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Review

A review of the possibilities of alleviating poverty and food insecurity challenges in South Africa through agricultural cooperatives

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The issue of food insecurity and poverty has been a critical one since the dawn of democracy in South Africa. With the World Bank also, having set the 2014 target of halving poverty in developing countries, the South African government has found itself with a task of finding ways of contributing towards meeting this target. One approach that has been proposed by many as the best vehicle for addressing these challenges particularly in the rural areas has been that of channeling resources towards the uplifting of the smallholder agricultural sector. In addition to this, there is evidence that smallholder farmers can actually perform better if they pool their resources together and work as cooperatives. This paper therefore seeks to provide evidence of the importance of using cooperatives to empower smallholder farmers in an attempt to reduce poverty and food insecurity in South Africa. It further highlights the various challenges that need to be addressed to allow cooperatives to reach their full potential. The paper concludes by suggesting a few interventions that could be implemented in order to boost the smallholder farming sector's cooperatives with the hope of helping the nation reduce its poverty levels and become more food secure.

Key words: Poverty alleviation, food security, agricultural cooperatives, smallholder agricultural sector, job creation.

INTRODUCTION

South Africa has a dual agricultural economy which is divided into commercial and smallholder farmers (Oettle et al., 1998; Vojtech, 2006). Makumbi (2008) revealed that the former consists of at least 60,000 producers that, apart from occupying 87% of the nation's total arable land, they are well financed and have plenty of farming experience. Sandrey and Vink (2008) further described them as heavily dependent on advanced technology, most of which is imported, and are usually successful and profit minded farmers. On the other hand, Kirsten and Van Zyl (1998) associated the smallholder sector in South Africa with backward, non-commercial, less productive and subsistence agriculture that is found in parts of the former home land-areas. It is generally linked with blacks who do not have the ability to become large-scale commercial farmers.

Some agricultural economists accept this definition of small-scale farmers postulated by Kirsten and

Van Zyl (1998) but with little skepticism. As a matter of fact, they proposed that small-scale farmers should also be defined in terms of their agricultural activity in whatever form. Thus, this sector is made up of those farmers whose main goal is to produce food for their families on a daily basis. Under such circumstances, only the surplus is considered for sale in order to supplement their income and diversify their diet. However, to try to prove the validity of this definition, Ouattara and Graham (1996) and Baydas and Graham (1996) carried out a study in the Northern Cape and Kwa-Zulu Natal Provinces where they compared small-scale business enterprises and small-scale farmers.

Their results indicate that farming plays a small role in terms of income generation. This is in spite of a major proportion of small-scale farming households (and small business households) cultivating their land and producing crops. A similar state of affairs was also noted by Monde (2003) in the Eastern Cape Province who, however, accepted that this was mostly due to the several constraints that the smallholder sector has to deal with on a regular basis. This is why Rao and Chotigeat (1981) stood by their view that in the face of the smallholder sector's modest contribution so far, the sector could actually be the key to drive poor households out of poverty.

In fact, the South African government committed to halving poverty between 2004 and 2014 as per the millennium development goals (MDGs). Achieving household food security is a critical component in meeting this objective. Despite its commitment, the reality in South Africa is that this target is unlikely to be met due to various reasons such as the global recession whose severity led to a negative economic growth in 2009 and constrained the projected economic growth rate of an average of 4.5% between 2005 and 2009 and to an average of at least 6% from 2010 to 2014.

Other contributing factors have had a direct bearing even on smallholder farmers and include the slow rate of the land reform programme (LRP), the ineffectiveness of government's farmer support programmes (FSPs), skills constraints and the scarcity of resources in both the private and public sectors. In consequence, the smallholder farming sector remains far less developed which in turn has led to its low productivity. Regarding the agricultural sector, such resource constraints have prompted the South African government to intervene in an attempt to revive the sector and make the famers more productive and competitive through encouraging the formation of agricultural cooperatives. This paper therefore seeks to assess the role of cooperatives within the South African agricultural sector through examining their history, contributions towards poverty alleviation and food security. It further highlights the challenges that such cooperatives in the country face in their daily attempts to become efficient and effective in a very competitive and ever-changing global economy.

DEFINITION AND NATURE OF COOPERATIVES

A cooperative is an autonomous association of persons that come together of their own accord to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. Kennedy et al. (1995) further emphasized that all the members of a cooperative are driven to come together specifically to meet common needs that they would otherwise be unable to meet if operating as separate individuals. Ortmann and King (2007) and Philip (2003) share the view that cooperatives are formed to help minority groups such as smallholder farmers strengthen their bargaining power, maintain access to competitive markets, capitalize on new market opportunities, improve income opportunities, and obtain needed products and services on a competitive basis. Regardless of what brings individual farmers together to form a cooperative, Ortmann and King (2007) further stated that all cooperatives maintain certain common characteristics.

The first of these common characteristics is that members are the sole owners of their cooperatives. These members democratically and collectively make all the major decisions that affect the cooperative on a one-member, one-vote basis, regardless of how much each member invested in the cooperative. For this reason, Kennedy et al. (1995) and Nilsson (1997) regard them as being member-driven and rely upon members to work together collectively in an attempt to achieve a common goal. Furthermore, cooperatives have also been known to democratically elect some of their members to act as their board of directors to represent the interests of all members (Cornforth, 2004).

Another common characteristic given by Mcbride (1986) and Ortmann and King (2007) is that they are motivated not by profit, but by the need to provide a service that satisfies the members' requirements for affordable and quality goods or services. Fulton et al. (2002) further argued that cooperatives have a dual nature caused by the fact that they are both an association of people and a business enterprise at the same time. This dualism also emanates from its members being both the owners and users and thus makes it easier to balance between the need for profit and the provision of a service. Nevertheless, the ability to strike this balance between profit and the provision of a service can be a vital source of the cooperative's strength or its weakness. In reality, history has actually shown that problems within cooperatives usually arise when the members lose sight of how to balance these two and become biased towards one at the expense of the other.

In terms of types, cooperatives exist within five distinct traditions namely the: (i) consumer co-operatives; (ii) worker cooperatives; (iii) credit cooperatives; (iv) agricultural cooperatives; and (v) service cooperatives such as housing and health cooperatives. The focus of

this paper is only limited to agricultural cooperatives which come in three broad categories depending on their main activity. As given by Cropp and Ingalsbe (1989) and Ortmann and King (2007), there are (i) marketing cooperatives (which may bargain for better prices, handle, process or manufacture, and sell farm products); (ii) farm supply cooperatives (which may purchase in volume, manufacture, process or formulate, and distribute farm supplies and inputs such as seed, fertilizer, feed, chemicals, petroleum products, farm equipment, hardware, and building supplies); and (iii) service cooperatives (which provide services such as trucking, storage, ginning, grinding, drying, artificial insemination, irrigation, credit, utilities, and insurance). Regardless of which form of cooperative one looks at, they all share the same seven internationally recognized principles of; (i) having a voluntary and open membership; (ii) being democratically controlled by members; (iii) having member economic participation; (iv) autonomy and independence; (v) provision of education, training and information; (vi) cooperation among cooperatives; and (vii) concern for the community.

THE HISTORY OF COOPERATIVES IN SOUTH AFRICA

According to Ximiya (2004), the whole idea of cooperatives was first conceived and given birth to during the 1840s' Industrial Revolution in England when a group of workers came together, formed a small shop in Rochdale that was meant to provide them with their basic necessities at the lowest possible prices. Chibanda (2009) mentioned that this Rochdale cooperative sold items such as flour and sugar to members. Within 2 years, a number of similar shops had emerged from various corners of the nation and this prompted Friederich Reiffeisen of Germany to convince farmers to establish their own credit banks to assist them with capital when intending to purchase agricultural inputs such as seeds and fertilizers. Ximiya (2004) further stated that these farmer-established banks later became cooperative banks, some of which still exist even today.

Nonetheless, not all countries were able to adopt this approach that had proven to yield so many fruits in England for various reasons. In the case of South Africa, the first cooperative was established after 1892 and it catapulted the smallholder agricultural sector in the nation into strong, efficient and productive commercial farms (Ximiya, 2004). The problem though with cooperatives at that time was that South Africa was already segregated on racial grounds. As such, during their early days, the cooperatives were biased mostly towards the white minority at the expense of other races. In fact, any groups of non-white people that came together for whatever reason were regarded as a threat to the then government. In the opinion of Ximiya (2004), even agricultural cooperatives were taken as a way of organizing people against the government hence this "threat" was "managed" by the government putting legal restrictions on who could or could not form a cooperative. Only white farmers were allowed to form and operate cooperatives but all people of colour were required to first apply for a special ministerial permission outlining their objectives before forming a cooperative. Other subsequent reasons behind the failure of non-white cooperatives in South Africa as identified by Chibanda (2009) and Machethe (1990) include the members' lack of membership identity with their respective cooperatives, lack of understanding cooperative principles, lack of education and skills training and/or poor extension advice; and their inability to dismiss inefficient management.

Chibanda (2009) wrote that as time went on, the then Natal eventually became the first province to establish commercial farm cooperatives in the form of Pietermaritzburg Cooperative Society and the Natal Creamery Limited cooperatives. Literature from Barratt (1989) suggested that it was only after 1911 that the first cooperative in the Orange Free State was established, exactly 3 years after the formulation of the 1908 South African Cooperatives Act. In an attempt to further promote cooperatives, the government established the Land and Agricultural Bank of South Africa in 1912 with a clear mandate to provide financial assistance to farmers in the form of loans (Barratt, 1989). According to Strickland (1937), as cited by Chibanda (2009), this Land and Agricultural Bank took over the provincial banks of the Transvaal and the Orange Free State Societies with unlimited liability. Many cooperatives continued operating in their original form until the late 1990's when, as noted by Phillip (2003), some changed and registered as limited liability companies.

In terms of governance, Satgar (2007) revealed that the cooperatives in South Africa are guided by two major pillars, the Cooperative Development Policy of 2003 and the Cooperatives Act 14 of 2005. The difference between these two is that the former provides a clear framework for the latter by setting out a vision, advocating for the use of cooperatives in development, defining the policy approach of government and most importantly outlines the roles and tasks of government to realise the objectives of the policy (Satgar, 2007; Chibanda, 2009). On the other hand, Satgar (2007) describeed the Cooperatives Act 14 of 2005 as fundamental in supporting this Cooperative Development Policy by clearly defining the scope, registration, membership issues, general meetings, management, capital structure, audits, restructuring, winding up, judicial management, administration, etc. In addition, Knight (2006) stated that this Act also encourages persons who subscribe to cooperative principles to register; promotes equity and greater participation of black people and; facilitates provision of support programs.

With development economists advocating for the use of agricultural cooperatives as the gateway out of poverty, enhancing empowerment and creating employment, the first democratic government of South Africa started channelling some of its resources towards promoting this cooperatives approach. However, the biggest challenge is that capitalism and economic growth at large have seen most cooperatives opening doors to outsiders for financial backing. Thus, they have lost their identity of being owner-operated and embraced the idea of operating as investor-owned organizations. As a consequence, their sustainability is now at risk as the priorities of the latter are not in favour of developing the basic farmers. All the same, all these problems hindering cooperatives should not be taken as an indication that cooperatives play an insignificant role in the reduction of food insecurity.

AGRICULTURAL COOPERATIVES IN POVERTY ALLEVIATION AND ACHIEVING FOOD SECURITY

Food security is when all people, at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle (FAO, 2002). This means a nation is regarded as being food secured when its entire people have access to sufficient food in order to sustain life. Campbell (1991) supported this definition but insisted that the acquisition of this

"sufficient food" should be through socially accepted norms such as purchasing without having to beg, rely on charity or steal. Using this definition, Graham (2009) disclosed that South Africa has a great inequality between the poor and the rich in terms of food security, with the majority of the poor being found in rural areas where incomes are hardly enough to provide daily meals. This indicates that despite South Africa being regarded by Machete (2004) and Mclachlan and Kuzwayo (1997) as a self-sufficient nation in food production, this self-sufficiency is only at national and not household level. This is shown by statistics from the National Treasury (2003) and confirmed by Terreblanche (2002) who maintained that about 14 million people in the country are vulnerable to food insecurity, whilst another 19 million of households suffer from poverty. This is mainly due to the fact that the majority of the poor have no access to decent jobs and other sources of income.

As a result of trying to find the right development initiatives to balance the food distribution in the nation, Eicher (1994) advocated promoting both middle and smallholder agriculture in getting agriculture moving. The same sentiment shared by the likes of Lopez (2002) and Machete (2004) who also believed in using agriculture as the main tool with which to tackle rural poverty. Mwaniki (2005) also argued that the key lies in increasing agricultural profitability of smallholder farmers and creating rural off-farm employment opportunities. Given this situation, Phillip (2003) concluded that agricultural cooperatives can provide sustainable solutions to the problem of food insecurity. Since agricultural cooperatives are close to the most food insecure and poverty-stricken citizens located in the rural areas, having sustainable production cooperatives will make a significant difference in their productivity. This is because agricultural cooperatives allow individual farmers to pool their resources together thereby enhancing their chances of getting better agricultural output as compared to individual subsistence farming. Furthermore, cooperatives provide a platform for the smallholder farmers to get support from the government and the private sector and in so doing improving the sustainability and long-term job creation.

When compared to commercial farms operated by individuals, Rosset (1999) claimed that larger farms usually practice monoculture which at times forces them to, at times leave part of their land idle so that it recovers its lost nutrients. On the other hand, smallholder farmers (and consequently cooperatives) tend to use their entire land parcels and get optimal output through using the intercropping approach which allows them to intensively produce a variety of crops on their small farms, whilst also preserving the soil nutrients. According to Rosset (1999), this intercropping approach helps the domestic consumers have access to a variety of products at cheaper prices unlike in the case of large-scale farms that produce limited varieties of crops due to monoculture. With more being produced by this sector at a low cost, poverty can be easily alleviated in the rural economies.

Mellor (1999) demonstrated the importance of agricultural cooperatives through looking at the predicted global demand for food in the near future. This demand is a result of the growth in human population which in turn will put pressure on the food resources. If this is the case, then the issue of finding sustainable ways of providing food for the extra mouths becomes an issue. As a solution, others have advocated for the idea of reviving the Green Revolution through Genetically Modified Organisms (GMOs) (Warren and DeWaal, 2002). On the other hand, the likes of Eicher (1994) remain steadfast that the key to providing adequate food especially at household level is in the hands of the smallholder farmers but only on condition that these famers are assisted with dealing with their challenges. This is the entry point of agricultural cooperatives as they come in with various advantages such as having the ability to stimulate competition by generating economies of scale; open up access to information through better market networks; help reduce barriers to market entry through the pooling of resources; and improve individual bargaining power through collective action (Mellor, 1999; Holloway et al., 1999).

Chambo (2009) indicated another merit that comes with

promoting agricultural cooperatives. This merit is that agricultural cooperatives create the ability for the supply of required agricultural inputs so that production of commodities is done timely to enhance productivity. In addition, Chambo (2009) stated that they also provide an assured market for commodities produced by isolated small farmers in the rural areas.

In South Africa, as in many other developing nations, smallholder farming is labour intensive and is mainly practiced by the poor and uneducated (Graham, 2009). This argument emanates from the conclusions drawn by Sandrey and Vink (2008) that commercial farmers are more capital than labour intensive and operating their technology requires people with some form of basic education or training. Consequently, those regarded as unqualified by the commercial sector, but with a passion for farming are thus left to be absorbed by the more labour-intensive and uncomplicated smallholder sector. Nevertheless, in smallholder farming, production is mainly for self-consumption and in most cases only surplus output is sold to generate extra income for the households. The government of South Africa is trying to make them more productive, thus bridging the existing inequality by the establishment of sustainable cooperatives. Advocating for the use of cooperatives to revive the smallholder sector is based on conclusions by Netting (1993) and Moore et al. (1998) that since the cooperative owners are also the same farmers working their individual farms, they are more dedicated to farming than hired labour whose performance or level of dedication is determined mostly by the wage rate. Consequently, sustainable cooperatives mean developed and more productive farmers, therefore creating more jobs for the poor and surplus food for marketing purposes (Satgar, 2007). This reasoning led Thirwall (2005) to conclude that if agricultural productivity can be enhanced even in the smallholder sector, then food security will also be ensured.

Another critical plus for the agricultural cooperatives emanates from their location close to the poor people in the rural areas (Altman et al., 2009). Due to their lack of transport and other constraints, most of their produce is sold within their respective communities and at low and affordable prices due to excess competition. This therefore raises the real incomes of the buyers as they can afford to buy more for less. As for those members within the cooperatives, they benefit through enhance nominal incomes. These positive contributions led Rao and Chotigeat (1981) to argue that smallholder agriculture can contribute significantly to poverty alleviation by raising agricultural productivity and rural incomes. On top of this, Feder (1985) explained that smallholder agriculture contributes to poverty alleviation through reducing food prices thereby making it possible even for the poor to afford adequate food quantities to sustain healthy lifestyles. This shows that the development of small-scale farmers through sustainable cooperatives will not only fight food insecurity but will go as far as fighting the causes of this problem.

Kirsten and Van Zyl (1998) shared the same view as Haggblade et al. (1989) as they argued that the demand for production inputs from other sectors could be stimulated if there are gains in output resulting from investments in the agricultural cooperatives. If this happens, then it creates what is known as backward linkages. Backward linkages also exist if the farming households use the income they obtain from selling their produce to purchase more farming inputs (which is investment) or even spend it on other items that have nothing to do with agriculture at all (expenditure), such as television sets, private cars, etc. (Estudillo and Otsuka, 1999). By doing so, they support the manufacturing sector through their agricul-tural income. In the opinion of Dorosh and Haggblade (1993), **t**he initial output gains also raise incomes and consequently spur consumer demand for other goods and services (forward linkages). In short, the revival of the smallholder sector through sustainable group efforts (cooperatives) not only benefits the cooperative members and their families, but also creates sustainable relationships with other sectors through the backward and forward linkages which in turn promote economic growth. Once the economy grows, then the citizens are assured of better incomes, resources and other necessary services and facilities.

Agricultural cooperatives are also a platform upon which producers can process and market their products. According to Downing et al. (1998), a cooperative structure serves to provide agricultural producers the opportunity to process and market their products in a joint business venture with other producers. Where quality standards are enforced, producer cooperatives can also play an important role in the uniform preparation of a commodity for a buyer whilst also minimizing the numbers of farmers with whom a commodity purchaser must do business. Additional benefits of cooperatives are arranging timing and scheduling of delivery, assigning transportation and delivery costs, setting delivery location, and securing prices. All these contribute towards making smallholder farmers a formidable force in the competitive agricultural sector thereby enhancing their overall contribution towards poverty alleviation and fighting food insecurity. Be that as it may, it should be acknowledged that getting agricultural cooperatives to such a level requires the realization and consequent elimination of the various constraints that they still face even today, more than 15 years into democracy.

CONSTRAINTS FACED BY AGRICULTURAL COOPERATIVES IN SOUTH AFRICA

In as much as the positive roles agricultural cooperatives play can be appreciated, it should be noted that the extent of their influence remains constrained by various

factors. Until these challenges are addressed, Kirsten and Van Zyl (1998) remain convinced that poverty and food insecurity will remain a threat to a number of poor households in the country, especially those in rural areas that rely on farming for their livelihood. Thus, when attempting to drive smallholder agricultural production through agricultural cooperatives, some of the policies should lean towards addressing the issues around the farmers' lack of arable land and skills; difficulties in accessing competitive markets and conflicts of interest and many others.

Lack of arable land

The issue of land in South Africa has been discussed and discussed since the dawn of democracy but without any visible resolutions. In spite of the government's attempts to equitably redistribute land through its three-pronged LRP, the majority of smallholder farmers remain with either small pieces of land or none at all. Vink and Van Rooyen (2009) revealed that between 2002 and 2006, the number of people in the country with land for agricultural purposes declined by 21%. Fraser et al. (2003) analyzed the land holding situation in the Eastern Cape Province and came to the conclusion that there are some small-scale farmers with access to arable land. However, due to their lack of proper resources with which to work their land, most of them tend to resort to cultivating their home gardens in an attempt to provide some measure of food supplementation. Fraser et al. (2003) went on to note that such farmers could not afford to buy inputs even if they pooled their financial resources amongst five households. As a result, even those that had formed cooperatives either have inadequate pieces of land or remain unable to farm their land.

Lack of adequate education

One of the characteristics of small-scale farmers is that most of them lack basic education (Murage, 2006). Dealing with such people tends to be a serious problem especially when it comes to changing their farming attitudes. Ozowa (1996) provided evidence that most of them are risk-aversive hence prefer to continue using their old and less-productive ancient farming techniques than try the recently developed ones. As a result, Ozowa (1996) viewed such attitudes, fuelled by lack of basic education, as contributing towards the low level of adoption of agricultural production technology. In the opinion of Onuoha (2006), the more educated a farmer is, the more likely he or she is to adopt new ideas. Thus, most illiterate farmers are not prepared to adapt to conditions but prefer sticking to their tried and tested, though outdated, methods (Taher, 1996). Furthermore, things like business plans and book-keeping need one to at least have basic education, something most rural farmers do not have. Tshikudu (2005) noticed the effects of farmer-illiteracy in Limpopo when the previously high-producing citrus and banana orchards became dysfunctional after the withdrawal of the government's Agricultural Rural Development Corporation (ARDC) and the Agricultural Corporation of Venda (AgriVen). The latter was established in November, 1981 with a clear mandate of initiating, financing and managing medium-sized agricultural projects until they were ready to be transferred to private entrepreneurs (Lahiff, 2000). These organizations used to expose farmers to new techniques and knowledge. The most productive farmers in the province were those that were educated. Apart from the production side, lack of basic education can be one source of conflict particularly in a situation where people work as a group as is the case with agricultural cooperatives. Less educated members feel threatened by those that are educated hence might resort to blocking every suggesting they make regardless of how good it is.

Lack of adequate skills

Since cooperatives are run as business enterprises by their owners who are also smallholder farmers, most members have been found to lack training in various crucial business management skills. In the Water Research Commission's (WRC) (2007) view, smallholder farmers currently have limited access to training. The little training available is focused almost exclusively on scaled-down versions of high-cost, high-risk commercial production practices which are especially inappropriate to food insecure households. WRC (2007) further claimed that such training is usually offered in institutions such as agricultural colleges which are rarely located in the deepest corners of rural areas where most smallholder farmers are found. Consequently, most rural farmers are left without access to training. Poverty and lack of basic education also play a role in determining the extent of participation in training programmes. The situation for those that can afford to visit such training institutions is further exacerbated by the fact that training usually requires trainees to be away from their homes for periods of at least two weeks, something that most farmers with families cannot afford to do.

Conflicting and unclear goals

According to Phillip (2003), cooperatives are built more on social than business goals even though in reality they operate as micro-businesses. As stated earlier, they are driven not by turnover, but by the desire to provide a service to satisfy members' requirements for affordable and quality goods or services (Mcbride, 1986; Ortmann and King, 2007). Even so, if they are to succeed as

business enterprises, they should not only have well-defined goals but goals that are also feasible. These goals are seen as more beneficial hence attracting more people to join the cooperative. On the other hand, if cooperatives keep attracting more members they may end up becoming too large or irrelevant. Some members also join with the hope of making quick financial gains and the moment these expectations are not met, such members withdraw. Another challenge is that members at times may have different opinions over certain matters and this could affect their personal relations with each other. Unless there is a clearly drafted constitution, reaching a consensus when there is tension between voting members could be a nightmare that might consequently lead to the cooperatives' downfall.

Institutional constraints

Agricultural cooperatives usually experience some institutional constraints due to their small resource base (Gordon and Goodland, 2002). Very often these cooperatives are found very far from agricultural development institutions such as agricultural extension offices, veterinary dispensaries, fertilizer depots, seed and agro-chemical stores, rural credit agencies and banks, etc. Economic institutions such as markets, marketing agencies and processing facilities are also not available. This is because investors prefer investing where there is visible development so that they can realize their returns as fast as possible. Consequently, they do not want to take the responsibility of developing rural areas with their own money. According to Adams and Fitchett (1992), lack of market facilities in rural areas where small farmer cooperatives can sell and buy at reasonable prices ensures that most profits go to the middlemen who transport the farmers' finished goods to the markets and inputs back to the farms. This not only reduces the cooperatives' net earnings but also keeps them away from producing more for the market.

All these constraints hinder and weaken the ability of cooperatives to develop the economy of South Africa. As Phillip (2003) suggested, cooperatives are a business because they sell and have to compete with other markets. The primary objective for most businesses is to produce, sell and get financial returns. Considering agricultural cooperatives from such an angle has been the main cause of conflicts within cooperatives as some members eventually become business-minded whereas cooperatives are not based on business objectives. In a capitalist economy like South Africa, pursuing business objectives is understandable but as Ortmann and King (2007) put it, one should also spare a thought that agricultural cooperatives are one of government's tools for eradicating rural poverty and food insecurity by serving very poor people who also need to depend on the food produced at the cooperative for their daily meals.

DISCUSSION AND CONCLUSIONS

Several scholars have argued over the years that the best way to fight poverty is to empower the vulnerable with the necessary skills that will make them rise up and produce for themselves. However, with all the challenges just highlighted, one cannot help but wonder how smallholder farmers, with their severe lack of almost everything required to produce and survive can be assisted. Apparently there are two schools of thought when it comes to the issue of using smallholder agriculture to promote economic development and alleviate poverty and food insecurity problems. One school advocates the promotion of the smallholder agricultural sector, whilst the other maintains that resources should be channeled towards other sectors that produce high value commodities than agriculture.

As for the South African government, it has made several attempts to advocate and support the smallholder agricultural sector as one way of dealing with poverty and food insecurity. The most notable attempt has been the creation of a platform for agricultural cooperatives though interventions such as the formulation of Cooperative Development Policy, the Cooperatives Act 14 of 2005 and the regular allocation of funds to state institutions tasked with assisting local smallholder farmers such as the Land Bank. Nonetheless, in spite of these and other interventions, the majority of small-scale farmers continue to operate in isolation against countless challenges that threaten to derail their productivity. There are also provinces that remain incredibly very poor such as the Eastern Cape and Limpopo. The majority of households in these provinces survive mostly on social grants due to the severe decline in agricultural productivity as a result of low investment and inadequate farming resources. This paper has highlighted the possibilities of empowering rural smallholder farmers through the development of agriculture by means of cooperatives, the state of agriculture can be improved leading to economic growth in South Africa.

Furthermore, some smallholder farmers that have come together and pooled their resources still remain unable to compete within the agricultural sector because their resources are still not enough. Therefore, there is a role that both the public and private sector should play to elevate the cooperatives to greater heights and become effective in poverty alleviation and fighting food insecurity. All the same, no matter how minute the individual cooperative members' contributions are, they may make a difference and give all the farmers an added advantage that they would not otherwise have when operating as individuals.

With the cooperatives seemingly so important in the nation's attempt to meet the MDG of halving poverty by 2014, it is only appropriate to conclude this paper by highlighting some of the possible interventions that could enhance the formation and performance of these farmer

organizations. Where cooperatives are already in existence, they should be regularly monitored and their performance assessed. This will help identify any problems long before they multiply and affect the smooth performance of the cooperatives. This could be done through public servants such as extension officers. But to reduce the burden on government, the private sector together with the commercial farmers could also be encouraged to adopt some of these cooperatives through various incentives such as tax reductions for everyone that supports at least one cooperative. Such support could be in the form of providing training, information, funding, marketing assistance, etc.

In as much as the government can hope to use agricultural cooperatives for poverty alleviation and achieving food security in the nation, it should be acknowledged that these farmer organizations are formed by members whose main incentives are more inclined towards fulfilling their own desires to provide a service to satisfy their requirements for affordable and quality goods or services than profit. As a way of perhaps *"*killing two birds with one stone*"* by making it possible to produce enough food and also make profit at the same time, agricultural cooperatives should be encouraged to adopt high value adding activities in farming and agricultural processing of fruit and vegetables, livestock, grain, wine and so on. These activities have a high turnover rate which could just be what is needed to attract new members whilst also keeping those that are profit-minded in cooperatives. If this move towards enhanced value activities is embraced, then assistance should also be given to cooperatives so that they can access the right markets for their products. This could be done by helping them secure formal contracts established markets such as food processors, super markets, fruit and vegetable shops just to mention but a few. Having formal contracts will guarantee farmers a steady market (on condition they also deliver) with competitive rates.

Proper infrastructure is also a recommendation for the success of agricultural cooperatives. Building roads is likely to make it easier for cooperatives to bring in inputs and take out their finished products to the markets on time. Also, accessibility can enhance their chances of getting assistance from any angle as their progress can be easily monitored. Other forms of necessary infrastructure include providing adequate water bodies since any form of agriculture, be it livestock rearing or crop production, depends on water. Where necessary, electricity should be made available especially since agro-processing has already been proposed for adoption by agricultural cooperatives. This is because some agro-processing activities make use of electricity such as packaging and refrigeration of produce.

What smallholder farmers should realize is that the government has set up some structures and policies earmarked to assist those that operate as cooperatives. As such, all farmers working jointly should be encouraged to make use of these policies and structures by registering their cooperatives. This will assist the government in planning, locating and disbursing resources adequately, something which is difficult to do if the cooperatives are not registered and their numbers and location unknown. Financial institutions also prefer working with registered organizations with clear records of financial flows. In other words, not only should cooperatives register but they should be encouraged to keep records of all their day to day activities.

One of the advantages with cooperatives is that they consist of numerous members, each possibly with something unique to contribute unlike in the case of isolated farmers whose success depends solely on their individual decisions and ideas. In addition, it is easier, cheaper and more convenient for extension officers to relay information to cooperatives and also monitor their progress since they work collectively. The setting up of demonstration plots could further help in empowering cooperative members through skills transfer on proper farming techniques. To further spread the impact of cooperatives in improving the smallholder farming sector, training sessions could also be hosted by cooperatives and not agricultural colleges which tend to be isolated particularly in rural areas. Once such groups of farmers are stable, they could work as advisors to other independent smallholder farmers.

Concerning the issue of land shortage, the onus is on the government to quicken its land redistribution drive. Until that happens, smallholder farmers should be trained on farming practices that involve the intensive use of available land for maximum yields without either draining the soils of their nutrients or encouraging the growth of parasites, a problem usually associated with monoculture. For example, intercropping with marigolds (*Tagets* sp*)* in the field or home garden can reduce nematodes in the soil. Adding wood ash and mulch can improve soil fertility and friability. Planting brassicas (cabbage) with (nitrogen fixing) black bean can reduce the incidence of black bean aphids. Again planting napier grass (*Pennisetum purpureum*) around round the rim of the field and then rows of molasses grass (*Melinis minutiflora*) between rows of maize, reduces the number of stem borers in the maize and increases the number of parasitic wasps that prey on the stem borers. Such a system may increase the maize yield by up to 30% and the two grasses provide nutritious animal feed.

If the challenges facing the smallholder farming sector are addressed, then agricultural cooperatives will become one of the best instruments of accelerating the process of economic growth through enhanced production and job creation. Moreover, their success will improve the participation of women, youth and the economically active men in agriculture and in so doing reducing the problems of unemployment and food insecurity and improve rural development in South Africa. However,

dealing with these challenges is not going to be an overnight miracle. In fact, collaborative efforts from various stakeholders from both the private and public sectors are needed. Furthermore, the intervention of these two sectors should go beyond the issue of focusing on resource constraints faced by smallholder farmers and consider skills transfer as well through capacity building initiatives. This is because in as much as the farmers need resources, there is overwhelming evidence that the majority of them also require training in how to utilize these resources efficiently should they acquire them.

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