

THE IMPACT OF GOVERNMENT INTERVENTION ON SMALL SCALE IRRIGATION SCHEMES IN SEKHUKHUNE DISTRICT: A CASE STUDY OF THE TSWELOPELE SCHEME

R.B. Mphahlele¹; A.E. Nesamvuni²; I. Groenewald³ and M.C. Dagada²

¹University of the Free State; National Department of Rural Development and Land Reform, Private Bag x 833, Pretoria, 0001. Tel: 012 312 9165. Fax: 012 323 4796.
E-mail: RBMphahlele@ruraldevelopment.gov.za

²University of Free State; Limpopo Department of Agriculture, Private Bag x 9487, Polokwane, 0700. Tel: 015 294 3000. Fax: 015 294 4534.

³University of Free State, Centre for Sustainable Agriculture and Rural Development, Faculty of Natural and Agricultural Sciences (68), PO Box 339, Bloemfontein, 9300. Tel: 051 401 2163/3726. Fax: 051 401 3726.

ABSTRACT

Irrigation schemes were first developed in South Africa during the apartheid era for commercial farming. The schemes were gradually introduced in the small-scale farming communities of former homelands for commercial purposes, improving household food security and alleviating poverty. Revitalization of small scale irrigation schemes is central in the Integrated Sustainable Rural development Strategy as an opportunity for rural communities to improve their livelihood.

The three government intervention initiatives analyzed in this study include: tenure security, agribusiness development and infrastructure development. This study is different from previous studies in that it analyses the impact of specific intervention variables that government is implementing as part of revitalization. A case study of Tswelopele Irrigation Scheme, which is situated in Sekhukhune District, was used for this study. The population of the study was composed of all 84 farmers of Tswelopele irrigation scheme. In order to get a holistic view, all farmers who are participating in the scheme were interviewed. The data was gathered by means of face to face interviews using the semi-structured questionnaire with open end questions and close ended questions to allow scope for the gathering of additional (insightful) information. The study revealed continuous inequalities in terms of gender representatives within the scheme infrastructure development was very poor in the past years; however the study revealed significant improvements in the recent years due to the revitalization process. Farmers have also improved their tenure security by entering into a lease agreement with the land owners. However, farmers are still lacking in areas such as capacity building (technical and entrepreneurial skills), linkages within the sector and social cohesion. Government policies have also shown some gaps which need to be reviewed into in order to improve the impact of government assistance to small scale farmers. The economic viability and sustainability of these schemes are recommended for further research.

Keywords: Agricultural production, Commercial farmers, Emerging farmers, National Water Act, Small irrigation scheme, Land tenure security

1. INTRODUCTION

One of the major policy debates in South Africa concern the way in which small farmers could be effectively reintegrated into the mainstream economy (Ngqangweni *et al.*, 1999). Small-scale irrigation farming is envisaged as playing a progressively larger role in rural development and in reducing some of the inequalities inherent in South Africa's space economy (Tapela, 2005). The historical context of gender inequalities in access to and control over productive resources in communal settings and the observation that women's roles and interests in land are increasingly politicized and contested indicate a need for a gender-sensitive examination of the commercialisation on the livelihood of women and men living in emerging small-scale irrigation schemes (Tapela, 2005). The greatest obstacle to increased production and commercial sales are lack of physical infrastructure, production inputs, credit, markets, extension, research and

training, and security of production rights, for example, through legally protected rental agreements (Kirsten and Van Zyl, 1996).

Since 1994, the application of land reform measures were applied in many ways while land redistribution targets were also significantly adapted (Van der Westhuizen, 2005).

Land tenure reform as part of land reform measures refers to a planned change in terms and conditions. A fundamental goal is to enhance and to secure people's land rights (Martin *et al.*, 1999).

Since 2005 the Limpopo Department of Agriculture (LDA), has been engaged in a program to revitalize approximately 126 smallholder irrigation schemes covering 19000 ha which is held by 12,600 farmers through the installation of new efficient infield irrigation systems as well as supportive bulk infrastructure (LDA, 2005). This irrigation schemes are located within the communal/traditional areas which are mostly registered in title as State land allocated to various tribes, with the exception of one scheme which is solely administered by LDA. Farmers within this schemes are allocated individual plots averaging 0.8 – 6 ha either through Permission to Occupy (P.T.O), lease contracts or letters of occupation from their traditional authorities.

2. PURPOSE

The purpose of the study was to assess the impact that government interventions on tenure security, agribusiness and infrastructure have on small scale irrigation scheme in Sekhukhune District. The interest for this study emanates from the reality that small-scale irrigation farming is envisaged as playing a progressively larger role in rural development and in reducing some of the inequalities inherent in South Africa.

3. STUDY AREA

The study was conducted in Tswelopele irrigation scheme which is located within Praktiseer 275 KT farm in Greater Tubatse Municipality. Tswelopele is a small scale irrigation scheme located approximately 15 Km West of Burgersfort town and occupies an area of 440 ha with 84 farmers. The scheme was established in 1977 by the Bantu Investment Cooperation (BIC) within the 685 ha of the State land farms; Steelpoortdrift 296 KT (225 ha) and Praktiseer 275 KT (460 ha) with Latitude 24° 58'S and Longitude 30°32'E (LDA, 2008). The scheme was managed by the BIC and later by its successor organizations such as Lebowa Agricultural Cooperation (LAC) and Agricultural and Rural Development Cooperation (ARDC).

4. METHODOLOGY

Data was gathered from a total population of 84 farmers by means of face to face interviews using the semi-structured questionnaire with open end questions and close ended questions to allow scope for the gathering of additional (insightful) information. Personal interview was used because the procedure usually requires the interviewer to ask prepared questions and to record the respondent's answers. Data was analyzed and interpretations drawn in line with the main purpose of the study. The Statistical Package for Social Sciences (SPSS-17.0) and excel computer program were used for entering and analyzing of the data.

5. RESULTS

5.1 Farmers Profile

5.1.1 Gender

Table 1 shows that 71.4% of farmers participating in the scheme are male whilst the remaining 28.6% are female. The significance of the percentages indicates that there is relatively higher number of male farmers participating in the irrigation scheme against their female counterparts. However, this shows clearly that although Tswelopele irrigation scheme is still dominated by male farmers, females are starting to emerge in the farming industry. More lobbying for women to enter into farming mainstream is still need to be encouraged

Table 1: Gender profile of farmers in the scheme.

Gender	Number	Percentage (%)
Male	60	71.4
Female	24	28.6
Total	84	100

5.1.2 Age

The age profile of farmers within the irrigation scheme was investigated as a social variable which shall assist in determining the sustainability of the scheme. In the categories: 18-35 represent 6.0% of farmers; 36-45 represent 19.0% of farmers; 46-55 represent 51.2% of farmers; 56-65 represents 14.3% of farmers whilst > 65 represent 8% of farmers. The highest number of farmers participating in the scheme (46-55 yrs) together with pensioners (> 66 age group) is considered to be a risk factor in the sustainability of the scheme over a long term due to a lack of succession plan and reluctance of the youths (18-35) to participate in the scheme.

5.1.3 Income Levels and Sources

Table 2: Income levels of farmers in the scheme.

Income level	Number of farmers	Percentage (%)
< 1000	49	58.3
1001 – 2000	21	25.0
2001 – 4000	11	13.1
4001 – 6000	1	1.2
Undisclosed figure	2	2.4
Total	84	100

Majority of farmers in the scheme (58.3%) have a monthly income of less than R1,000.00, whilst only one farmer constituting 1.2% have an income which ranges between R4, 001.00 – R6,000.00 per month. The significance of the finding is that, there is relatively high number of farmers who are barely earning enough to can sustain their livelihood and this provides a great potential for them to participate full time in farming and improve their income.

Their source of income indicates that 66.7% of farmers are employed, 52.3% of them being male while 14.3% are female, whilst on the other hand 2.4% depend on their family support and the remaining 28.6% receives grant. Most farmers are employed on part time basis in and around the nearby town of Burgersfort which is located 5 Km from the scheme. This partly explains the reasons behind the disengagement of farmers to participate actively in the scheme over the years.

5.2 Access to Land by Tswelopele Farmers

In the year 2006; 84 farmers from both Praktiseer and Steelpoortdrift farms were selected to participate collectively within the Praktiseer farm. Since 2001 to 2006, farmers used to be allocated 5 Ha individual plots which they operated on by LDA through a five years lease contract, however after the 2006 selection farmers were no longer allocated individual plots but ceded their land rights to their registered cooperative.

The portions 1, 2 and 4 of Praktiseer 275 KT are registered in the deeds office as State land under the administration of department of Land Affairs. The farmers have then entered into a (3) three years *notarial* lease agreement with the department of Land Affairs commencing in 2009 which shall elapse in 2012.

The gender distribution of the 84 farmers within the scheme is 71.4% male and 28.6% female as illustrated in table 1. The land allocation to farmers in 2006 was not linked to either income or gender of the farmer but strongly linked to the willingness of individuals to further participate on full time basis in the scheme. However, several factors such as income, locality and farming experience seem to have determined the equity of land allocation in the past years, and since the current 84 farmers were selected from the previous pool of 137 who participated in the scheme it could be probable that the scheme has inherited the current gender inequality.

5.3 Land Use and Resources Utilization

Since 2001 to 2006 the farmers operated in both Steelpoortdrift and Praktiseer farms as members of Tswelopele irrigation scheme. The respond of the 84 farmers from both farms regarding their land use between 2001 and 2006 indicates that 78.6% of farmers cultivated their allocated 330 hectares, whilst 21.4% of their counterpart left their 90 hectares uncultivated. On the land which was cultivated, 78.3% of the farmers cultivated cotton through a strategic partnership agreement with a private partner between 2003/04 and 2004/05 planting seasons, and the remaining 4.8% of farmers have individually planted horticultural crops (pumpkins and tomatoes) in the same years.

Cultivation of the 330 hectares of land was done in Praktiseer farm, whilst the 90 fallow hectares of land was in Steelpoortdrift farm. The farmers have only utilized their land in the above mentioned years and all of them have since stopped/disengaged in farming activities.

It is evident from this discussion that there has been an underutilization of land as a resource by Tswelopele farmers, because in their previous five years (2001-2006) leasing period they effectively cultivated the land for only two planting seasons whilst 90 ha was left fallow/uncultivated. Most of the farmers (56.0%) indicated the lack of infrastructure and funding as reasons that made them to stop farming, whilst 42.9% of them indicated only the lack of infrastructure as their reason for stopping to utilize the land, and only 1.2% cited to be demoralized by the non payment from strategic partner after the cotton harvesting in two consecutive years. However, it is important to note that the results of the farmer's reasons for not utilizing the land exclude the two years (2003/04 and 2004/5) which 66 farmers have been engaged in farming practices. The reasons advanced by the farmers clearly indicate that this resource poor farmers need to be assisted with amongst others; infrastructure and funding which will enable them to engage in meaningful farming activities.

5.4 Infrastructure Development and Finance

Most farmers (78%) have used sprinkler irrigation system whilst 21.4% of them didn't have any irrigation system. The 78% of farmers who used sprinklers planted cotton, tomatoes and pumpkins during the 2003/4 and 2004/5 planting seasons. The sprinklers were provided by the Strategic Partner (SP) for the duration of the planting season.

5.5 Determining Commercialisation Strategy in the Scheme

The results of this study indicates that 100% of farmers have been farming individually in the past production seasons of 2001-2006. Farmers have operated individually in their 5 Ha plots as allocated by LDA through a lease contract. It was clear from the results that although farmers had a SP, they still conducted their farming as individuals. However all interviewed farmers indicated that in the future they will participate collectively as a registered cooperative. Furthermore, farmers where not affiliated to any farmer's organization in the area.

6. CONCLUSION

There is gender inequalities in the scheme as majority of farmers are male whilst most women do not have access to land. Majority of these participants have reached their peak of economic participation as they fall within the range of 46-55 years of age, whilst the youth participation in the scheme is very low at 6.0%. It is our view that the allocation of plots should ensure that there is a gender balance which is collaborated with succession plan. As part of tenure security necessary for sustainability of projects, LDA facilitated a process where farmers entered into a further three (3) years lease contract with the "Land Owners" - Provincial office of Department of Land Affairs. The findings indicate that government intervention made it possible for farmers to have the secured tenure.

The government in realization of the fact that Tswelopele farmers did not have access to physical infrastructure and production inputs, they have then intervened in November 2005 by revitalizing the scheme as part of its RESIS program which was completed in April 2008. The process of revitalization saw Tswelopele irrigation scheme being equipped with floppy irrigation system.

Through government intervention the farmers were also linked with a strategic partner in 2008 with clear guidelines that the strategic partner will supply inputs, credit, market and also transfer skills to the farmers. Most importantly the partnership is based on 50/50 percent profit sharing for the first and second harvest, which scales down to 60/40 percent share on third harvest with a strategic partner owning majority shares.

REFERENCES

- Kirsten, J.F. and Van Zyl, J. (1996). The costs and benefits of providing agricultural support services to rural households in the developing areas of South Africa. *Development Southern Africa* 13 (3), pp. 415-428.
- Limpopo Department of Agriculture (2005). Strategic Plan, 2005-2010. Farmer Support and Development, South Africa, Polokwane.
- Limpopo Department of Agriculture (2005). Co-operative/Group Farming Projects – LDA Policy Framework for Financing of Revitalized Irrigation Schemes/Projects under MAFISA for Commercial Profit, South Africa, Polokwane.
- Ngqangweni, S., Kirsten, J.F., Lyne, M. and Hedden-Dunkhorst, B. (1999). Measuring smallholder comparative advantage in three South African provinces. *Agrekon*, 38 (special issue), pp. 235-242.
- Martin, A., Sipho, S. and Stephen, T. (1999). Land Tenure Reform and Rural Livelihoods in Southern Africa. *Natural Resource Perspective*, No. 39. Overseas Development Institute, UK.
- Tapela, N.B. (2005). Joint Ventures and Livelihoods in emerging small-scale irrigation schemes in Greater Sekhukhune district: Perspectives from Hereford. Research report, No.21. Programme of land and agrarian studies. School of Government, University of Western Cape.
- Van Der Westhuizen, C. (2005). Land reform: Lessons from a Southern-eastern Free State Experience. *South African Journal of Agricultural Extension*, 34, (1).pp.1-18.