

Full Length Research Paper

Transforming smallholder agriculture through cooperatives for improving households' food security at OR Tambo District Municipality, South Africa

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Agriculture is a primary source of food, employment and income in rural households. Agricultural cooperatives have been regarded as possible vehicles in achieving these objectives. Small holder farming in the OR Tambo District Municipality has marginally been performed in contributing to households' food security. Research indicates that there are many factors affecting agricultural cooperative development and agriculture productivity that are unique. This study investigated the role of agricultural cooperatives in transforming small holder agriculture and household food security in OR Tambo District municipality. A questionnaire and focus group discussions were used in data collection. Comparison of means and construction of themes were used in data analysis. The findings showed that agricultural cooperative members had very little understanding of the cooperative principles. They experienced low commodity prices and lacked the knowledge and capital to deal with food insecurity. They employed a variety of coping strategies to deal with these challenges. Most households were in the moderately to mildly food insecure categories. Transforming small holder agriculture in OR Tambo District Municipality will require building members' capacity on cooperative principles and agricultural production processes for improved households' food security.

Key words: Co-operatives, climate, agriculture, food security, coping strategies.

INTRODUCTION

Cooperatives have been promoted world over with the aim of enabling small producers to tap into mainstream economic activities. A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. The United Nations recognizes the contribution cooperatives can make in contributing to the

global development goals including productive employment, eradicating poverty, enhancing social integration and especially promoting the advancement of women. Whereas the development potential of co-operatives is in principle not different from the one of other types of enterprises, the double nature of co-operatives (members are at the same time owners and users of their co-operatives) makes them more

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appropriate for specific population groups, geographical areas, sectors or situations. Hence, co-operatives possess an inherent special potential for socio-economic development. Cooperatives function as an economic unit to promote their members by rendering services, rather than to maximize profits. Cooperative businesses stabilize communities because they are community-based business anchors; and distribute, recycle, and multiply local expertise and capital within a community. They pool limited resources to achieve a critical mass. They enable their owners to generate income, and jobs, and accumulate assets; provide affordable, quality goods and services; and develop human and social capital, as well as economic independence (Nembhard, 2014). Agricultural cooperatives have the potential of helping small-holder farmers aggregate their surplus output, pool both tangible and intangible resources, generate economies of scale and scope in marketing (Markelova and Mwangi, 2009). OR Tambo District Municipality is a generally rural district where agriculture still plays an important role in households' food security.

Working with cooperatives in Malawi, Lecoutere (2017) showed that being a member of an agricultural cooperative had a significantly positive impact on economic wellbeing, knowledge and adoption of agronomic practices, especially among women. In the rural context, cooperatives are appreciated for their role in combining business enterprises with a concern for communal welfare with indirect benefits of improving socio-economic status of communities through improved incomes (Majurin, 2012). Further, agricultural cooperatives can simplify marketing and value addition by directly bypassing intermediaries and lowering horizontal and vertical coordination costs (Shiferaw et al., 2009).

According to Develtere et al. (2008), approximately one in seven Africans now belong to a cooperative, with countries such as Senegal, Rwanda, and Egypt possessing membership rates of over ten percent. These 'contemporary' cooperatives have been reported to benefit smallholders economically by reducing transaction costs, increasing market access, and improving bargaining power (Bernard and Taffesse, 2012). Work done by Thamaga-Chitja et al. (2011) showed that agricultural cooperatives do experience challenges ranging from internal factors that included low capabilities of the cooperative to mobilise and utilise their limited resources, low capabilities for management of institutional arrangements and external factors that included lack of external support such as finding, education and extension services. They further showed that apart from the small land holding limiting farmers' expansion to meet the high produce demand, the land tenure system legally prohibited the farmers from using the land as collateral for obtaining loans from funding institutions. Therefore, there was serious under capitalisation issues within the cooperatives leading to

the aforesaid ineffectiveness.

LITERATURE REVIEW

In South Africa before 1994, there existed well-established agricultural cooperatives, predominantly white that received a lot of support from the apartheid government (Phillips, 2003:17; DTI, 2004: 6). They were backed by ready access to finance through the Land Bank, and with effective control of the market boards that regulated prices.

Post 1994, the South African Government acknowledges that development of cooperatives is a significant and advisable means for mitigating poverty and unemployment. The Cooperatives Development Policy for South Africa which forms the basis for the Cooperative Act 14, 2005 (establishment and development of cooperatives) was adopted in 2004 (DTI, 2004: 1). The South Africa Government's approach to co-operative development is one of creating an enabling environment for cooperatives to thrive (Department of Trade and Industries ((DTI), 2004)). The 2012–2022 *Integrated Strategy on the Development and Promotion of Cooperatives* is aimed at promoting co-operatives, in order to unleash their potential to create and develop income-generating activities and decent, sustainable employment. The strategy aims to reduce poverty, develop human resource capacities and knowledge; strengthen competitiveness and sustainability; increase savings and investment; improve social and economic well-being; and contribute to sustainable human development. As a result, cooperatives have been receiving increased financial and other support from development and government agencies to facilitate agricultural system innovation and poverty alleviation (Johnson and Shaw, 2014).

Most cooperatives in South Africa are currently black controlled, are young "emerging cooperatives" which, in the government's view, warrant intense support intervention in order to attain medium and long-term sustainability and success (DTI, 2009: 1; Ortmann and King, 2007: 40). The South African Government has in the recent past promoted and supported cooperatives presuming that cooperative form of ownership benefits the whole community in a collective manner rather than developing an individual. Investment in cooperatives would result in 'decent work opportunities', 'sustainable livelihoods', 'increased agricultural production and productive land-use' and 'financially viable entities that can implement employment-intensive production schemes' (Zuma 2009). This paper aims to gain a better understanding of the contribution of smallholder agricultural cooperatives in OR Tambo District to members' household food security and to identify institutional and governance constraints affecting their performance.

MATERIALS AND METHODS

Our population of interest were households who are involved in agricultural cooperatives in O. R. Tambo District Municipality. A total of 405 households from all the five local municipalities participated in the study: King Sabata Dalidyebo (67), Nyandeni (62), Ingquza Hill (135), Mhlontlo (79), and Port St. Johns (62). Convenience sampling (A type of nonprobability sampling) was employed in the study where we started carrying out interviews with the first households researchers were guided to by a community guide. This was then followed by snowball sampling where existing participants were used to recruit the next participants until there were no more qualifying households to be interviewed.

The study employed a mixed method where quantitative research was employed in assessing magnitude and frequencies of constructs while qualitative methods were used in exploring meaning and understanding of constructs (Tashakkori and Creswell, 2007). Primary data were collected using a household survey and focus group discussions. Semi-structured interviews were conducted with key informants involved in cooperatives including traditional leadership, development organizations, and government. Data were analysed using SPSS.

RESULTS

Main household livelihood strategy

Table 1 shows that across all the five local municipalities, majority of the respondents depend more on grants for their livelihood (54.8-75.9%). Cooperatives formed second largest main livelihood strategy (38.7-45.2%). It was expected that households' involvement in agricultural cooperatives would complement and promote individual household agricultural practices, which was not the case. From our focus group discussions, fencing of individual household land for agriculture was their greatest limitation due to the cost involved. Further, they indicated that water for irrigation was not easy to come by at their individual household gardens. This makes agricultural cooperatives a lesser livelihood strategy and that there are a number of barriers that are limiting performance of cooperatives.

Households' exposure to agricultural information

Households received agricultural information that was useful to their agricultural production processes (Table 2). The results show that there are households who have never received any information based on agricultural production. Port St. Johns leads this category of households with 45.2%. However, the majority had received information of agricultural production in the past one month, followed by households who received information in the past one year. Critical information like weather reports of local conditions was lacking due to lack of appropriate information gathering infrastructure. Limited agricultural information negatively affected agricultural productivity of cooperatives in form of lack of innovative and new methods of doing agricultural

business.

Cooperative land ownership

Cooperative members were asked the type of ownership of the land on which the cooperative was operating (Table 3). Generally, across the district, cooperatives were utilising members' land for their cooperative activities with substantial numbers using communal land for the cooperative activities (31.3 - 54.1%). It was indicated that the nature of land ownership does not allow for cooperatives to undertake structural developments e.g. irrigation systems because cooperatives do not own the land on which they operate.

Cooperative agricultural activities

Cooperatives were involved in a variety of agricultural projects (Table 4). The two prevalent occupations were vegetable and maize and other cereals production. Members indicated that there was market for the vegetables and cereals and that their productions costs were relatively low. One thing that bothered them was theft on their crops while in the fields. This was a problem since they had to limit their cropping fields to those that were close to their households limiting their ability to expand.

Households' food security

Households were categorised into food security categories using the Household Food Insecurity Access Scale (HFIAS) (Table 5). Most households across the district are in the category of moderately food insecure. This is followed by fewer households that are mildly food insecure. We have very few outliers across the district that is food secure and severely food insecure. Household food security is predominantly affected by external incomes including salaries, remittances, grants and pensions. These sources of income are not stable and hence the instability in household food security.

Conclusion

The results show that overall, households did not use the proposed coping strategies more frequently. Coping strategies that were used more as compared to the others included; eating less preferred and less expensive food, increasing short term food availability, borrowing food from friends and relatives, purchasing food on credit and limiting portion size at meal time. Extreme coping strategies like consuming seed stock and skipping entire day without eating were seldom used.

Type of land ownership by agricultural cooperatives

Table 1. Main Household livelihood strategy.

Main livelihood strategy	Local Municipalities				
	King Sabata Dalidyebo	Nyandeni	Ingquza Hill	Mhlontlo	Ports st Johns
Cooperative	26 (39.4%)	25 (40.3%)	61 (45.2%)	31 (39.2%)	24 (38.7%)
Employment	9 (13.6%)	6 (9.7%)	8 (5.9%)	8 (10.1%)	8 (12.7%)
Grant	50 (75.8%)	34 (54.8%)	100 (74.1%)	60 (75.9%)	43 (69.4%)
Trade/Business	1 (1.5%)	3 (4.8%)	4 (3.0%)	1 (1.3%)	1 (1.6%)
Labour/ Wages	2 (3.0%)	2 (3.2%)	6 (4.4%)	3 (3.8%)	2 (3.2%)
Household farming	7 (10.6%)	5 (8.1%)	11 (8.1%)	8 (10.1%)	5 (8.1%)
Service	0 (0.0%)	1 (1.6%)	0 (0.0%)	1 (1.3%)	0 (0.0%)

Source: Author's computation from field survey (2018).

Table 2. Frequency of access to agricultural information.

Frequency of access to agricultural information	Local Municipalities				
	King Sabata Dalidyebo	Nyandeni	Ingquza Hill	Mhlontlo	Port st. Johns
Everyday	1 (1.5%)	1 (1.6%)	-	1 (1.3%)	-
In the past one week	5 (7.5%)	8 (12.9%)	24 (17.8%)	1 (1.3%)	6 (9.7%)
In the past one month	27 (40.3%)	22 (35.5%)	32 (23.7%)	19 (24.1%)	19 (30.6%)
In the past one year	18 (26.9%)	21 (33.9%)	53 (39.3%)	43 (54.4%)	9 (14.5%)
never	15 (22.4%)	10 (16.1%)	26 (19.3%)	15 (19%)	28 (45.2%)

Source: Author's computation from field survey (2018).

Table 3. Type of cooperative land ownership.

Type of land ownership	Local Municipalities				
	King Sabata Dalidyebo	Nyandeni	Ingquza Hill	Mhlontlo	Port st. Johns
Communal	17 (25.0%)	22 (35.5%)	34 (24.1%)	25 (31.3%)	17 (27.9%)
Coop members' land	32 (47.1%)	22 (35.5%)	68 (48.2%)	25 (31.3%)	33 (54.1%)
Lease agreement	2 (2.9%)	4 (6.5%)	4 (2.8%)	5 (6.3%)	10 (16.4%)
Permission to Occupy	16 (23.5%)	14 (22.6%)	34 (24.1%)	25 (31.3%)	1 (1.6%)
Non-specific	1 (1.5%)	0 (0%)	1 (0.7%)	0 (0%)	0 (0%)

Source: Author's computation from field survey (2018).

Table 4. Agricultural activity of cooperatives.

Agricultural activities of cooperatives	Local Municipality				
	King Sabata Dalidyebo	Nyandeni	Ingquza Hill	Mhlontlo	Port st. Johns
Poultry keeping	17 (25.4%)	6 (9.7%)	33 (24.4%)	11 (13.9%)	5 (8.1%)
Livestock keeping	11 (16.4%)	5 (8.1%)	10 (7.4%)	9 (11.4%)	2 (3.2%)
Vegetable production	42 (62.7)	43 (69.4%)	109 (80.7%)	40 (50.6%)	47 (75.8%)
Maize and other cereals	44 (65.7%)	27 (43.5%)	48 (35.6%)	47 (59.5%)	26 (41.9%)
Fruit production	5 (7.5%)	9 (14.5%)	37 (27.4%)	5 (6.3%)	1 (1.6%)
Fish production	1 (1.5%)	10 (16.1%)	1 (0.7%)	4 (5.1%)	1 (1.6%)
Bee keeping	0 (0.0%)	10 (16.1%)	1 (0.7%)	4 (5.1%)	0 (0.0%)
Wool production	6 (9.0%)	4 (6.5%)	5 (3.7%)	1 (1.3%)	0 (0.0%)
Mixed farming	3 (4.5%)	4 (6.5%)	2 (1.5%)	4 (5.1%)	1 (1.6%)

Source: Author's computation from field survey (2018).

Table 5. Household food security categories.

Food security categories	Local Municipality				
	King Sabata Dalidyebo	Nyandeni	Ingquza Hill	Mhlontlo	Ports st Johns
Food secure	9 (13.4%)	7 (11.3%)	17 (12.6%)	17 (21.5%)	5 (8.1%)
Mildly Food Insecure	16 (23.9%)	10 (16.1%)	23 (17.0%)	19 (24.1%)	7 (11.3%)
Moderately Food Insecure	36 (53.7%)	37 (59.7%)	85 (63.0%)	35 (44.3%)	42 (67%)
Severely Food Insecure	6 (9.0%)	8 (12.9%)	10 (7.4%)	8 (10.1%)	8 (12.9%)
Total	67 (100%)	62 (100%)	135 (100%)	79 (100%)	62 (100%)

Source: Author's computation from field survey (2018).

has profound effect on the level of agricultural productivity. There is need for government to consider land ownership options that will promote investment in agriculture. Limited markets confined agricultural cooperatives vegetable and maize production. Programmes that promote value addition will go a long way in opening avenues for diversified agricultural production. O R Tambo District Municipality should work on a strengthened and effective agricultural extension programme that can be able to reach the agricultural cooperatives for improved agricultural production and food secure households. This will call for collaboration of all relevant departments and development partners who are working in the community development sectors.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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