer. The scheme was managed by the successors of organisations which were Lebowa Development Corporation and the Agricultural Rural Development Corporation (ARDC). After 1994, the process of transferring land to communities started with portions of 5ha being demarcated and leased to individual farmers.

The irrigation scheme was redesigned in 1999 to upgrade it from subsistence to commercial farming. In 2000, potential farmers were screened through interviews. Successful farmers started planting in 2003 in partnership with Noordelike Sentrale Katoen (NSK). Not all farmers agreed to enter into partnership with Mr Swaart of the NSK because they did not want to plant cotton which was the main crop for the NSK. Farmers who were not partnering with NSK acquired a loan from the Land Bank and chose to plant tomato. The loan from Land Bank was used to install sprinkler irrigation system and procure production inputs while; NSK installed the sprinkler irrigation system for the farmers who they had entered into a contract with. They also provided production inputs such as seeds and fertilizers. During the planting season, fumigation of cotton affected the tomato fields, due

to the close proximity of the field. This led to conflict between the cotton and tomato farmers as the pesticide was destroying the tomato crop. Other challenges encountered in the partnership with NSK and those who got loans from Land bank was the payment of electricity costs as they were using the same irrigation pumps. These challenges affected the partnership with NSK negatively and it lasted for only one year. After the collapse of the partnership between the farmers and NSK, NSK removed the Sprinkler Irrigation Systems they installed for the farmers; this negatively affected even the farmers who acquired loans from the Land Bank and farming operations stopped.

In 2005, LDA started a process of revitalizing Steelpoort and Praktiseer irrigation schemes through the RESIS programme. Farmers who had the sprinkler irrigation system on the ground agreed that the system could be removed without compensation; all farmers participated in clearing the area for the new irrigation scheme for the entire irrigation scheme. The floppy irrigation system was then installed and four dams were lined and fenced on 440 hectares which accommodated 83 farmers. The process of installing the floppy irrigation system was completed in 2008. After the installation of the irrigation system the scheme remained fallow due to farmers lacking machinery, production inputs and technical skills to operate the floppy irrigation system.

The strategic partnership model was then introduced in Tswelopele Irrigation Scheme with Arthur William Creighton, appointed as the strategic partner by LDA. The crops which were planted in the irrigation scheme under the partnership included potato, dry bean and maize. This choice of crop was in line with the market contract that AWC had already established.

1.5 PURPOSE

The purpose of the study was to review and analyse the implemented strategic partnership model in the irrigation schemes and detail recommendations for improvements. The ARD research methodology was used as a preferred participatory diagnosis model in identifying challenges, elements of the SP model and further explores areas where in-depth studies are required.

1.6 OBJECTIVES

- To investigate the factors hindering the sustainability of the irrigation schemes.
- To contribute towards the development of an appropriate strategic partnership model for the irrigation schemes.
- To identify areas for further research by university students doing MSc studies at University of Limpopo and University of Venda.



1.7 CENTRAL RESEARCH QUESTION

• How has the strategic partnership model contributed towards sustainability of the irrigation schemes?

1.8 SECONDARY RESEARCH QUESTIONS

- i. What are the components of the strategic partnership model?
- ii. Which stakeholders are most affected by the functionality/ non-functionality of the irrigation schemes?
- iii. What are the factors contributing to the functionality/ non-functionality of the irrigation schemes?

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2. METHODOLOGY

2.1 AGRICULTURAL RESEARCH FOR DEVELOPMENT

As many stakeholders have expressed dissatisfaction about how agricultural research and development has been conducted in silos, i.e. scientists generate technologies, local extension officers' transfer the new developments to the farmers and farmers are expected to adopt these technologies. Dissatisfaction with this linear model has resulted in new ways of improving and integrating the actions of all stakeholders. A team of professionals from different disciplines was formed to review SP model in the schemes using the ARD approach.

The team members were orientated to tenets of the conventional/scientific research versus participatory research. They went through knowledge acquisition phase of ARD and gained skills on Participatory Action Research (PAR). Unlike conventional research methods, ARD (which falls under PAR) integrates research within the broader, more complex development process, exploring livelihoods through systems thinking. It is based on a set of overlapping principles, the need to involve all actors in research, including farmers, to respond to innovation challenges, using qualitative and quantitative research methods.

Stakeholders at Tswelopele and Strydkraal irrigation schemes together with the ARD Irrigation Research team (IRT) used various participatory techniques to analyse the SP model. Potential solutions proposed by stakeholders interviewed were screened and prioritized in their merits to deal with the identified problem i.e. sustainability of irrigation schemes. Due to the limited time allocated for the study, the ARD irrigation team could only diagnose the problem and recommend areas where in-depth research is required. The ARD Learning Cycle was followed when carrying out the research, shown 2.1 (ICRA, 2011a).ARD Learning Cycle consists of two integrated cycles: an action cycle and a learning cycle:





The ARD learning cycle consists of three stages which the research team used to facilitate the stakeholder interaction:

- Forming partnership: The irrigation team formed a partnership with the LDA Sekhukhune district management and Strydkraal Tribal Authority to participate in the review of the SP model in Tswelopele and Strydkraal irrigation farmers.
- Achieving a common understanding of the challenges: Key informant, farmers, LDA officials, Local Councillors etc. were interviewed to gain wider context of the challenges of the SP model; areas of improvements were also defined.
- Screening and evaluating the different options for improvement of the system: Irrigation team consolidated and analysed the findings and made recommendations for sustainable irrigation schemes management.

The learning cycle also consists of three stages:

- Planning: irrigation team together with Sekhukhune district management collectively decided on how to approach the irrigation farmers of both the irrigation schemes.
- Doing: irrigation team collected data from the irrigation farmers, extension officers and the strategic partner using participatory tools such as the Chapatti diagram, focus group sessions and semi-structured interviews.
- Reflecting: The Irrigation team conducted a Stakeholder workshop where preliminary findings were presented. The findings were also presented to the other ARD research teams, reviewers and facilitators to evaluate the effectiveness of the methodology.

The review of the SP model was triggered by the realization that there is a problem; LDA identified the problem and drafted terms of reference for the study. A team of various expertise was formed and there was continuous interaction with LDA in understanding the problem / terms of reference. The team used the ARD processes of gathering data (Figure 2.2) as a guide.



Figure 2.2: The cycle of description, explanation and verification in ARD

Source: Rural Appraisal Methods-Approaches, Training Material on ARD. ICRA, 2011b

2.2 PRELIMINARY PHASE

The team attended a two week ARD core course at Tompi Seleka Farmer Development Centre to develop basic knowledge on the concepts, tools, methodologies and techniques used in participatory research.

ARD facilitators spent three days from 9th to the 11th of January 2012 assisting the research team preparing for the field study. During this period the team finalized research plans, developed work plans and the interview checklist. A 4-pile sorting presentation was compiled which was presented consisting of information already known, the must know, good to know and further research recommendations, meetings with stakeholders were scheduled and logistic planning finalized.



2.3 FIELD STUDY PHASE

This phase primarily consisted of field collection of primary data. The research team started by meeting Sekhukhune District Management (LDA) team at Lebowakgomo District Agricultural offices on 11 January 2012. The aim was to form a partnership and create a common vision about the problem identified in the Memorandum of Agreement between LDA and the primary ARD program managers regarding the sustainability of the irrigation schemes in Sekhukhune District. A work plan was presented and amendments were incorporated. Meetings with the Strydkraal Tribal Authority, farmers, LDA extension officers, local councillors, and the strategic partner were also held. These sessions were implemented using participatory tools such as Venn and Chapatti diagrams to ensure that participants freely air their views and learn during the teams' data collection. People, have valuable constructive contributions to make but find it difficult to express themselves at a meeting (Gulwa *et al*, 2007), this is the reason the irrigation team used participatory tools. These participatory tools gave the irrigation farmers opportunity to learn and analyse their situation within the schemes.



Figure 2.3: ARD-Irrigation Team with Sekhukhune District Management during introductory meeting .

2.3.1 Meeting with the Tribal Authority

A meeting with Masha-Makopole Traditional Authority Council responsible for Strydkraal took place to introduce the ARD-Irrigation team and to seek permission to conduct the study in the village. This is one of the essential stages of Action research as is important to engage all stakeholders and helps ensure full participation and cooperation of the community. The purpose team of the study was explained and the expected output and permission to undertake the study at Strydkraal was granted.

2.3.2 Participatory Rural Appraisal (PRA)

The process of PRA consists of a range of tools, including: Key informant interviews, focus group discussions, direct observation, etc (ICRA, 2011b). In ARD, the problem is observed from different angles, using an interdisciplinary team approach. The team together with the Sekhukhune district management identified extension officers relevant for the study. Farmers that were to be engaged in the study at different levels i.e. Umbrella body, executive committees and ordinary farmers were also identified by the irrigation team and the extension officers.

Key Informant Interviews

Key informants representing various stakeholders were interviewed for their perspectives of the SP model, issues around that, and to identify topics for more in-depth research. A key informant is any individual who has relevant information and a deep insight about the issue/topic and is willing to be interviewed (ICRA, 2011c). Data was collected from the LDA Agribusiness Unit, LDA extension officers and the strategic partners through key informant interviews.

Meeting with the Local Counsellor

The irrigation team had meetings with two councillors to have their views on the SP model and commercialization of the irrigation schemes. The sessions were anticipated at understanding the impact of the irrigation scheme on Local Economic Development.



Figure 2.4: ARD-Irrigation Team meeting with Stydkraal Local Counsellor.



Focus Group Discussions

Focus group discussions were used as they allow more information to be gathered in a reasonable time and differences in opinions can be investigated quickly. It allows groups of people with common interest to share their perceptions about the topic of discussion. Through the discussion, people respond to comments of others and promote dialogue. The historic background of the irrigation scheme, the challenges and opportunities of the SP model were investigated using this tool. A group of farmers (5-10) were selected based on the irrigation scheme institutional arrangements e.g. farmers in the Executive committee of the Umbrella Body were grouped together, and non-committee members were also grouped together.



Figure 2.5: A focus group discusion at Stykraal

Other participatory tools such as the Chapatti, problem tree, and stakeholder analysis and mood barometer were used to ensure full participation of all farmers present.

Problem Tree

In contextualizing the problem, the Problem tree method was used. The problem tree was drawn on a 2x2 m board and it was indicated that the trunk represents the core problem while the roots and the canopy represents the causes and the effects respectively. Farmers were given the opportunity to express their views based on the components of the problem tree. The farmers were keen to express themselves using the method.

Chapatti Diagram

To understand the roles played by various stakeholders in the Strategic Partnership Model, the Chapatti diagram was used by irrigation farmers on the ground to indicate their experiences and perspectives. The diagram was also used to investigate how the profit shared by farmers was used and to assess their understanding of how the profit was shared between the SP and the farmers.



Figure 2.6: Farmers dividing Capatti based on the roles of various stakeholders.

Stakeholder Analysis

The Stakeholder Influence and Important Matrix was used to assess the level of influence and importance of various stakeholder involved in the SP Model. The linkages among the different stakeholders was analysed through a Stakeholder Mapping Diagram. It was important to identify key stakeholders in the model & the tool was helpful in achieving this outcome.



Figure 2.7: Stakeholder analysis during a meeting with the Strydkraal Executive committee.



Mood Barometer

Farmers expressed how they feel about the SP Model through the mood barometer. This mood barometer was drawn on a paper with a board used as a division between the farmers and the mood barometer paper. This was used to prevent other farmers from seeing each other's mood. Each time a farmers places a stone on the mood; it was removed and placed in a container until everyone indicated his/her mood. The stones for each mood were then counted to indicate the overall mood. The process was independent and farmers expressed themselves on how the model was implemented, farmers' selection criteria and the overall management of the scheme.

3. RESULTS AND ANALYSIS

INTRODUCTION

The data collected was organised and analysed in order to answer the research questions and achieve the purpose of carrying out this study. The Chapatti diagram was used as a tool to identify stakeholders and their roles and responsibilities within the irrigation schemes. The problem tree approach was used to identify the core problem, its causes and effects from the perspective of the farmers. The factors affecting the sustainability of irrigation schemes are also analysed in this chapter.

3.1 LDA STRATEGIC PARTNERSHIP MODEL

The strategic partnership model is based on a tripartite alliance between the farmers on each scheme as producers, LDA as the facilitator and strategic private sector partner as an investor (LDA, 2002). Figure 3.1 illustrates the relationship and responsibilities between the three main parties to the strategic partnership model. Based on the model developed by LDA (refer to figure 3.1) farmers were to be empowered through institutional structure building, capacity building, and aftercare services among others. The appointed Strategic partner (Mr Arthur Creighton of Temong (Pty) (Ltd), is expected to secure market, finance production and offer technical advice to the irrigation farmers while LDA's role is create a framework within which SP operates through policy & principles, operating rules and provision of infrastructure.





Source: LDA, A Business Plan for the Revitalisation of Smallholder Irrigation Schemes in Limpopo Province, 2002

3.1.1 The Basis of the Model: Key informant interviews and focus group discussions

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The study established that, after the revitalization of the irrigation infrastructure, there were no farming activities taking place within the irrigation schemes due to farmers not having the necessary inputs and machinery as well as skills such as marketing to operate on a commercial scale. According to LDA (2005) a model which would require less support from the government was seen as a more sustainable development alternative. The LDA then introduced the strategic partnership model so as to operationalize the irrigation schemes with the objective of commercialization. The model required the farmers to bring land equipped with irrigation infrastructure while the SP was required to bring all the necessary machinery and the production inputs in the joint venture.

3.1.2 The Modalities of the SP Model: Key informant interviews and focus group discussions

The LDA organized consultative meetings with farmers to explain how the strategic partnership model works. In addition, an exposure visit was undertaken to Makuleke irrigation scheme, in the Vhembe district of Limpopo province where the model was already operational. The purpose of this exposure visit was to enable farmers to practically see how the model is being managed by the same SP. The farmers were shown maize cultivation under the Floppy irrigation system. Farmers at Makuleke irrigation scheme confirmed that the SP brought the machinery and production inputs such as fertilizers and seeds, but could not go deeper into the challenges and opportunities of the SP model as it was their first crop in the partnership. Based on the experiences gained and lessons learned from the exposure visit, Tswelopele farmers became interested in the model as it seemingly did not pose any production risks.

Introduction and appointment of SP

At the inception stage, the LDA identified potential strategic partners namely MMI, MGK, Plant and Plough, Temong and Fanie Botha to present their business proposals to the farmers and LDA. It was found that all other strategic partners except Temong (Pty) (Ltd) could not bring capital without accessing loans. The farmers and LDA agreed on Temong (Pty) (Ltd) as the partner as they were prepared to use own finance and also had experience in running the model. This SP was thereby appointed and brought all the necessary inputs and machinery such as: skills, capital, seeds, tractors, implements and markets etc. The farmers then agreed to work with the strategic partner. Temong (Pty) (Ltd) then drafted the contract and presented it to the LDA for amendments. After amendments on the contract both the farmers and the strategic partner signed the contract to legalize their agreement and partnership.

Implementation of the SP model

The strategic partner introduced crops such as potatoes, seed maize & commercial maize to the farmers. The crop choice was based on the SP production expertise and management knowledge and experience. The SP also had secured market contracts for the chosen crops. In line with the contract, the SP brought skilled labour, machinery, secured a market and capital. To start the farming operations, he consulted farmers whenever there was need for labour at the irrigation schemes. The farmers organized all the required labour such as security and casual labour for cultural practices. Beneficiaries and other members of the community were identified by the committee as casual labour within the irrigation schemes. The farmers' committee decided on the payment or working rate



for the hired/casual labour. From farmers' perspective at both irrigation schemes, the roles of farmers in the operations at the schemes were not well understood and various stakeholders indicated that business planning was not adequately done with the farmers. LDA extension officers' support to the irrigation schemes was not sufficient as the officers did not visit or monitor irrigation schemes on regular basis and could spend a month without visiting the scheme as was expected by the farmers.

Profit sharing

After every harvest the strategic partner deducted the expenditure and the net profit was shared between the farmers and the strategic partner as it was indicated in the contract. At Tswelopele irrigation scheme the profit sharing was as follows: from the first harvest it was agreed that the farmers and the strategic partner will take 50% each. With the second harvest the farmers got 55% and the strategic partner received 45% of the net profit. In the third harvest the distribution was supposed to be 65% for the farmers and 35% for the strategic partner but the strategic partner pulled out owing to some of the farmers suspecting that the SP (Arthur Creighton) was cheating them and not giving the right financial projections. Some beneficiaries of the scheme were eager to know the price at which farm produce were sold. A marketing committee that was established by farmers then started to investigate the issue without requesting permission from the executive committee of the irrigation scheme. This resulted in conflicts among the farmers were not keeping record of the farm inputs and produce. During the second harvest, LDA advised the farmers to save 85% of the profit and share 15% amongst themselves but the farmers decided to do the opposite due to other circumstances such as lack of money. The gross margins for Tswelopele irrigation scheme illustrated in Table 3.1 shows how much the cooperative was earning and how much was distributed to the individual farmers for the 2009/2010 farming season.

At Strydkraal profit sharing was as follows during the first harvest: farmers and strategic partner received 50% each of the profit share. From the 50% that the farmers received, farmers then saved 20% and divided the remaining (80%) equally amongst themselves; by dividing the total amount of money by the total number of the farmers.

The above indicate that there was not enough dialogue between the key stakeholders, particularly the farmers, the LDA and SP prior to and during the implementation process. This is shown by the farmers' limited understanding of model operation; for starters they were not fully involved in daily operations and management of the farm. That is, farmers did not understand their role within the partnership. This also resulted in a lack of trust between the farmers and the SP when it came to profit sharing.

		CROP	
	POTATOES	BEANS	MAIZE
Area (ha)	202	174	60
Time period	Feb-Sept 2009	Feb-July 2009	Dec 2009-March 2010
Gross margin (total R)	1 973 980	520670	157418
Beneficiaries margin (50%)	986 990	260335	78709
Margin per beneficiary (R; 75 beneficiaries)	1 3159	3471	1049
Margin per beneficiary per month (R)	1 097	289	87

Table 3.1 Income Estimates for Tswelopele Irrigation Scheme Beneficiaries

Source: Maepa, 2011

From the profit sharing, farmers were expected to save a certain percentage of the profit share for later investments in the business through purchase of own machinery. As an exit strategy, it was also envisaged that with the skills learnt farmers could start operating on their own when the strategic partner leaves or the contract expires. Farmers wanted to have a piece of land where they could start practicing farming on their own while being mentored by the SP. It surfaced in the study that, this idea of the farmers did not materialize in all irrigation schemes as it was not supported by the Extension Officers in charge therefore farmers decided not to take it further.

Coordination of the SP model implementation process

According to the Memorandum of Agreement entered into between the farmers and the SP, LDA is also involved in the management of the partnership at board level to ensure that the objectives of the contract are achieved. The board consists of six members with two representatives from the LDA, Irrigation Scheme and Temong.



3.2 STAKEHOLDER ANALYSIS

A stakeholder is a person, group or organisation that has direct or indirect stake in an organisation; it can affect and be affected by the organisation's action, objective and policies. The stakeholder analysis conducted in this study entailed the identification of relevant stakeholders considering; their functions towards the research problem. In this case, the study identified stakeholders that play an important role in irrigation schemes sustainability.

3.2.1 Stakeholder Identification

The stakeholder identification matrix was used to bring clarity and transparency to the process of identifying the stakeholders in the problem identification. It was also used because it makes a first assessment of the relative importance of the different stakeholders for the functioning of the irrigation schemes. Farmers identified stakeholders operating in the schemes as well as those concerned with the schemes sustainability as indicated below.

STAKEHOLDER	KEY STAKEHOLDER AT STRYDKRAAL	WHY(OR WHY NOT	KEY STAKEHOLDER TSWELOPELE	WHY(OR WHY NOT)
Irrigation farmers	$\checkmark\checkmark\checkmark$	Project beneficiaries	$\checkmark\checkmark\checkmark$	Project beneficiaries
Strategic Partner	$\checkmark\checkmark$	Responsible for the production and marketing	$\checkmark\checkmark$	Responsible for the production and marketing
Limpopo Department of Agriculture	$\checkmark\checkmark$	Provide infrastructure and technical support	$\checkmark\checkmark$	Provide infrastructure and technical support
Department of Water Affairs	\checkmark	Water user management	\checkmark	Water user management
Eskom	\checkmark	Provision and maintenance of electricity	\checkmark	Provision and maintenance of electricity
Traditional Authority	\checkmark	Custodians of the land	Х	The land belongs to the state.
Department of Rural Development and Land Reform	Х		\checkmark	Land user management

Table 3.2: Stakeholder Identification Matrix for Tswelopele and Strydkraal Irrigation Scheme

As can be seen from the matrix above, the irrigation farmers, the strategic partner and the LDA were identified as the most important stakeholders. The farmers are the most important stakeholder because their livelihoods are affected directly by the irrigation schemes and the LDA would not have installed an irrigation system without them. The SP's responsible towards financing the production process, management and marketing renders them an important stakeholder without his active involvement farming in the schemes could grind to a halt.

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The involvement of the LDA is the foundation of the partnership as there would not be any partnership without the irrigation infrastructure. A number of other stakeholders were identified as key in their respective capacities. Amongst which is; Eskom for continues functioning of the water pumps, Department of Water Affairs (DWA) to ensure sustainable use of the water resources, Traditional Authority for civil governance and Department of Rural Development and Land Reform with the responsibility of facilitating land tenure arrangements and allocation of land.

3.2.2 Stakeholder Roles and Involvement

Perceptions were gathered from the various stakeholders to assess their satisfaction with how each stakeholder performed their role in the partnership. This is illustrated in Table 3.3. The Strategic partner was seen as performing the functions of input supply and marketing very well. On the role of technical advice, the strategic partner was viewed as being only partially involved with some stakeholders, not satisfied with his performance of this function. This shows that the performance of the skills transfer process by the SP has not been fully implemented and a lot still needs to be done.

The LDA performed the function of providing infrastructure very well and to the satisfaction of all stakeholders but was also seen as only partially involved when it came to providing technical advice. Putting more emphasis on the improvement of physical irrigation infrastructure is not sufficient (Neeraj et al., 1998 in Denison and Manona, 2007). Best practice shows that major investment in human capital development is critical. The irrigation farmers only played the role of looking after the irrigation infrastructure and their performance of this role was considered very poor by other stakeholders due to the level of vandalism on the irrigation infrastructure. The DWA performs its role of provision of water services and water user management very well and all stakeholders are satisfied. The local municipalities on the other hand, were seen as not playing any role in both irrigation schemes by the stakeholders.

The traditional authority was seen to be performing their role very well in the Strydkraal irrigation scheme and not the Tswelopele irrigation scheme since the Tswelopele irrigation scheme is on state land and does not fall under the jurisdiction of the traditional authority.

The table below indicates the stakeholder perspectives of the roles of each.



Table 3.3: Stakeholder Role Matrix Indicating Current Stakeholder Level of Involvement According to theFarmers

			ROLES		
STAKEHOLDER	Inputs supply	Technical Advise	Marketing	Infrastructure	Water Services
Strategic Partner	Very Good	Moderate	Very Good	_	_
LDA	-	Moderate	_	Very Good	Poor
Irrigation Farmers	_	_	_	Very poor	_
Local Municipality	_	_	_	_	_
Traditional Authority	Very Good (Strydkraal only)	_	_	_	_
DWA	_	_	_	_	Very Good
Kev:					

•	
Very Good	Fully involved with all users satisfied with performance roles
Good	Fully involved but not all users are satisfied with performance roles
Moderate	Partly involved and in a satisfactory way
Poor	Partly involved but not all users are satisfied
Very Poor	User takes up the role but performs poorly
-	User is not involved

3.2.3 Perceptions of Stakeholders on the Strategic Partnership Model

Partnership is a voluntary collaborative agreement between two or more parties in which all participants agree to work together to achieve a common purpose or undertake a specific task and to share risks, responsibilities, resources, competencies and benefits. A strategic partnership is a formal alliance between two commercial enterprises, usually formalized by one or more business contracts but falls short of forming a legal partnership or, agency, or corporate affiliate relationship.

The perceptions were gathered from the various stakeholders on the effectiveness and efficiency of the strategic partnership model. Stakeholder perception matrix (Table 3.4) was used to assist in discovering the range in perceptions of different stakeholders on strategic partnership model and also to identify conflicting and shared perceptions. According to the farmers, the SP model encourages dependency as the SP is providing all farm implements, production inputs and skills and determines that they work as a co-operative. The farmers' individual plots were consolidated into one large unit and according to farmers this arrangement meant a loss of ownership and power and resulted in less commitment from the farmers. Various stakeholders indicated that risk is spread (and also minimal) through this model as the operational cost is not charged with interest and that should the production be low, they are not responsible for the loss. According to LDA officials and SP the model is commercially orientated, and the SP is highly at risk as the SP is expected to incur all costs experienced should

there be a loss. The SP model is skewed to the SP side as machinery and production inputs are expected from the SP. Understandably, the SP as a business man is more interested in making profit and rarely involve the farmers in the operations of the scheme especially at TIS. Seemingly, the partnership also put SP in a position where he was overpowers (and sometimes overlooks) farmers when it came decision making. For example, because he had already secured a market contract with companies such as Simba, McCain, Willard's etc. farmers could not decide on the crop. Machinery, technical crop management and production inputs were also expected from the SP hence when the partnership ended farmers could not run the scheme themselves.

STAKEHOLDERS	PERCEPTIONS ON THE STRATEGIC PARTNERSHIP MODEL
Irrigation farmers	Encourages dependency
	Discourages sense of ownership
	Does not promote commitment
	Requires farmers to operate as co-ops which is not mostly preferred by farmers
	Low risk for farmers
	It is disempowering
LDA officials	Commercially orientated
	Rely mostly on the external person
	Does not encourage ownership
	Promote co-op formation though is not well understood by farmers
	Low risk for farmers
	Give power to people with capital
	Model is not balanced; in favour of farmers
Strategic partners	Low risk for farmers
	Promote only high capitalised people
	Business orientated
	SP are more at risk
	It is not balanced; skewed to the side of SP
Local municipality officials	It is not empowering the community

Table 3.4: Stakeholder Perception Matrix on the Strategic Partnership Model

3.2.4 Importance and Influence of Stakeholders

The identified stakeholders were then analysed in terms of their influence and importance using the stakeholder influence and importance matrix (Figure 3.2), knowing the power that stakeholders have to influence a project or development activity helps identify relative risks posed by these stakeholders and potential coalitions. Stakeholders with much power and influence can easily divert project resources from important intended



beneficiaries with little power or influence. Similarly, knowing the importance of a particular stakeholder group as a beneficiary helps ensure that the voice of these actors is heard.

As depicted in Figure 3.2, LDA, strategic partner, DWA, Eskom and Land reform are the most important and influential stakeholders as they have power over the irrigation schemes to control what decision are made, facilitate its implementation or exert the influence that affects the irrigation schemes. If any of these stakeholders who are important and influential can dictate the direction the partnership is going to take. This is evidenced by the collapse of the Tswelopele irrigation scheme immediately after the strategic partner pulled out.

The farmers on the other hand, are not very influential because they do not have power in the partnership even though they are very important for the functioning of the irrigation schemes. For example in Tswelopele the farmers do not own the land but are leasing the state land, implying restriction in terms of developing the land. Also the farmers are like ordinary labour in their own irrigation schemes, not being involved in making decisions with only three out of the 71 farmers partially involved in the technical running of the scheme.



Figure 3.2: Stakeholder Influence and Importance Matrix

3.3 FACTORS AFFECTING THE SUSTAINABILTIY OF IRRIGATION SCHEMES

3.3.1 Challenges for Tswelopele Irrigation Scheme

Internal Conflicts and lack of trust

Internal conflicts and lack of trust among the members of the irrigation scheme were cited as a challenge towards the optimal functioning of the irrigation schemes. There was distrust among the members of the executive committee as well as the farmers resulting in parallel structures emerging. For example, there was a need to appoint directors of this joint venture and farmers decided to nominate farmers who were not part of the executive committee and that caused conflicts between the executive committee and the farmers. It thus became difficult for the executive committee to manage the scheme as result of the afore-mentioned conflicts.

From the analysis of this study, some of the reasons for this mistrust could have been power struggles within the scheme which may have been influenced by political background or affiliation of individual scheme members. Another reason might be the way the plots were allocated left some farmers dissatisfied with the process. Some of the farmers felt the committee was stifling their desire to have title deeds to the land in Tswelopele. Some of the farmers were unhappy about the idea of working cooperatively because it meant they could lose the autonomy they loved and enjoyed.

Lack of trust between the farmers and the SP

As earlier mentioned, the apparent lack of trust between the farmers and the strategic partner arose mainly around the issue of the produce sales. The farmers felt that the SP was not transparent when it came to costs of production, quantities sold and prices obtained. Based on this a marketing sub-committee was established by the farmers to look into the above-mentioned issues and dividend distribution. The marketing committee carried out an investigation of these issues, however, this it did without discussing the issue with the executive committee of the scheme and the SP. As a result of this investigation and accusations, the strategic partner decided to pull out of the partnership.

Commitment from farmers

The commitment to farming by some of the farmers was questionable as they did not participate in the activities as agreed in the partnership but were only interested in the sharing of dividends. It was also learnt that the executive committee were not taking part in meetings that handle daily operations of the scheme.

Lack of ownership

Farmers did not show a sense of ownership towards the scheme but viewed it as a project of the LDA and strategic partner, indicative of lack of understanding of the cooperative model and how a cooperatives should function and hence the affairs of the schemes were not managed properly. Farmers also lacked skills particularly relating to commercial production of the crops under the scheme as well as marketing and contract management.



Lack of communication

The lack of open communication amongst the tripartite alliance partners resulted in unresolved issues building up; such as the issue of mistrust surrounding the sales of produce from the scheme.

Irrigation system

The set-up of the irrigation system itself posed challenges since it had limited crop choice; limiting farmers' ability as regards choice of crops. The system suited crops chosen by the SP because of his initial market contract arrangements. This created dependency as the farmers could not continue on their own because they could not finance production. Specifically, the production costs for potatoes are beyond farmers' means. It was understood that the SP had not given farmers clear access to the markets. Such tendency may have contributed to the mistrust, with farmers suspecting that he did not want them to know the exact prices at the market as he might have been inflating some costs or understating prices received.

Inadequate Leadership and coordination

Inadequate leadership and coordination of activities by the LDA was also seen as a challenge. The LDA (2005) acknowledges that without adequate support irrigation farming can be a challenge for newer farmers and that it lacked the capacity and resources to provide technical support to the revitalized irrigation schemes.

3.3.2 Challenges at Strydkraal Irrigation Scheme

• Non-compliance of the SP to the contract

According to the farmers some of the responsibilities of the strategic partner specified in the contract were not being honoured. For example the SP was supposed to provide continuous training and transfer skills but they argued that there was no structured program in place and the SP acknowledges. They further asserted that they have no direct access to markets and input procurement as the farmers are not exposed to this.

3.3.3 Opportunities for the Irrigation Schemes

The model gave the farmers an opportunity to get into commercial farming as a cooperative at almost no cost since the SP carried the cost of machinery and capital, skills, markets and the personal experience of running a farm as a business.

The model also posed no risk associated with production and marketing of the produce to the farmers since, rather shedding this on the SP.

The irrigation scheme provided the adjacent community with the opportunity to collect the remains left after harvesting.

There was an opportunity for skills transfer on operational and technical matters to the farmers by the SP. Training on fertilizer, pesticides and herbicides application are some of the skills that farmers could have benefitted from.

The model offers farmers access to markets for their produce through the strategic partner who has secured contracts with large companies.

3.3.4 Success Factors for Strydkraal

The institutional arrangements for the Strydkraal Irrigation scheme are a contributing factor since each centre pivot has a committee of which all the chairpersons form an umbrella body. The leadership of the cooperative is active and committed to see the partnership succeed. Institutional setting and involvement of local leadership is vital for successful partnerships (Tenywa et al., 2011). This improves issues of governance and accountability in the scheme. For example the leadership was proactive in taking a leading role in record keeping such as stock taking for inputs delivered and used constantly. They have also been actively involved in the security particularly at harvest time as well as the keeping of detailed records on the produce taken to market. This involvement ensures transparency and builds trust within the partnership model. Trust is important for the success and sustainability of the partnership.

The commitment and involvement of the Traditional Authority especially the Chief contributes to the success of the scheme. He is also a farmer in the scheme.



4. RECOMMENDATIONS AND CONCLUSIONS

4.1 RECOMMENDATIONS

Collaboration and empowerment

Considering that farmers are the most important stakeholder in the strategic partnerships but generally acknowledged they played minimal roles in the decision to install infrastructure and functioning of the schemes, suggests a need for change. It is recommended that there be special initiatives to help become more actively involved in the running of the irrigation schemes to protect their interest.

• Farmer Capacity building

One of the reasons for the LDA decided on the strategic partnership model was farmers lacking skills to run the schemes commercially. To ensure that this objective is met, there is a need to institute capacity building programme on the farming operations, and such programme should be tailor-made alongside the business model.

Social facilitation

To mitigate the skewed focus on the provision of irrigation infrastructure and the implementation of the strategic partnership amidst inadequate consultation and capacity building for all the stakeholders, social facilitation is proposed. Interventions need to address all aspects of irrigation scheme operation and farm system planning, and avoid single-sector interventions such as infrastructure upgrading, mechanisation or institutional development alone (Denison and Manona, 2007). Farmers therefore should be capacitated in matters relating to contracts and agreements they enter into, as well as the ability to articulate their positions in the partnership.

There should generally be training and mentoring on running of cooperatives, and overall management including financial management and marketing to circumvent mistrust.

Key stakeholders groups such as the Traditional Authority and local municipality, should carefully monitor such developments in their communities, as their interests are likely to be affected by development intervention to ensure to achievements of irrigation schemes objectives.

The cooperative framework needs to be modified in order to offer incentives to members that work hard. The current partnership model treats all farmers the same; regardless of the varying effort and thus encourages free riders. An improved model that has working as a co-operative but aligns the allocation of plots with efforts and commitment. In this model, the benefit of being member is limited to collective procurement of inputs and organized marketing, thus encouraging farmers to commit more have sense of ownership.

Farmer selection criteria

The criteria for selection of farmers to be in the scheme and grouping them into a cooperative should be reviewed. The vast differences in socio-economic status and levels of education amongst farmers can be a source of conflict and affect the functioning of the scheme. With more informed beneficiary selection criteria, sustainability can be enhanced. A good selection criterion for participation in the schemes should take cognizance of the similarities amongst farmers, i.e. typology. This may take cognizance of youth and gender in the tailoring enterprises and crops to be grown.

M & E system

It is recommended that rather a mentorship model be introduced as an alternative model to the current SP model. A mentorship model, entails having each farmer allocated a plot; with LDA appointing extension officers tasking with close supervision and mentoring farmers. Should farmers prefer it, a mentor of their choice can be appointed by farmers at their own cost. In this model, the role of the mentor is guiding the operations in the schemes advising farmers on technical aspects such as production. The LDA's Agribusiness Unit can then help facilitate establishment of market linkages and this could take a form of facilitating the processes of securing a markets and machinery (e.g. tractors and implements). Ideally this model should be implemented with a starter package of production inputs.

Within the mentorship, a lead farmer/facilitator with skills to mobilize towards social cohesion, on market opportunity identification and agricultural production skills could help to make the schemes more sustainable.

Furthermore, a business-oriented culture could help turn things around. Maepa, (2011) recommends a management agency type of model whereby the knowledgeable individuals are paid according to their performance, productivity and the income generated. He further recommends that farmers should be effectively involved in the development of such a model before its implementation rather than to impose the model on them.

4.2 AREAS FOR FURTHER STUDY

It is recommended that the following studies explore aspects that this study could not cover. This includes:

- o A study on institutional arrangements of the co-operatives and their effect on sustainability of irrigation schemes.
- A study on the impact of strategic partnership model on the sustainability of irrigation schemes and its influences in commercialization of rural irrigation schemes and emerging farmers' empowerment.
- A study on socio-economic and gender factors affecting the livelihoods of irrigation farmers in the Sekhukhune district and their implication on the schemes sustainability.
- o Exploring various business models that can best be implemented in the irrigation schemes to promote commercialization and sustainable livelihoods.



- o An in-depth study on better decision-making models by farmers in irrigation schemes, especially where farmers function as co-operatives.
- o A study on the role of social capital in irrigation schemes designed for poverty alleviation purposes.

4.3 CONCLUSION

This study sought to identify challenges of the strategic partnership model for irrigation schemes in Sekhukhune district, to identify and recommend an alternative model and to identify areas for further research. To this effect the study attempted to bring out the challenges for the Tswelopele and Strydkraal irrigation schemes. This was informed by the logic that, it is important to understand all the factors that affect the well-functioning of the irrigation schemes and make recommendations towards suitable, financially viable and sustainable models for irrigation schemes in Sekhukhune district. The study further identified issues that could not be pursued due to time constraints. These have been stated as areas for further research.

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APPENDIX 1: RESEARCH PLAN

ies?	Expected outcomes	Understanding of stakeholders' involvement.
of the irrigation schem	Methods	Stakeholder analysis Semi-structured interviews Secondary data
d towards sustainability	Sources	Famers Key informant Extension officers
ent model contributed	Information needed	What is the percentage of stake of various stakeholders
TION: How has the curr	Potential answers	Farmers (irrigation) LDA Strategic partner Traditional Leadership Water User Association(WUS) Local government leadership ARC Higher Learning Institutions
RAL RESEARCH QUES	Tertiary Research questions	Who are the various stakeholders?
CENT	Secondary Research Questions	What are the components of the strategic partnership model?

nes?	Expected outcomes	Roles of stakeholders identified	Clarity on the background of the model.
/ of the irrigation schen	Methods	Stakeholder analysis Semi-structured interviews Secondary data	Semi structured interviews Secondary data
towards sustainability	Sources	Farmers Key informant Extension officers Strategic partner	Secondary data/ literature Key informants
rent model contributec	Information needed	Activities implemented by different stakeholders	Guiding principles for choosing the model
TION: How has the curr	Potential answers	Provision of extension support- LDA and ARC Mentoring- strategic partner and LDA Financing-strategic partner and LDA Land tenure- traditional leadership Water management- water associations Research and development- ARC, LDA and HLI	Commercialization Skills development Provision of operational resources
RAL RESEARCH QUES	Tertiary Research questions	What are the roles of various stakeholders?	What is the basis of the model?
CENT	Secondary Research Questions		



CENI	KAL KESEAKCH QUES	IION: How has the curr	rent model contributed	towards sustainability	of the irrigation schem	ies:
Secondary Research Questions	Tertiary Research questions	Potential answers	Information needed	Sources	Methods	Expected outcomes
Mhich stakeholders are most affected by the dis/functionality of the irrigation schemes?	How is the working relationship between different stakeholders	Challenges/ constraints between stakeholders Helpful experiences	Working contract	Farmers Strategic partner LDA	Structured interviews Focus group discussions Problem tree Stakeholder analysis	Causes of the constraints unraveled
	How has the dis/ functionality of the irrigation schemes affected the strategic partnership?	Loss of trust among stakeholders. Loss of jobs Loss of income	Economic significance of the scheme to the livelihood	Farmers Strategic partner LDA	Workshop(livelihood analysis)	The importance of operationalising the schemes
	What is the impact of the dis/ functionality (irrigation schemes) according to gender?	Female farmers are more vulnerable	Gender roles and involvement	Farmers	Workshop(livelihood analysis	Knowledge of mostly affected

nes?	Expected outcomes	Clear picture of the initiation process and how it was operationalized	Setbacks/ hinderances identified Proposals for the new models	Causes of the disfunctioning irrigation scheme determined/ established Proposed new model	
of the irrigation schen	Methods	Structured interview Focus group discussion Stakeholders workshop	Stakeholder workshop	Semi- structured interview Structured interviews Focus group [discussion]	
towards sustainability	Sources	LDA Strategic partnership farmers secondary data Traditional leadership	Farmers strategic partner LDA Traditional leadership	LDA Strategic partner famers Local government	
ent model contributed	Information needed	Before, during and after	Opinions and views on current strategic partnership model	Information on profit sharing Stakeholders interest	
FION : How has the curr	Potential answers	LDA facilitated the process Insufficient stakeholder consultation Poor follow-up through from LDA	Beneficial to the strategic partner only The community was robbed Need to restart the project	Insufficient stakeholder consultation Lack of transparency from farmers, LDA and strategic partner Disparities in stakeholder interest Insufficient farm inputs	
RAL RESEARCH QUES	Tertiary Research questions	How was the strategic partnership model operationalized?	What are stakeholders' perceptions on the current strategic partnership model?	What are the determinants of the dis/functionality of irrigation schemes?	
CENT	Secondary Research Questions	What are the factors contributing to the Dis/functionality of irrigation schemes?			

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APPENDIX 2: WORK PLAN FOR THE FIELD STUDY





TASK	METHODS	ву whom	WITH WHOM	DATE	PLACE	Ουτρυτ
Meeting with strydkraal farmers	Participatory Rural Appraisal (PRA), focus group interview, semi-structure interviews and participant observation	Irrigation team and the extension officer	Strydkraal farmers	13/01/2012	Strydkraal	Views (both positives and negatives) of farmers on the model and history of the irrigation scheme.
Reflection on farmers meeting	Team discussion	Irrigation team		13/01/2012	Tompi Seleka	Consolidating findings.
Data capturing	Typing	Irrigation team		14/01/2012	Tompi Seleka	Compiled data
Interview with the Tswelopele extension officer	Semi-structured interview	Irrigation Team	Extension officer	16/01/2012	Tswelopele	Group dynamics, institutional arrangements and the operationalization of the model. Preparation of the meeting with farmers and the tribal authority. identification of key informant
Meeting with Tswelopele farmers	Participatory Rural Appraisal (PRA), focus group interview, semi-structure interview and participant observation	Irrigation team and the extension officer	Tswelopele farmers	17/01/2012	Tswelopele	Views (both positive and negative) of farmers on the model and history of the irrigation scheme.
Reflection on farmers meeting	Team discussion	Irrigation team		17/01/2012	Tswelopele	Compiled data
Data capturing and preparation of the preliminary findings presentation	Typing	Irrigation team	Extension officer	17/01/2012	Tswelopele	Draft of the preliminary findings
Presentation of preliminary findings	presentation	Irrigation team	Various stakeholder	18/01/2012	Tswelopele	Views of the stakeholders on the preliminary findings



TASK	METHODS	BY WHOM	WITH WHOM	DATE	PLACE	OUTPUT
Reflection on the presentation	Team discussion	Irrigation team		18/01/2012	Tompi seleka	Adjusting the findings
Meeting with the strategic partner	Semi-structured interview/ key informant interviews	Irrigation team	Arthur Creighton	19/01/2012	Strydkraal	How he got involved in the model and his views.
Preparation of the preliminary findings presentation	Team discussion	Irrigation team	Extension officer	19/01/2012	Tompi Seleka	Edited draft of preliminary findings
Presentation of the preliminary findings	presentation	Irrigation team	Various stakeholder	20/01/2012	Strydkraal	Views of the stakeholders on the preliminary reports

APPENDIX 3: TEAM CONTRACT

STRATEGIC PARTNERSHIPS IN THE IRRIGATION SCHEMES TEAM CONTRACT

We, Adolph Malatji, Jethro Nowata, Manoshi Mothapo, Tichaona Pfumayaramba and Mmbengeni Makhuvha agree with the following statements made for the team work.

1. RULES OF OPERATION FOR THE TEAM

Compliance with rules and procedures

- We will follow agreed team rules and procedures.
- If any one of us contravenes these rules, we all meet and discuss the reasons and best course of action.

Team work

- We will collectively decide on our team agenda.
- We will contribute to the team effort to the best of our capabilities and skills and we will support each other during the course of the ARD professional capacity development programme.

Deadlines

- Deadlines on assignments will be adhered to by all team members.
- In case of unforeseen circumstances to meet task deadline, it must be reported immediately to the team facilitator.
- Failure to meet deadlines will be collectively discussed by team members and corrective measures taken.

Review of team work

We will reflect on daily and weekly basis and adjust our plan accordingly.

Equipment and materials

- We will take equal responsibility of our equipment and materials.
- We will sign for resources handed out to us by the Material manager.

2. RULES OF PERSONAL CONDUCT

Dealing with criticism, weak points

- We will give and receive criticism in a constructive and respective manner.
- We will acknowledge each other's weak points.



• We will give each individual opportunity to raise their view points.

Differences in personal behaviour

- Views and opinions of everyone must be respected.
- We will be open-minded and honest about personality traits.
- We will address emerging issues immediately and consider the consensus as final.

3. CONFLICT MANAGEMENT

- We acknowledge that naturally conflicts may arise among ourselves and with people whom the team may interact with during the course of the study. In any conflict, the team will strive for a win-win situation or a compromise rather than an outright victory.
- We will build trust among ourselves by ensuring free flow of information.

Our conflict resolution steps will be the following:

- If we have an instrumental conflict (about objectives, means, procedures and structures) and cannot find a solution by solving the problem, we will ask an *arbiter* to analyse the conflict and to tell us what s/he sees as the best solution. The arbiter will be a team member who is not part of the dispute.
- 2. If we have conflicts of interest (about the distribution of scarce resources like money, time, manpower and space, and about factors relevant to the distribution of resources, such as authority, competence and expertise) and cannot find a **compromise** by **negotiation**, we will ask a *mediator* to help us reach agreements.
- 3. If we have personal conflicts (about matters of identity and self-image) and/or relational conflicts (about divided loyalty, breach of trust, betrayal of friendship or lack of acceptance) and cannot solve these conflicts by a **process of open communication**, we will ask a *facilitator* to guide us.

4. DECISION MAKING PROCEDURE

To come up with acceptable decisions in an effective way we are willing to understand each other's point of view and willing to compromise.

Our decision making techniques will be the following:

- 1. We will **first clarify** which options are the bases for our decision and who favours which of the option(s) on a pin-board.
- 2. Each of us will have the opportunity to express our views on any issue **before** we take a decision.
- 3. In case we all favour the same option, we take the **decision immediately**.

- 4. In case the decision concerns a very important matter or in case we have different options we will **then identify** the **advantages** and **disadvantages** of the different options and the **criteria** which we will apply to assess our options.
- 5. If on the basis of this assessment we **still cannot reach consensus**, we will look for a **reasonable compromise**, which combine those options, which are favoured by different team members and check whether all of us can identify with such a compromise. If we **fail to find a reasonable compromise**, we will **take a decision by majority vote**.
- 6. All our major decisions will be recorded in the computer.

5. ROLES AND RESPONSIBILITIES

NAME	ASSISTED BY	FUNCTION	DESCRIPTION	
Linde	All members	Facilitation	Initiating actions, stimulating information exchange (seeking opinions and information, brainstorming), clarifying, summarising, decision making, planning and co-ordinating, monitoring progress, etc.	
All members		Disciplinary contribution to the joint task	Making contributions in her/his specific field. Ensuring full use is made of all the learning resources provided in the Knowledge Acquisition Phase in Tompi Seleka	
Jethro	All members	Keeping the team together	Reducing tension, giving support, solidarity, comfort, mediating in conflicts, hearing complaints, etc.	
Facilitator (at debriefing sessions)		Satisfying individual needs	Making sure that every member learns from the experience, identifying strong points of members and stimulating their contributions on these points.	
Linde		Logistics	Arranging and managing materials and equipment etc.	
Manoshi		Secondary data managementManaging the library of available secondary information, filing documents that the team produces minutes, keeping logbook/activity schedule up to date, recording methodological steps and decisions, documenting progress, etc.MinutesMinutes keeping logbook/activity schedule up to date, recording methodological steps and decisions, documenting progress, etc.		
Manoshi		Record keeping	Sord Pring Minutes, keeping logbook/activity schedule up to date, recording methodological steps and decisions, documenting progress, etc.	
Jethro		File management	documenting progress, etc. Keeping a record of all the computer files (text, data and graphics) produced by the team, their location on computers and disks (paths), updates, etc. Keep reference lists up-dated throughout.	



NAME	ASSISTED BY	FUNCTION	DESCRIPTION	
Tich	Manoshi	Editing reports	Being responsible for the final form of the reports: message the team wants to convey to their readership, the team's path of thoughts throughout the analysis, the development of the argumentation and logic and order of presentation of the issues.	
Tich		Treasurer	Managing physical needs and financial transfer detail (keeping receipts, collecting money).	
Adolph		Spokes person	See to team needs. Liaise with relevant persons.	

NB. The roles can be changed when need arises through collective team decision.

Note: Rotating roles as needed per operational activity.

Visualizer	
Time keeper	
Scriber	
Presenter	
Facilitator for specific activities	

6. ACCOUNTABILITY

- We will be held collectively responsible for our work and the final output, and we shall contribute towards this work according to our capabilities.
- We will also be held responsible for the roles and functions assigned to each individual member and therefore should help each other to finish the work on time.

We, the undersigned, have read the team contract and agreed to abide by the terms of the contract.

Tompi Seleka, December 09, 2011

NAME	SIGNATURE	NAME	SIGNATURE
Adolph Malatji		Tichaona Pfumayaramba	
Jethro Nowata		Mmbengeni Makhuvha	
Manoshi Mothapo			

APPENDIX 5: INTERVIEW CHECKLIST FOR PROFESIONALS

- 1. Background
- What is the Historical background of the Irrigation schemes?
- Institutional Arrangement
- Current situation
- 2. Stakeholder Involvement:
- Who are the various stakeholders?
- What are the roles of various stakeholders? Who is doing what?
- What is the percentage of stake of various stakeholders?
- 3. LDA Strategic Partnership Model
- What is the basis of the model?
- How was the model introduced?
- How was the SP appointed?
- How was the model implemented? Exit strategy?
- What were the challenges & opportunities of the model?
 - o Follow-up question: Which stakeholders are most affected by the dis/functionality of the irrigation schemes?
 - 0 What are the factors contributing to the Dis/functionality of irrigation schemes?
 - o What are you doing?
 - o According to your opinion, how do other stakeholders view the model?-Farmers, SP
 - What recommendations do you have to improve the situation?



APPENDIX 6: INTERVIEW CHECKLIST FOR FARMERS

- 1. Background
- What is the Historical background of the Irrigation schemes?
- Institutional Arrangement
- Current situation
- 2. Stakeholder Involvement:
- Who are the various stakeholders?
- What are the roles of various stakeholders? Who is doing what?
- What is the percentage of stake of various stakeholders?
- 3. LDA Strategic Partnership Model
- What is the basis of the model? (the reason for introducing the model)
- How was the model introduced?
- How was the SP appointed?
- How was the model implemented? Exit strategy?
- What were the challenges & opportunities of the model?
 - o Follow-up question: Which stakeholders are most affected by the dis/functionality of the irrigation schemes?
 - 0 What are the factors contributing to the Dis/functionality of irrigation schemes?
 - o What are you doing?
 - o According to your opinion, how do other stakeholders view the model?-Farmers, SP
 - o What are the your views on the model
- What was the selection criteria used to formulate the schemes?
- Farmers dividend savings
- What recommendations do you have to improve the situation?

APPENDIX 7: INTERVIEW CHECKLIST FOR STRATEGIC PARTNER

- 1. How did you get involved with the Irrigation Schemes?
- 2. Which irrigation schemes have u worked with?
- 3. How long have you been involved/ working with Irrigation Schemes?
- 4. How were you selected and appointed as the Strategic Partner?
- 5. What is your role as a Strategic Partner?
- 6. What is the role of the Farmers and the LDA?
- 7. What makes Strydkraal to function?
 - o What are the challenges and opportunities?
- 8. What makes Tswelopele not to continue operating?
 - o What are the challenges and opportunities?
- 9. What are your views with regard to the SP model?
- 10. What model would you recommend that will sustain the operation of the irrigation schemes?

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APPENDIX 8: INTERVIEW CHECKLIST FOR COUNCILORS

- 1. How is the contribution of the irrigation schemes to the economy of the area?
- 2. How is the local government involved?
- 3. What are your views on the operational arrangement of the irrigation schemes?
- 4. What are your views on the relationship between the farmers and the strategic partner?
- 5. According to your opinion, what are the challenges and the opportunities that farmer are experiencing?
- 6. What recommendations do you have to improve the situation?