

Prospects and Performance of Warehouse Receipt System in Babati District, Manyara Region, Tanzania

LUKA S. NJAU & MATHEW M. DIYAMETT

Moshi Co-operative University, Tanzania

Received 17 February 2019; received in revised form 10 April 2019; accepted 27 April 2019

ABSTRACT Warehouse Receipt System (WRS) is a predominantly new innovation in Tanzania. This study assessed the prospects – including cheating on weights and measures, storage, crop prices, inadequate financing, etc – and performance of this new innovation in Babati district in Tanzania. The study adopted the case study research design. Data were collected using documents and questionnaires. Descriptive statistics and content analysis were used as a means for analyzing the data. The results indicated that, albeit the existence of some WRS operations in Babati district, no effective use is in place. First, smallholder farmers do not adequately know the whole gamut about WRS. Second, the WRS operators are yet to be empowered and certified by the Tanzania Warehousing Licensing Board. Third, the WRS operations do not have the skilled manpower to operate the business. The study concludes that the WRS has neither been adequately made known to Tanzanians nor effectively enforced and implemented. Given such facts, it is unfair to make a conclusive judgment on its performance. Massive sensitization is recommended so that farmers can effectively use the WRS. Also, the operators of the warehouses must be empowered to acquire legal recognition among other recommendations as detailed in this paper.

Keywords: Warehouse Receipt System, Warehouse Receipt System Act, Warehouse Receipt System Operators, Smallholder Farmers, Prospects, Performance

Introduction

Up to the mid-1980s, Tanzania had practiced a centrally planned economy in which the government played a leading role. The then socialist policies that were ingrained in the famous Arusha Declaration of 1967 in which socialism and self reliance were the rallying theme of the era, were constrained by many factors, among which were the international free market forces. Both internal local forces, namely economic mismanagement, underperformance, elements of corruption, non-accountability, incompetence, etc, and foreign ones including skyrocketing oil prices, declining agricultural commodity prices, the 1978/79 war with neighboring Uganda necessitated change to other strategies to rescue the economy from total collapse. Consequently, the locally improvised rescue package in the form of Economic Recovery Programmes I and II (ERPS) and the externally imposed Structural Adjustment Programmes (SAPS) by the International Monetary Fund and the World Bank were put into operation (United Republic of Tanzania-URT, 2006; Regnar *et al.*, 2002). The ERPS advocated more production/productivity for more exports largely from agriculture. The SAPS strongly advocated decontrols, deregulation, free market, devaluation of the local currency

(shilling) against the major greenbacks and privatization of parastatal/government owned business. This was closely accompanied by removal of agricultural subsidies which had hitherto sustained the monopolistic co-operatives and by extension the smallholder farmers.

With the door wide opened, private enterprises both local and foreign were allowed to do business; in our case, in matters related to agricultural commodities. The consequences vary but the outstanding include declining incomes and standard of living of smallholder farmers who from then on, were under the mercy of the global free market forces. By the nature of their trade, the free market forces particularly commercial banks do not conduct business with smallholder farmers (Madafu, 2015). As such, poverty and its inherent cousins-illiteracy, diseases, malnutrition, (especially among children) became widespread in Tanzania. Comparatively, poverty is more pronounced in rural areas where the basic needs like clean and safe water, infrastructure, energy, food, housing, proper sanitation and the like are lacking (World Bank, 2015). Summarized in a sense, the situation that obtains in rural areas is a consequence and by large due to lack of access to credit facilities that may have otherwise improved production and productivity in agriculture (URT, 2008a; Salami *et al.*, 2011; World Bank, 2013). With SAPS, co-operatives and farmer groups which were until then the life line for the smallholder farmers were rendered insolvent and squarely incompetent in the free market private capital game. Thus in 2005, the government of Tanzania came forth with the Warehouse Receipt System (WRS) as a rescue package for the smallholder farmers and for the government itself, because the bulk of the country exports-cotton, coffee, tobacco, cashew nut – are produced by smallholder farmers (URT, 2005; Andrew and Maghembe, 2011).

In May 2005, the Parliament of the United Republic of Tanzania passed a bill that became the Warehouse Receipt Act, No. 10 of 2005, which was assented by the President on 6th June 2005 (*ibid*). The move was such a myriad attempt by the country's leadership towards achieving the then Millennium Development Goals (MDGs), now Sustainable Development Goals (SDGs) ostensibly to substantially reduce abject poverty among many Tanzanians particularly those whose livelihoods are rural based and by extension largely agrarian. Though by no means a totally new innovation, the WRS attempt was bound to face challenges of acceptance on its arduous road to impact on denting poverty among the small rural commodity producers who have of necessity become part and parcel of the global economic reality of the 21st Century. Mmari and Nyagango (2015) revealed that, the operation of the WRS in other parts of the country particularly on cashew crop was faced by numerous challenges including lack of clear understanding of the programme by farmers, political interference in its operation and too many taxes charged on crops sold through the WRS. It was also faced with lack of efficient weighing and scale standards including moisture content measuring apparatus and the contradiction between the WRS Act of 2005 and the Co-operative Societies Act of 2013, especially on loan/credit acquisition requirements and guarantee.

On the Acts contradiction, it was found that, while the WRS Act allows the crop depositor mainly agricultural marketing co-operatives to acquire loans from financial providers of up to the tune of the value of the crop stored, the Co-operative Societies Act stipulated that, agricultural marketing co-operative societies are only legible to acquire loans from financial providers after the approval of the co-operatives Registrar. The Registrar therefore has the mandate to set the loan ceiling for the co-operative society regardless of the value of the crop stored under WRS arrangement than can be used as loan collateral. Coulter and Shepherd (1995) emphasized that

WRS can play an essential role in agricultural marketing if they are backed by provisions that enhance their value as collateral. Despite such contradiction, the WRS Act in Tanzania provided basis and a legal framework upon which smallholder farmers and petty traders could access loan facilities from commercial banks (ANSAF, 2013; Mtanda, 2015) that had traditionally distanced themselves from conducting business with this largest category of the nation, constantly struggling mass. This study assessed the prospects and performance of the WRS and critiques its operation in Tanzania. It reflects whether the “Warehouse Receipt System provisions” in Tanzania provide the smallholder farmers with expected prospects. It also highlights on the performance of the WRS in the study area and provide recommendations on areas for improvement. As such, since WRS in Tanzania is a comparatively new innovation, the study was limited to only conventional warehousing.

Methodology

This study is both exploratory and explanatory: it is exploratory in that it examines something new and explanatory, because it explains what is going on. The study was conducted in Babati district, Manyara Region, Tanzania. The study area was chosen because it is one of the districts implementing the WRS in the country. The study involved 5 villages (Magugu, Gendi, Galapo, Qash and Meqbami) producing maize, cotton and paddy from which 150 study participants were selected for interviews. Having employed the case study approach (i.e. multiple case studies), the number of study participants selected was based on the information saturation attainment than actual number of study population of a given study area/village (Taylor *et al.*, 2011; Yin, 2014). Thus, 80 maize farmers, 35 cotton farmers and 35 paddy farmers were involved in the study. Likewise, 20 key informants were purposively selected for the study. Maize farmers were many compared to farmers producing other crops (cotton and paddy) because all five study villages produce maize while paddy and cotton are produced only at Magugu and Oridoy villages, respectively.

Focus group discussions (FGDs) comprised of seven to ten participants each with maize, cotton and paddy farmers were conducted forming the basis for data collection from the depositors. A total of two FGDs were conducted in each study village. The number of focus groups depend on the amount of facts needed (McDougall and Fudge, 2001). Most studies use at least two groups, and few uses more than four groups (Stewart *et al.*, 2007). Key informants from different organizations, agricultural departments at regional and district level and smallholder traders were also the major source of information. Secondary data was collected from the district agricultural department and other organizations including Food and Agricultural Research Management in Africa (FARM Africa), Friends in Development (FIDE), FAIDA Markets Link (FAIDA MaLi) and *Mtandao wa Vikundi vya Wakulima Tanzania* (MVIWATA) that work with farmers in facilitating agricultural development in the district. Data were verified, compiled, coded and summarized prior to analysis. Descriptive statistics were generated from such data. Content analysis was also used to analyze the qualitative data. The analysis involved scouring for meanings, patterns, surprises and contradictions in the textual data guided by research questions. Data were then analyzed in three stages including, firstly, data reduction i.e. screening, coding, condensing and transforming empirical data. The purpose of data reduction was to ensure that data can speak authentically. Secondly, data display was done involving reduced texts and thirdly research conclusion was drawn (Taylor *et al.*, 2011). Finally, the case studies set in form of qualitative interpretations and descriptions were documented.

Results and Discussion

WRS situation in Babati District

The interviews conducted to different key study participants provide the ambience for WRS operations in Babati district. The general impression is that the regional authority especially the regional agriculture office or department, plays a role of coordination in agricultural activities from the technical angle point of view. Its role generally, though not limited to, includes policy issues such as to receive and transmit directives from the ministry headquarters to the local government councils, coordinate agro-campaigns as well as acting as the regional think tank on matters related to agriculture. Other roles are overseeing various district agricultural development plans through the Agricultural Sector Development Programme (ASDP) operated through both government and donor support. It also oversees the construction of dams, reservoirs, market structures, irrigation structures (engineering) and normally liaison with other agricultural stakeholders that include: FARM Africa, FIDE, Private sector, MVIWATA, Minjingu fertilizers company, seed companies like Krishna seed company, FAIDA MaLi, the Tanganyika farmers association (suppliers of farm inputs) and *Wakulima wa Bonde la Kiru*- the seed companies who operate Open Pollinated Varieties (RCO, 2016).

The activities of the agriculture department at the regional level are just advisory and facilitation of production. According to the Regional Agriculture Officer, the warehousing matters fall outside their area of jurisdiction, since warehousing has much to do with storage and marketing of farmers' produce. Since the WRS is a relatively new approach in storage and marketing facilitation of farmers' crops in the country/region, it is not well positioned in this endeavour (RCO, 2016). While the regional agriculture office is largely limited to advisory services on technical matters in agriculture, generally the district works closely with the farmers because it has substantial number of manpower who visits farmers on matters of policies, regulation, advisory and extension education. Nevertheless, none of the district officers were directly attached to the WRS coordination.

Crops falling under the WRS in Babati district

Crops that fall under the WRS in Babati district include cotton, maize and paddy. The adoption of maize, which is the major food and cash crop in the district, in the warehousing systems by majority of the farmers is very small because it was reported to have a ready market. At the time this study was conducted, sesame and pigeon peas were in the process of being included in the WRS.

WRS Operation in Babati District

The primary objective of the WRS is to liberate smallholder farmers, i.e. curtailing cheating on weights and measures, facilitating access to finances, moderating seasonal price variability, etc. For the WRS to function as intended, the required human, material and financial resources should be in place. This is an area in which the critical components for success come in-the government, financial institutions, training organizations, crop boards, revenue bodies, weighing and measurement agency, etc as specified in the operational manual of WRS in Tanzania (URT, 2008b). The manual clearly provides that the WRS through the Tanzania Warehousing Licensing Board (TWLB) had to work with other regulatory boards whose ... "specific law gives them specific mandate to regulate specific activities of which without it, the warehouse receipt development could be difficult to implement" (URT, 2013; Tesha, 2000).

In theory and in practice, therefore, banks should provide finance and the government should provide policy framework. Likewise, other regulatory bodies like Tanzania Revenue Authority (TRA), Tanzania Food and Drugs Authority (TFDA), Tropical Pesticides Research Institute (TPRI), Tanzania Bureau of Standards (TBS) and crop boards should play their rightful roles as provided for by their respective Acts to serve the farmer. What is on the ground, however, seems to be far from practical because the function of these organs have not yet been properly synchronized or are invariably not operationalized. Few examples may represent the rest. This study established that, the Agricultural Marketing Co-operative Societies (AMCOS) have not been empowered by TWLB to operate in the area; loan approval (National Micro-finance Bank) cannot be facilitated from its regional branch (NMB, 2006); experts in WRS operation are nowhere in place and the public is yet to be sensitized. On sensitization, the findings show that 52 percent of interviewed smallholder farmers do not participate in the use of warehouse facilities while nearly a quarter (23.3 percent) of them knows nothing about the WRS. Likewise, none of the interviewees has ever attended trainings on WRS. All these general observations/findings and others imply that the WRS operations are yet to function and deliver, in order, for Tanzania to meet among others, the SDGs.

Smallholder Farmers' Views on Prospects and Performance of WRS

Interviewee's responses on their prospects on WRS in the study area were established. It was found that about 52 percent of interviewees were uncertain about WRS prospects. This category of interviewees had shied away from WRS services at the time this study was conducted indicating discomfort with the general procedures (storage charges, low crop price offered, unclear and bureaucratic payment mode, etc) of the programme. The findings are in line with those of ANSAF (2013) and Mmari and Nyagango (2015) who established similar challenges to farmers engaging in WRS on cashew subsector. The other 23.3 percent of the interviewees indicated that they had no any prospect on WRS since they know nothing about the programme, while, 24.7 percent had some positive prospects regarding the programme indicating that it will benefit them once it is effectively implemented (Table 1 below).

This study established that most of the WRS activities were not effectively carried out in the study area. For the warehouses to be operational, some formalities should be in place, interalia: the existence of the certified and licensed warehouse facility, an authorized warehouse operator, sufficient capital, expertise in warehousing and quality and volume of produce to warrant commercial operations of the warehouse. All these aspects were missing. The study also established that most of the WRS operators have not been licensed, have not acquired statutory books and receipts, and they lack sound capital base to operate warehouses. All these shortcomings have contributed to inefficiencies in the WRS operations and, hence, smallholder farmers' reservations on the programme's prospects. Contrary to what is on paper, the WRS Act and regulations require such conditions to be strictly adhered to (URT, 2005; URT, 2016).

Table 1: Interviewees prospects on WRS

WRS prospects	Frequency	Percentage
Uncertain	78	52.0
No prospect (know nothing)	35	23.3
Positive prospect	37	24.7
Total	150	100

Performance of the WRS in Babati District, Tanzania

Warehouse operation in co-operative societies in Babati district

There are a number of co-operative societies engaging in WRS in the study area. The main focus is on maize crop which is at Gendi AMCOS in Gendi village and to a lesser extent, paddy in which Mshikamano Savings and Credit Co-operative Society (Mshikamano SACCOS) at Magugu village is making an entry. Oridoy AMCOS is involved in cotton collection, storage and marketing. The Oridoy AMCOS in Oridoy village has in fact been in operation along the WRS lines since 1996 and had been effectively operating from 2003/04 when it borrowed Tshs 220,000,000/= (equivalent to USD 98,654 at exchange rate of Tshs 2,230 per 1 USD by the time this study was conducted) and managed to purchase cotton amounting to 782,992 kilograms. In 2005/06 season, it borrowed another Tshs 390,000,000/= from CRDB bank and collected 1,200,000 kilograms of cotton. Others are Meqbami SACCOS making an entry on maize crop and Mbugwe sesame AMCOS making an entry on sesame.

Gendi Agricultural Marketing Co-operative Society (Gendi AMCOS)

The Gendi AMCOS has been operating from the 1960s. It deals with collection, storage and marketing of various agriculture products, mainly, maize, beans, and pigeon peas. Currently, it operates two godowns. With the advent of WRS operations its old warehouse (godown) was renovated through a Tshs 10,000,000/= funding from the Agricultural Marketing Sector fund. A new bigger one which can store 4,000 bags (4 tons) was added in 2009 through a Tshs 74,000,000/= from the same source. The new one is owned by the Babati Town Council. Until 2010, the farmers used to deposit their produce at AMCOS without proper receipting of goods. From 2010, the AMCOS started to implement the WRS operation and bought 900 bags of maize from farmers at Tshs 27,000/= to 35,000/= per bag, mainly facilitated through a Tshs 68,000,000/= from the National Microfinance Bank (NMB). The following season, the exercise was discontinued because all did not go well with Tshs 68,000,000/= loan from NMB. The AMCOS faced difficulties in repaying the bank loan with interest, partly because it did not make business.

First the AMCOS had borrowed money from the bank that was more than their purchasing needs whereby Tshs 41,000,000/= remained idle until the repayment time. They had spent only Tshs 27,000,000/= during that season. The loan, however, was to be repaid with interest. Second, the AMCOS did not acquire business license from the TWLB because it did not fulfil the requirements of the TWLB in the area of employing an expert in the warehousing operations whose annual pay cost was pegged

at Tshs 50,000,000/=. The AMCOS could not have or could not raise this amount to pay the expert in warehousing. The co-operative society management admits that, the TWLB condition for the operation of warehouse is beyond their capacity. The small-holder farmers are not interested in such difficult conditions. Third, they incurred loss in repaying the bank loan, largely, because farmers produce were bought directly without deducting its operation costs from the producers (sellers).

Perhaps what happened at Gendi AMCOS is not unique. It has also faced a myriad of other challenges ranging from, interalia:

- Lack of internal source of funding, hence, turning to commercial banks for loans;
- High bank interest rate;
- Use of bank loan for purposes other than the purchasing of crops from farmers e.g. paying sitting allowance, transport cost, warehouse keeping, etc.;
- Inexperience among the co-operative society board members in the operations of warehouses;
- Inadequate financial knowledge, especially in banking and loans;
- Expensive services from the WRS operation experts; and
- Fluctuating crop production, mainly due to weather vagaries.

Oridoy Agricultural Marketing Co-operative Society (Oridoy AMCOS)

Oridoy AMCOS was established in 1996 in Babati district, Manyara Region. The AMCOS started with 20 members and membership continued to grow up to 80 members. The co-operative also works with a network of about 400 independent “non-member” cotton growers with whom it has established informal contracts. The members and non-members of Oridoy AMCOS benefit in various ways from the co-operative society, including inputs supply on credit basis, advisory services and storage facilities. The AMCOS is working to expand cotton production by encouraging farmers to increase production and making cotton production one of the important income-generating activities in the district. With the support of Rural Livelihood Development Company (RLDC) Oridoy AMCOS managed to establish a collection center operated under the WRS model. While not officially registered, this has allowed the co-operative society to access bank loans to pay the producers.

One of the biggest challenges in Oridoy AMCOS is that most of the farmers in the area are not supportive of the WRS regulations, instead, demanding for 100 percent payments on sale of cotton. With the operations of a number of private buyers in the area, the co-operative society finds itself in fierce competition to honor farmer’s demands. The AMCOS, therefore, operates on the prevailing market-based prices than on WRS principles. This is to say that WRS per se is not practiced by Oridoy AMCOS. Other challenges include fluctuating cotton price as well as high transport cost of the cotton the AMCOS collects from producers in Babati district to the only ginnery located in Moshi town in Kilimanjaro region (about 180 kilometers) and then from Moshi transporting it to an export company in Dar es Salaam city (about 800 kilometers). The ginnery, an obsolescent and dilapidated one, sometimes does not work as it runs short of spare parts and expertise. This causes farmers’ cotton to remain stocked in the warehouse in some seasons.

Mshikamano Savings and Credit Co-operative Society (SACCOS) - Magugu

The Mshikamano SACCOS in Magugu village, some 25 kilometers from Babati town is housed in a warehouse (godown) constructed through the Agricultural Marketing Sector Development Programme (AMSDP). The Mshikamano membership statistics

stand at 290. The SACCOS extends its credit mainly to paddy growers. The SACCOS does its business in a somehow unconventional procedure, partly due to the nature of its membership, where the majority of them are either paddy growers or deal with buying and selling rice. Paddy production is very demanding right from farm preparation to harvesting. Those members who need loans are normally informed by the SACCOS to prepare their financial requirement plans for two types of loans: (a) paddy farming loans which are released between December and January farming season, (b) rice purchasing loans between July and August. The borrower is given a loan in cash and payment may be made in kind (rice) or cash. The loan it provides includes those for farming (agri-business), purchasing farm equipments, WRS loans and short term or emergency loans. The general trend of loan repayment is, however, not properly executed as some members have defaulted. Also, the SACCOS is not yet effectively utilizing the services offered through WRS, largely due to, inter alia:

- Undefined ownership of the warehouse and therefore the de jure operator of the property. It was constructed by the AMSDP after the farmers requested for it. It is the property of the Babati Town Council, just like the others at Gendi and Qash villages;
- The SACCOS has no expertise in relation to warehousing requirements; Mshikamano SACCOS is yet to obtain a warehousing operating license from the TWLB; and
- Mshikamano SACCOS cannot directly deviate from its initial objective of being a micro finance institution unless some legal aspects are redressed. Its by-laws will need to be amended; something that may not be easy or justified without the consent of the annual general meeting.

Yet, this is one of those opportunities which are only available to few rural smallholder farmers. Due to such complexities coupled with what respondents' claim to be underperformance of the warehouse, this study established that a reasonable number of members (52 percent) are not using the warehouse as their storage facility. There were also concerns for some members withdrawing from using the warehouse, something that jeopardizes its operations in near future. Among the reasons for their pull out includes dissatisfaction with the price offered for the stored crop, costful deductions in terms of taxes and other levies, late and bureaucratic payments after the crop is sold and general lack of clear understanding of the WRS operation among farmers. ANSAF (2013) and Mmari and Nyagango (2015) recorded similar concerns on cashew farmers operating under WRS in Southern and Coastal regions of Tanzania.

Meqbami Savings and Credit Co-operative Society (Meqbami SACCOS)

Some 30 kilometers from Babati town to the South East there is Meqbami SACCOS in Qash village operating from an AMSDP warehouse built in the early 1980s. Meqbami SACCOS with 263 members derives its affiliates from Migungani, Endadash, Qash, Baghari and Mpakani sub-villages in Galapo division. It is interesting to note that within a distance of 4 kilometers of each other; there are three godowns in this area. The Qash warehouse has a capacity to store 4,000 bags of produce. In 2006 the Meqbami SACCOS started buying maize from farmers through a CRDB Bank loan, whereby, the SACCOS could receive the crops and pay producers 75 percent of their operating price. Due to numerous reasons, including maize price that did not increase over the CRDB loan gestation period, the SACCOS incurred loss that arose out of CRDB Bank loan interest. The farmers who received the loan had to foot the bill. Since then, farmers refused or were reluctant to utilize the services provided through the WRS.

In between 2007 and 2009, the World Food Program (WFP) intervened to improve the situation of the warehouse and the farmers by advising the Meqbami SACCOS to purchase only the quality maize from the farmers and sell it in Arusha region at higher price. Again, this also flopped because the waiting span from maize purchasing and paying farmers was too long for them. The challenge faced by Meqbami SACCOS is usually that which is common among many SACCOS – lack of internal capital to conduct meaningful business. In this area where AMCOS operations are nonexistent, it is the SACCOS that link farmers to other bodies and institutions including the National Strategic Grains Reserve, Banks, WFP and the WRS. In 2012, for example, the WFP wanted to purchase 200 tons of maize from the area by offering a price tag of Tshs 60,000/= per bag. The SACCOS asked for higher price of Tshs 80,000/= per bag, while private buyers offered Tshs 90,000/= one and half times the WFP price. Definitely, the farmers' choice/response was obvious – the WRS was largely ignored. It is likely that the three warehouses in the area– Galapo, Osongarida, and Qash may remain white elephants in an otherwise rural setting, because their combined capacity is not effectively utilized for the intended beneficiaries, i.e. smallholder farmers.

FARM Africa

The FARM Africa, a Non-Governmental Organization which had been operating in Babati district for decades, earlier in 2010 extended a working capital of Tshs 47,000,000/= to Mbugwe AMCOS with a warehouse at Ngoley village focusing on sesame crop. FARM Africa had expected that success in the utilization of that capital will provide a launching pad for more assistance. This could also have paved the way for banks to extend its loaning services to the AMCOS. Nevertheless, FARM Africa's support on the WRS programme in the village did not function as expected due to various challenges the major ones (according to FARM Africa experience and observation) being:

- Low understanding among farmers on matters related to WRS;
- Farmers' lack of trust in their AMCOS;
- AMCOS' low capacity (expertise) in warehousing; and
- Complex warehouse licensing procedures—inspection of the warehouse and certification must be done by the TWLB authority based in Dar es Salaam about 800 kilometers away. Costs were prohibitive for the AMCOS or such like clients to foot.

Financing and Education in WRS

Perhaps a more commonly critical part of the WRS is the area of finance. This is from two fronts: one, the availability of credit at the right time for the right operations. Often, credit is always in short supply. Without capital and, specifically, internally generated capital, AMCOS are condemned to perpetual dependence. Two, proper financial dispensation is lacking, and projections or estimates are not properly prepared, largely due to lack of financial managers. Thus, when for example, Gendi AMCOS requested and secured a Tshs 68,000,000/= loan from NMB in 2009, it spent only Tshs 27,000,000/=. The rest of the loan amounting to Tshs 41,000,000/= (about 60 percent) remained idle and later part of it was used for other unintended activities, offsetting running costs, pay sitting allowances and transport costs. Yet, as provident requires, the loan must be repaid with interest, which is an unnecessary burden to members. The AMCOS could be advised, even by the lending institutions, to work with overdraft and not loans per se.

Education has always been regarded as one of the primary critical factors for success in any business least not in agriculture (Regnar *et al.*, 2002; Pandula, 2011). The WRS Act was passed to herald in a new era in achieving green revolution. What came out of the study indicates that the farmers are not properly versed with the WRS operations leave alone the technical part of running a warehouse business. Mmari and Nyagango (2015) established that many farmers operating along the cashew subsector in Tanzania were not well informed on the WRS operations. The discussion with Gendi AMCOS board members revealed that they have not been provided with the ABCs of the WRS. This includes knowledge on processes required to register, equip and run a warehouse.

The AMCOS board as the legal custodian of the members' assets require knowledge and skills that are necessary for operating a warehouse. So far, however, no efforts have been made to equip the board with the required skills, for example, even those skills to translate/interpret legal matters and jargons like "warehouse operator", "warehouse owner", "buyer," etc. This is important because in the case of Gendi AMCOS, the owner of the warehouse is the Babati Town Council, the operator/buyer is the AMCOS. Thus, for example, when legal matters are at stake in areas like the commodity quality control, safety, security and compromised quality or cause for negligence the question remains, which are to blame. The board, therefore, needs to be versed in such matters to avert any damage on the interest of parties involved in the WRS business. Of vital importance that need discussion and sufficient investment is the issue of farmers' training who are to a large extent not yet well versed on the WRS operations and management (ANSAF, 2013).

WRS and the Tanzania Warehousing Licensing Board

A special mention should be made about the whole concept of the WRS and the TWLB. From both the point of view of the Act that established the WRS and what is currently taking place in this direction, there is a lot to be desired about the WRS. From few research findings, one gathers that either there is too much politicization in some cases or too little is known in other areas- Manyara region to be specific (ANSAF, 2013; Machira, 2014; Mmari and Nyagango, 2015). Findings from a research which was commissioned by BEST-AC (currently BEST Dialogue) and Tanzania Graduate Farmers Association (TGFA) in Lindi, Mtwara and (Kilombero) Morogoro regions indicate that: politicking distorts the performance of WRS because it allows inclusion of personal interests for personal gains at the expense of farmers (Mussa, 2013). If this is the case, it negates the real essence of the Act that established the WRS. The WRS was meant to help the farmers. It curtails cheating on weights and measures, facilitate access to finances in the market chain, moderates seasonal price variability and promote instruments to mitigate price risks. The WRS is meant to reduce the government's involvement in price intervention for agricultural products. It is an arrangement that solves problems: alleviate storage bottlenecks and facilitate credit availability. It is meant to increase agricultural production, availability of good quality agro-products (including cash and food crops) and access to financial services (URT, 2005; Mtanda, 2015).

Theoretically, the WRS should facilitate the smooth production, storage and marketing of farmers produce. However, the reality on the ground shows that most farmers and other stakeholders and the public are still not familiar with how the WRS works. The WRS and the TWLB seem to be detached from the very people it was meant to serve. TWLB, for example, does not have the regional or district offices to

serve its clientele. In Manyara region the issuing of the warehouse operating license has been a critical area of concern among the four surveyed godowns at Gendi, Magugu, Qash and Galapo villages. It is likely the situation will remain so because it seems there is no proper coordination in the process of implementing the WRS operations.

Study Limitations

The findings of this study have to be seen in light of some limitations. The first is the study covered one district only from among other districts in Tanzania implementing the WRS. A more inclusive study is advised to ascertain how other districts are performing including drawing some comparative analysis on the same. The second limitation concerns the type of research design used i.e. case study research design. The case study has long been stereotyped as a weak sibling among social science methods. Case studies have continued to be denigrated as having insufficient precision (i.e. quantification), objectivity or rigor (Yin, 2003). To address this weakness multiple case studies approach was applied. Multiple cases increase the methodological rigor by strengthening the precision, the validity and reliability of findings (Miles and Huberman, 1994) making it more compelling (Yin, 1994). It also ensures generalization of the findings i.e. analytic generalization as opposed to statistical generalization. The third limitation is that WRS is still a new innovation in Tanzania and thus not much domestic literature is available on the same. This weakness, however, was addressed by ensuring triangulation of data collection techniques to enable gathering of sufficient facts from in-depth discussions, interviews and analysis of the subject matter under study using several categories of the study participants. Thus, few available literatures added to the methodically collected primary data.

Conclusions

Some conclusions can be made from this survey on the prospects and performance of the WRS operations in Babati district. The system has not been adequately made known to the public and as such it is unfair to make conclusive judgment on its performance. What has been revealed from the interviewees, is that all critical focal points: the government, financial institutions, the TWLB, WRS operators and depositors have yet to come together to establish a common ground from which they can launch the proper execution of the WRS. All the presumed major players in the WRS are yet to show tangible results in their respective spheres of responsibility and competence. This conclusion is justified from the researchers' point of view because more than a decade (14 years) since the WRS Act was passed, there is very little, if anything, to show, inter alia:

Firstly, the education on after harvest losses, availability of credit to small-holder farmers using their produce as collateral, increased quantity, poverty reduction, fair price and improved income of farmers. Secondly, (though this needs further study), there is no synchronized strategic plan in place for the execution of the WRS. On paper, the government has provided what should be done at the national, regional, district, ward and village level. However, from the field findings, what is on the paper is not what is obtained in the field. Thirdly, education and training for farmers has not featured accordingly. Fourthly, some warehouse structures are in place, especially the godowns at various locations in the district. However, for them to be operational, they need to be up to the standards required by the TWLB and duly inspected and certified

by the same. But because these warehouses are invariably owned, no one has taken the initiative to bring them to the required working conditions and up to operational standard. In most cases, the rightful operators of these structures are not adequately constituted, especially in expertise to operate the warehouses.

Finally, given the challenges currently hindering effective implementation of the WRS in Tanzania and as the programme is yet to be implemented in many parts of the country, majority of its prospective beneficiaries are not aware of it. This is likely to have a negative implication on government farming policy toward smallholder farmers' agriculture improvement and general crops production, storage, pricing and marketing strategies. Thus, as majority of smallholder farmers are not yet reached by the programme, they are subsequently not able to reap the benefits that are anticipated to be arising from effective implementation of the WRS.

Recommendations

Based on the foregoing observations in section 4.0 this study recommends that, the government should translate into action what is on paper, especially at the district, ward and farmer's levels. This should go hand in hand with ensuring that financial institutions prepare farmer friendly credit packages (ref. timing, interest rates, etc). Likewise, provision of comprehensive and sustainable education and training to smallholder farmers and their AMCOS/SACCOS executives/board members by all the key stakeholders interested in improvement of smallholder farmers socio-economic status through WRS is also recommended.

The education and training should focus on the benefits of WRS over other storage and marketing systems, the challenges hindering the implementation of the WRS, the roles and responsibilities of various stakeholders, crops quality assurance, value additions, the power of collective marketing, innovation and entrepreneurship skills, etc. Moreover, the publicity of the WRS country wide and training and placement of WRS experts is recommended. To achieve this, the government should be determined at allocating and utilizing sufficient resources mainly financing to enable sharing of the best practices emanating from the WRS to the wider community in other parts of the country as well as in facilitating availability of WRS experts and other facilities. Similarly, resources should be allocated to address the various challenges hindering effective implementation of WRS in the study area and the country at large. It is also recommended that the warehouses should be equipped with working and security equipment (weighing and measurement scales, books, internal structures, fire extinguishers, security materials, moisture control equipment, etc).

Furthermore, it is recommended that the current WRS Act should be reviewed to make it more operational and practical. Here the authorities and or boards as contained in the WRS Act who are supposed to facilitate the WRS operations must genuinely be capacitated to play their respective roles. To attain this, clear mechanisms should be set by the government in collaboration with other key stakeholders to ensure a more comprehensive and inclusive WRS Act that will ensure what is documented on papers is suitably put into practice.

Finally, in the order of importance, the challenges identified as currently hindering effective implementation of the WRS in the study area should be genuinely and collaboratively be addressed by all key stakeholders. The stakeholders e.g. the government, financial institutions, private sector, depositors, operators, TWLB, and others have the role to play in ensuring effective implementation of the WRS, therefore, their collaborative efforts and strategies (currently missing) in redressing such challenges

are crucial. Collaborative efforts are important in ensuring maximum utilization of the scarce resources such as financing, personnel, technologies, physical facilities and others. It may also increase competitive advantage in terms of cost and time saving, marketing strategies sharing, expertise sharing, and risk minimization, among other benefits.

Acknowledgement

The authors wish to extend their heartfelt gratitude to the Moshi Co-operative University for financing this study through its small-scale research funding scheme.

Statement of No Conflict of Interest

The authors of this paper wish to declare that there are no competing interests in the publication of this article.

Correspondence

Luka S.Njau
Department of Community and Rural Development
Moshi Co-operative University (MoCU)
P.O. Box 474, Moshi
Tanzania
Tel: + 255 754335940
Email: lukasnjau@yahoo.co.uk

References

- Andrew, C. and Maghembe, J. A. (2011). *Commodity Financing: Global Commodity Forum*. Geneva, Switzerland.
- Agricultural Non-State Actors Forum (ANSAF) (2013). Advocating for effective regulation for cashew nut industry in Tanzania. Policy Brief. Dar es Salaam.
- Coulter, J., and Shepherd, A. (1995). Inventory Credit: An Approach to Developing Agricultural Markets. FAO agricultural services bulletin 120 [<http://www.inventory/credit/agric>] retrieved on 16th September 2016.
- MacDougall, C. and Fudge, E. (2001). Planning and recruiting the sample for focus groups and in-depth interviews. *Qualitative Health Research* 11: 117-126.
- Machira, P. (2014). Low prices worry cashew farmers. *The Citizen*, 18.10. 2014. p.1-2.
- Madafu, G. (2015). Access to bank credit by smallholder farmers in Tanzania: Challenges, opportunities and prospects. Msc Dissertation, Mzumbe University.
- Mussa, J. (2013). Politicking distorts the performance of warehouse receipt system. *The Citizen on Sunday, September 2*, p. 7.
- Mmari, G. and Nyagango, A. (2015). Improvement of performance of agricultural markets: Experience from warehouse receipt system. A paper presented at the co-operative research workshop, Moshi Co-operative University (MoCU), 24th March, 2015.
- Mtanda, A. (2015). Farmers' attitudes towards warehouse receipt system in Newala District, Tanzania. MA Rural Development Dissertation, Sokoine University of Agriculture.
- Miles, G. and Huberman, A. (1994). *Qualitative Data Analysis: An Expanded Source Book*. Sage, London.
- National Microfinance Bank (NMB) (2006). *Financing crops commodities under WRS: NMB yearly report*. Dar es Salaam.
- Pandula, G. 2011. An empirical investigation of small and medium enterprises access to bank finance: The case of an emerging economy. *Proceedings of ASBBS*, 18 (1): 255-273.
- Regional Commissioner's Office (RCO) (2016). *Regional secretariat strategic plan 2013-2016*. Babati, Manyara.
- Regnar, O., Borchgrerink, A., Lazaro, E. and Temu, A. (2002). *Poverty-reducing effects of agricultural development in Tanzania*. Noragric report number 10, December, 2002. Noragric Agricultural University of Norway. Retrieved from [<http://www.nln.noragric.html>.] site visited on 2nd June 2018.

- Salami, A., Kabyemera, J. and John, J. (2011). *Smallholder agriculture in Africa's changing economy: Case studies*. Development Research Brief No. 3, AfDB. 4pp.
- Stewart, D. W., Shamdasani, P. N., and Rook, D. W. (2007). *Focus Groups: Theory and Practice* (2nd ed.). Thousand Oaks, CA: Sage. 200pp.
- Tesha, C.P. (2000). *Warehouse management manual*, Government Printer, Dar es Salaam.
- Taylor, B., Sinha, G. and Ghoshal, T. (2011). *Research Methodology: A Guide for Researchers in Management and Social Sciences*. PHI Learning Private, New Delhi.
- URT, (2016). New warehouse receipt system regulations. Government Printer, Dar es Salaam.
- URT, (2013). Warehouse receipt system regulatory boards: *Tanzania warehousing licensing board operational manual*, Government Printer, Dar es Salaam, pp.1-11.
- URT, (2008a). Small farmer productivity through increased access to draught power opportunities: Stakeholders mapping in Morogoro region. A consultancy report. MOVEK Development solutions.
- URT, (2008b). *Draft operational manual for warehouse receipts system in Tanzania*, Government Printer, Dar es Salaam.
- URT, (2005). *Warehouse receipt system Act*, Government Printer, Dar es Salaam.
- URT, (2006). *The warehouse receipt system regulations*. Government Printer, Dar es Salaam.
- World Bank, (2013). Growing Africa: Unlocking the potential for agribusiness [<http://siteresource.worldbank.org/INTAFRICA/resources/Africa>] site visited on 10th September 2018.
- World Bank, (2015). Global monitoring report: Ending poverty and sharing prosperity, the World Bank, Washington DC.
- Yin, R. K. (1994). *Case Study Research: Design and Methods*. Sage Beverly Hills, CA.
- Yin, R. K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage.
- Yin, R. K. (2014). *Case Study Research Design and Methods*, 5th edition. Thousand Oaks, CA: Sage.