

# **ENHANCING RURAL LIVELIHOOD IN TANZANIA THROUGH IMPROVEMENT OF PERFORMANCE OF AGRICULTURAL CROPS MARKETING: EXPERIENCE FROM WAREHOUSE RECEIPT SYSTEM**

**By**  
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## **Abstract**

*Implementation of the Warehouse Receipt System (WRS) in Tanzania started as a pilot project in the year 2000 with aim of addressing problems which were created by the introduction of trade liberalisation in crop marketing. Most of the studies which were conducted in the area investigated the importance and challenges of the systems in the country. However, little effort has been addressed in assessing performance of the system. The aim of this study, therefore, was to fill this knowledge gap by assessing performance of the system with special emphasis to rural livelihood.*

*The study was carried out in Lindi, Mtwara and Kilimanjaro Regions and it adopted a case study design. Data for the study were collected by using documentary evidences. Both qualitative and descriptive statistics were employed in analysing data. Findings show that performance of the WRS in the country is influenced by availability of market information among all stakeholders; trustworthiness and reliability of actors in the system; existence of legal framework and conducive economic environment; and distribution of marketing benefits from agricultural crops.*

*Achievements of the system in the country include: successful collection of all crops within the season; a steady increase of farm gate prices; crops sold according to their grades and quantities; and reduction of cash and crop losses.*

*Despite the above mentioned achievements, the WRS has been facing the following challenges: political interference by political leaders; competition between WRS and big private buyers who used to benefit from the unregulated system; contradictions between some sections of the WRS Act of 2005 and those of the Co-operative Societies Act of 2013; too many levies are imposed on crop which is sold through the WRS; and lack of established percentage of shrinkage in cashew nuts.*

*Conclusions show that the WRS have the following advantages to farmers: creation of secured collateral from financial institutions; smoothening and stabilising prices of agricultural crops throughout the year. Under trade*

*liberalisation in crop marketing it was observed that: farmers lacked the necessary marketing information; and there was unfair distribution of profits from agricultural crops between producers and buyers.*

*Challenges of the WRS in the country include contradiction of sections between the two legal documents that are supposed to guide operations of the system; and plethora of taxes imposed on prices of agricultural crops sold through the WRS.*

*The following recommendations were made from the study: producers of crops are encouraged to join the WRS; stakeholders of the system are urged to propagate importance of the WRS through seminars and workshops; government is advised to prepare simple Swahili versions of the legal documents that guide operations of the WRS in the country; and representatives of farmers and government are advised to form a team which will review and reduce unnecessary taxes and levies imposed on prices of crops sold through WRS.*

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**Key words:** warehouse receipt system, agricultural crops marketing, rural primary co-operative societies, farmers, financial institutions

## **1. Introduction**

Warehouse Receipt (WR) which is also referred to as a warrant is a document that is issued by warehouse operators as evidence that specifies commodity of stated quantity and quality has been deposited at particular location by a certain depositor (Coulter and Onumah, 2002). According to Coulter and Shepherd (1995), WR refers to as Inventory Credit and Rural Inventory Credit Scheme respectively. This study subscribes to the definition of a WR by Coulter and Onumah (2002). The receipt further states the specific characteristics of the goods or commodities stored in a specific warehouse for a specific amount of fee. According to Coulter and Shepherd (1995), WRs can play an essential role in agricultural marketing if they are backed by provisions that enhance their value as collateral. For example, they can be traded, sold, swapped, or used for delivery against a derivative instrument, such as a future contract. The overall efficiency of agricultural markets is thus greatly enhanced by the ability to convert agricultural products into such tradable devices.

A Warehouse Receipt System (WRS) can: improve farm income and smooth domestic prices by providing an instrument to farmers for spreading sales throughout the crop year; mobilise credit to agriculture by creating secure collateral for banks; help to create cash and forward markets and thus enhance price discovery and competition. The system can provide a way of gradually reducing the role of government in agricultural commercialisation; and combine with price hedging instruments to predetermine the cost of future purchases of sales.

Globally, WRS as a way of overcoming cereal market financing constraints is not a new concept. Grain warehouse receipts were used for the first time in Mesopotamia in 2400 BC (Budd, 2001). Archaeological evidence shows that WRS were also practiced in Ancient Rome (Coulter and Shepherd, 1995). The WRS has a long history in industrial countries but a relatively short one in transition countries and even a shorter one in developing countries especially the Sub-Saharan African (SSA) countries (Coulter and Shepherd, 1995). The system has been widely used in the Latin America and in some Asian countries (Coulter and Shepherd, 1995). Port warehousing companies and freight forwarders have for long been involved in a relatively simple system, typically found in African countries, under which they offer warehousing services without any regulatory authority oversight.

### ***1.1 Evolution of the WRS in African countries***

In Africa, the system started to be applied after trade liberalisation in agricultural marketing which started in early 1980s. The exclusion of Marketing Boards and Co-operatives from crop markets due to liberalisation bred, among others, market financing problems to both farmers and private traders. Lack of

sufficient capital for traders to hold stock caused a wide price variation in some cereals. The system was introduced in Mali in 1987 and 1988 for the purpose of assisting both farmers and traders in the procurement and seasonal storage of grains. An NGO known as TechnoServe introduced the system in Ghana in 1988 targeting farmers through co-operatives (Coulter and Onumah, 2002; Coulter and Shepherd, 1995). Other countries in Africa which have been practicing the system include Zimbabwe, Uganda, Zambia and South Africa (CFC, 2006a, b).

### ***1.2 Evolution of the WRS in Tanzania***

In Tanzania, the WRS was adopted as a pilot project under sponsorship of the Common Fund for Commodities (CFC) in 2000. The CFC whose headquarter was in The Netherlands, collaborated with the government of Tanzania through the Ministry of Industry, Trade and Marketing (MITM) in implementing the system (Cassian, 2009). Other stakeholders of the system were financial organisations, agro-processing firms, private companies, and Cotton and Coffee Marketing Boards.

Coffee and cotton were the first export crops to be included in the scheme while maize and paddy were the first cereal or food crops to be covered in the pilot project (CFC, 2006 a). During the pilot project, 45 Rural Primary Co-operative Societies (RPCs) which were dealing with marketing of agricultural crops, one Union and five private companies were being financed against deposited stocks of coffee and cotton. In addition, the system involved several maize and paddy farmers in Mbeya, Ruvuma, Rukwa, Manyara, and Kilimanjaro Regions.

In 2005, the system was officially recognised by the government through the enactment of the Warehouse Receipts Act No. 10 of 2005 which was followed by the Warehouse Regulations in 2006. In 2007/08 season, the system was imposed in Mtwara Region by the government. It was the first time the system covered the whole Region embracing more than one hundred RPCs and two Cooperative Unions. Since cashew nuts are the life wire of most of coast regions particularly Mtwara and Lindi, it is important to know if the system has managed to yield the desired fruits, i.e. ending farmers exploitation by traders who aimed at making super profits.

## **2. Practices of agricultural marketing in African countries after trade liberalisation**

Agriculture is the backbone of most African countries whereby the majority of their people live in the rural areas where they cultivate both food and cash crops. Production of agricultural crops in most of these countries is predominantly done by smallholders, and is largely dependent on rain-fed. In

addition, there is very marginal use of productivity enhancing inputs like fertilisers and, consequently, yields are low and highly variable from one year to another (Badiane *et al.*, 1997). Before trade liberalisation in agricultural crops, their marketing in most of these countries was done through monopolistic cooperative societies. However, majority of these countries particularly the SSA liberalised marketing of agricultural crops in the 1980s.

The reforms in most of the African countries proceeded under the pressure from donor countries (Coulter and Onumah, 2002). Therefore, they lacked full commitment of key policymakers who had feared about the impact of liberalisation and elimination of subsidies on access to food by low-income households (Jayne and Argwings-Kodhek, 1997). This is because of the concern about the capacity of the weak private trade sector which could fill the gap left by down-scaling public marketing bodies. After these liberalisations, pervasive government interferences and interventions in supply of farm inputs, provision of agricultural credit and produce marketing systems were greatly reduced and the scope for private sector provision of agricultural services increased (Coulter and Onumah, 2002).

Unfortunately, there were no strong institutions which were established to supervise marketing of agricultural crops so that all stakeholders could benefit from the system. Lack of proper supervision on marketing of farmers' crop resulted in real decline in producer prices and, as a result, the reforms failed to produce significant increase in per capita food production (Akiyama *et al.*, 2001). This is the reason which prompted the establishment of WRS in different parts of African countries and particularly the SSA in order to fill the gap left by the governments.

Several studies (Garcia, 2006; CFC, 2006a, b; URT, 2003a; Mukwenda, 2003; Coulter and Onumah, 2002; Coulter and Shepherd, 1995; Hill and Bender, 1995) have explained the importance of WRS in agricultural marketing particularly in developing countries. Agricultural products supply is elastic whereas their demand is almost inelastic. This implies that their supply becomes high during the production time which results in lowering prices and, consequently, lower producers' incomes. In turn, during off-seasons their supplies fall thereby raising prices and create difficulty in the side of the farmers. WRS helps to stabilise their supply and prices thereby benefiting both producers and consumers.

Crop marketing season for most of the crops in Tanzania are often short and last for about three to six months. In Mtwara and Lindi Regions, for example, cashew nuts market kicks off in October and ends in February (Hanlon, 2000). During this period, a large amount of capital is required to finance marketing functions. This demand for finance creates difficulties to companies and processors with low capital base and without acceptable collaterals to

outsource it. The WRS meets the credit need of traders and processors bringing finance down to the level of farmers.

Compared with a simple bill of sale, which gives title to commodities to the credit providing institutions, the use of WRS implies that the commodities are no longer in the possession of the borrower and therefore that the lender can have easy and fast recourse to the stored goods in case of default. Adoption of WRS calls for existence of approved quality inspectors and controllers. Thus, the system improves the quality of the produce both for domestic and export market. Previous other studies (Pangisa, 2008; Itika and Kuzilwa, 2001; Chachage and Nyonni, 2001; and Gibbon, 1999) on export crop market liberalisation have shown that lack of quality control was among the negative effects of crop market openness damaging the country's reputation in the world market. In order to increase quality of agricultural crops, and hence boost earnings to farmers in the rural areas, African countries need to establish WRS in their countries.

### **3. Factors influencing performance of WRS in Tanzania**

As explained in section 1.2 above, the WRS was implemented in the country for the first time in the year 2000 as a pilot project. Later on, the system was expanded to other places of the country. Today, the system has been operating in the country for fifteen years. During that period, farmers from different places growing different crops experienced several achievements and challenges. The following section explains most of the important factors that either affects the system positively or negatively.

#### **3.1 Availability of Market Information among Stakeholders**

In agricultural marketing, information is one of the major factors that facilitate performance of crop markets. Other factors include risk shifting, financing and standardisation (Hill and Bender, 1995). Availability of relevant and reliable market information to a given actor gives him/her a competitive advantage over other competitors who operate without the information (Mdoe *at al.*, 2001). Under crop market liberalisation, smallholder farmers in Tanzania lack the necessary market information in comparison to traders.

In most parts of the country, some traders or their agents cheat uninformed farmers on market conditions of the crop in question (McCristal 2007; Itika and Kuzilwa 2001). For example, Chachage and Nyonni (2001) reported that in Mtwara Region, traders were exploiting farmers' ignorance on prices by making false promises. According to Davron and Ponte (2005), transparency is required both for farmers as well as for buyers. In WRS, market information is critical to lenders (to facilitate valuation of stocks) and traders for the purpose of enabling them to make informed decisions on the sale of their stock (URT, 2003a).

Furthermore, Warehouse operators are obliged to furnish financial organisations with information on quantity and quality of produce deposited in their warehouses (CFC, 2006a).

### **3.2 *Trustworthiness and Reliability of Actors in the WRS***

The success of WRS depends on trustworthiness and reliability among key actors especially in relation to quality and quantity (URT, 2003a). For agricultural crops, quality relies on proper grading while quantity is a function of proper weighing. Several previous studies (Gibbon, 1999; Ellis, 1988; Msambichaka *et al.*, 1983; Kriesel *et al.*, 1970) in the area found that both Co-operative Unions and Crop Boards were dishonest and practiced several other malpractices which turned up to be a burden to producers in the country. This, on the other hand, reduced farmers' confidence on them (URT, 2006; Maliyamkono and Mason, 2006). Even before liberalisation of crop market, Co-operatives and Marketing Boards activities were not transparent. For example, according to the report released by the World Bank (1994), Co-operative unions and crop boards used to negotiate prices of export crops with buyers from abroad on behalf of producers but the contracts which were entered between the two organisations and the buyers were not made open to producers who owned the crops.

Inadequate transparency which surrounded such negotiations and contracts gave room to some dishonesty employees to cheat by under invoicing prices of crops and also overstating the costs of these negotiations and contracts. In addition, it was also found that these organisations sometimes delayed payment to farmers willingly on false argument that the buyers in importing country had not settled the amount due to them as per contract. These acts deprived farmers from getting fair benefits of the world market for their crops.

### **3.3 *Legal Framework and Economic Environment***

Efficiency of marketing operations depends very much on market institutions (Rweyemamu and Kimaro, 2006). Even the 1981 World Bank Report, which recommended liberalisation of agricultural markets in the country, charged the government with the duty of establishing appropriate regulatory mechanism so that the crop market could yield the desired fruits. Experience has shown that Tanzania lag behind in establishing appropriate market institutions as recommended by the World Bank report of 1994 (World Bank 2000). Some institutions impact negatively on producers especially for export crops. For example, Bee *et al.* (2006) identified a number of regulations which were working against open markets and also producers in many areas of the country.

An example of these regulations is the one that restricts geographical movement of produce in search of better markets. In WRS, law is required to

assure depositors that they will get their claims even if the Warehouse operator goes out of business (Hill and Bender, 1995). The Warehouse Act of 2005 is intended to serve that purpose but making an Act and enforcing it are two different things. The Act may be good but its implementation may be poor which consequently render the whole law poor. According to Chachage and Nyoni (2001), this is very common in Tanzania. They gave an example of Cashew nuts Board of Tanzania (CBT), a government organisation charged with the duties of making regulations on cashew nuts developments and enforcing the same. This organisation according to them not only failed to supervise their rules but also participated in their violation.

### **3.4 *Unfair distribution of Marketing Benefits from Agricultural Crops***

For internationally traded commodity, one of the concerns that the Fair Trade Movement (FTM) raises is the low share of consumer prices received by primary crop exporting countries and their farmers. According to Fair Trade Foundation (FTF), out of 1.75 pounds charged for a cup of coffee in a casino in London, the farmer or producer from developing countries can only receive a maximum of 5p' in a good season (FTF, 2002). In addition, according to Oxfam (2002), the share of the final price of coffee received by farmers in the producing countries dropped from 30% in 1992 to 10% in 2002.

On the other hand, Morriset (1997) found a wide spread between consumer and international prices for six products (coffee, sugar, wheat, beef, gasoline and fuel). He noted that the elasticity of transmission (the percentage of variation transmitted from international prices) is, on average, more than three times higher when international prices are increasing than when they are decreasing. The study attributed this unfair distribution of value along global chains to a power imbalance in the world commodity markets implying that the low and decreasing share of consumer prices received by farmers in developing countries can be explained by the market power of large private actors in consuming countries, and in particular the market power of large trading companies able to influence the transmission of world commodity prices to domestic prices.

In Tanzania, Amani (2006) reported that private companies have turned into monopolistic cartels which predetermine prices, forcing farmers in the country to sell cash crops at prices that are sometimes lower than the cost of production. Other studies (Pangisa, 2008; Cooksey *et al.*, 2007; Chachage and Nyoni, 2001) found that while farmers lacked strong organisation to advocate for their rights, buyers on the other hand, were organised under their cartel named Cashew nuts Association of Tanzania (CAT). WRS was introduced in Tanzania in order to reduce large trading companies influence on domestic prices, among other things. This calls for a study to determine the performance



achieved by the WRS since its introduction in the country as a way of enhancing rural livelihood.

#### **4. Achievement of the WRS in Tanzania**

There are several achievements which have already been realised in the country due to operations of the WRS. The main experiences that are reported in this paper is for the cashew nuts growing area and particularly from Mtwara and Lindi Regions where comprehensive initiatives were done by the Government in implementing the system. In other crops such as coffee growing area in Kilimanjaro Region, farmers were not forced to join the system but they had option of either selling through the private buyers or through the system. Following are some of the major achievements that were reported during the implementation period:

##### ***4.1 Successful Collection of Crops***

After implementation of the WRS, all cashew nuts were collected from farmers and transported to the identified warehouses and later on sold through the auction. Before implementation of the system, it was not possible to collect all crops in time and sometimes the season ended prematurely before farmers could sell all their cashew nuts. In the 2000/01 crop season for example, farmers were left with 40,000 to 60,000 tonnes in their stock.

##### ***4.2 Steady Increase of Farm Gate Prices for the Farmers***

Farm gate prices paid to farmers in different crops that have been practicing the system have experienced steady increases which have been stable throughout the season. Formally, before implementation of the system, producer prices used to change haphazardly and in most cases used to decline. A seminar of WRS stakeholders which was organised by the Agriculture Non-State Actors' Forum (ANSAF) that was held in Dodoma between 24<sup>th</sup> and 25<sup>th</sup> January, 2015 was informed that in the 2013/14 crop season, farmers who sold their cashew nuts through the WRS in Mtwara Region were paid TAS 1,400 per kg compared with TAS 800 per kg paid to farmers who sold to private buyers. Furthermore, the Cashew nuts Board of Tanzania (CBT) reported that there was a general trend of price increase for farmers who sold their cashew nuts through the WRS as depicted in *Table 1*. Results from the table shows that in the first year of practising WRS in the region, i.e. 2007/08 crop season, farmers were paid between TAS 650-730 while in 2011/12 crop season they were paid between TAS 1,200 and 1,400 per kg of cashew nuts.

**Table 1: Trends of farm gate prices for cashew nuts between 2007/08 and 2011/12 seasons**

Year	Indicative Price (TAS)	1 <sup>st</sup> instalment (TAS)	2 <sup>nd</sup> instalment (TAS)	3 <sup>rd</sup> instalment (TAS)	Total amount (TAS)
2007/08	610	370	240	40 - 240	650 - 730
2008/09	675	470	205	Nil	675
2009/10	700	490	210	20 - 350	720 - 1050
2010/11	800	560	240	600 - 960	1,440 - 1,760
2011/12	1,200	850	350	240	1,200 - 1,440

**Source: TCB (2014)**

### **4.3 Grading of Cash Crops according to their Quality**

The WRS has made it possible for the agricultural marketing Rural Primary Co-operative Societies (RPCS) to re-introduce the process of grading their crops before selling them. This system of grading cash crops used to be practised before trade liberalisation in most cash crops in Tanzania. In the case of cashew nuts, the system was abandoned at the level of farm in 1994. This contributed to the decline in selling prices because buyers in the international markets set prices according to the quality of crop.

### **4.4 WRS Contribute in Reducing Cash and Crop Losses**

The system has managed to reduce both the cash and crop losses especially through theft. Under the system, buyers are no longer required to move around with colossal amount of money because what is required is to make an agreement with a buyer and then pay the money through the banking system. This has been advantageous even to the buyers who are now financially secured. The system has also eliminated physical crop losses because the farmers or the RPCS are no longer involved directly in transportation of crops. Once the crops are under the custody of a specialised warehouse operator, the RPCS or farmers' obligation is only to enter into agreement with the buyers.

## **5. Challenges of the WRS in Tanzania**

Despite a number of advantages which have been realised by the farmers, RPCS and buyers as a result of implementing WRS, there are several challenges which face implementation of the system in the country. Following are some of the major challenges that face implementation of the system:

### **5.1 Lack of Clear Understanding of the WRS among Farmers and other Stakeholders**

There is lack of clear understanding of the WRS among farmers and other stakeholders in the country. Farmers are the main actors in this system in the

sense that they are the ones who are expected to store their crops in the warehouse after harvesting in order to sell them at higher prices during off seasons. However, it has been observed that most of them, both from coffee growing areas of Kilimanjaro and cashew nuts growing areas of Mtwara Region, had been pressing their RPCS to pay them 100% of indicative prices (this is a tentative price which is determined both by buyers and representatives of farmers before commencement of a new season in order to be used before crops are sold in the auction).

This shows that farmers are not aware that payments for the indicative prices are borrowed by the RPCS from the financial institutions using WRs as collaterals while waiting for their crops to be sold in the auctions. Some of the private buyers were offering prices which were slightly above the indicative prices in order to attract farmers to sell to them instead of selling to their RPCS despite the fact that they were paid once unlike in the RPCS which paid three instalments. Ignorance of the farmers on the WRS was being used by competitors of the system to manipulate farmers to sell to them. Lack of clear understanding of the system among farmers and other stakeholders was compounded by the fact that the WRS Act of 2005, its Regulations of 2006 and the Co-operative Societies Act 2013 were all written in difficult law style which cannot be understood by a common farmer.

### ***5.3 Political Interference on Issues of the WRS by some of the Leaders***

Some of the political leaders have been trying to convince farmers not to join the system for their own political interest. One case was reported where a member of parliament for a certain constitution differed with the regional commissioner on the implementation of the system in their area. While one of the two leaders was convincing farmers to join the system, the other was discouraging them from joining the system. Under normal circumstances, both government and national political leaders are supposed to be aware of the benefits of the system because it has been discussed at different national fora which include the national parliament.

This shows that the contradictions between the leaders were for their own political interests. It is common to hear from radios or to read from newspapers about political leaders such as members of parliament trying to press RPCS to issue second and third payment instalments to farmers as strategies of winning their support. It is also common to hear political leaders in Tanzania telling their voters that co-operatives are borrowing from poor farmers or they are stealing from farmers. These kinds of pressures can cause problems because they can create hatred of members on their RPCS and consequently decide to sell their crops to private buyers.

#### ***5.4 Competition between the WRS and Big Private Buyers***

There is a stiff competition between the WRS and private buyers who were benefiting from the unregulated system. These buyers have been trying to use all means under their capacity to see that the system does not work properly. They have, for example, been paying farmers 100% of the indicative prices at the beginning of crop season in order to woo them to sell crops to them instead of their RPCS. Unfortunately, some of the farmers are forced to accept the offer in order to address their immediate financial problems which include paying tuition fees for their children.

#### ***5.5 Contradiction between the WRS Act of 2005 and the Co-operative Societies Act of 2013***

Under the WRS, a RPCS gets a receipt from the warehouse operator which enables it to take loan from financial institutions basing on the quantity and value of the crop deposited in the warehouse. Therefore under this arrangement, the RPCS can take loan from banks or any other financial institution up to the value of crop deposited in the warehouse. On the other hand, the Co-operative Societies Act of 2013 empowers the Registrar of co-operatives to issue loan ceiling to RPCS from financial institutions without taking into consideration the value of crop which is deposited in the warehouse. The banks under normal circumstances are not ready to issue loan to RPCS over and above the ceiling issued by the Registrar even if it is aware of the value of crop deposited in a certain warehouse. This, as one can observe, is a contradiction between the two government instruments which instead of benefiting the farmers they are likely to retard performance of the system. This concern has been reported several times by Karansi RPCS, in Siha District Kilimanjaro Region.

#### ***5.6 Standard Percentage of Shrinkage for each Crop***

There is a tendency for many crops such as coffee and cashew nuts to shrink and lose weight after being stored for a certain period of time. However, there is a certain limit beyond which the crop will not continue to shrink. Percentage shrinkage for each crop therefore is required to be set scientifically and be clearly known to every stakeholder. In coffee marketing in Tanzania, percentage shrinkage before and after trade liberalisation has never raised any concern. On the other hand, there has been a constant misunderstanding between farmers and their RPCS in Mtwara Region on the extent of shrinkage deducted from their cashew nuts. At the time when a farmer deposits his/her crop in a RPCS, the crop is weighed and the farmer is given the right amount of weight. However, if the crop belonging to the farmer is not bought immediately, the weight is likely to decline due to shrinkage and the farmer in most cases will feel that the RPCs have stolen part of his/her crop. This problem is

compounded by the fact that different government organs dealing with the crop has not managed to establish one specific standard percentage of shrinkage for the crop.

### **5.7 Too Many Levies and Taxes are Imposed on Crop Sold through the WRS**

Despite the fact that selling crop through WRS has a number of advantages both to the farmer and the government, the system is subjected to plethora of levies and taxes charged at national, regional and local authorities which reduce farm gate prices considerably. On the other hand, after trade liberalisation in crop marketing in Tanzania, agents of private buyers used to go direct to the farmers in their houses. In Kilimanjaro Region for example, some of these buyers used to buy even coffee which had not been dried to the required standard at a reduced price per kg. This on the other hand, had an effect of lowering quality of coffee from Tanzania and thereby reducing income to the farmers and also denying the government income through taxes. Farmers who sold through the private buyers managed get higher amount of indicative prices per kg of crop compared with those who sold through WRS because of taxes and levies. *Table 2* depicts some of the most common costs imposed on indicative prices for cashew nuts in three different seasons.

**Table 2: Levies and taxes imposed on each kg cashew nut for three different years**

Type of cost	2007/08	2008/09	2012/13
District produce cess	30.50	33.75	60
RPCS levy	30	50	50
Union levy	14	21	21
Warehouse fee	8	17	14
Insurance for cash	2.5	1	1
Insurance for crop	2	1	1
Interest on loan	15	8	18
Other cost of loan	3	0	0
Shrinkage	11	13.50	12
Fumigation	2	2	2
Gunny bags	27.50	31.25	43.75
Distribution of cash	6	5	5
Distribution of bags	1	1	0
Transport	50	65	65
<b>Total</b>	<b>203</b>	<b>250</b>	<b>293</b>
<b>Indicative price</b>	<b>610</b>	<b>675</b>	<b>1,200</b>
<b>Auction price</b>	<b>813</b>	<b>925</b>	<b>1,493</b>

**Source: MAMCU Ltd and TANECU Ltd.**

As one can observe, there are several costs that can easily be withdrawn without affecting the Government much if the aim is to improve livelihood of farmers in the rural areas. For example, gunny bags bought in one season may be used for three seasons if they are kept in good condition. Distribution of cash and gunny bags to RPCS can be done together in order to reduce costs of taking different vehicles and employees. Despite the fact that all items involving transport such as money, gunny bags and cash have been charged, there is still another charge on transport at a very high rate of between TAS 50 and TAS 65 per kg of cashew nuts.

### ***5.7 Financial Institutions are not willing to give Loans direct to Smallholders***

One of the aims of WRS is to enable individual smallholders and RPCS who have deposited their crops at the warehouse to use the document as collateral in financial institutions for taking loans. However, most financial institutions in Tanzania are not ready to issue loans directly either to individuals or RPCS having WRS. Instead they like to pass through the registrar of co-operative societies where they are also given a document showing ceiling of loans for the co-operative society. Registrar of co-operative societies can only issue loan ceiling to co-operative societies and not to individual farmers. Furthermore, after having a receipt showing that one has already deposited crop of certain value in a certain authorised warehouse there is no need of asking for approval from the registrar but instead to take the receipt as collateral.

### ***5.8 There are no enough warehouses of the required standard in the rural areas***

In order for the WRS to be able to operate smoothly there is a need of having enough warehouses of the required standards in the rural areas of the country. However, currently, there are no enough warehouses of the required standards in most parts of rural Tanzania. Most of the existing warehouses are those which were built by RPCS and most of them need to be renovated or remodelled. Furthermore, they were only built in areas where cash crops were cultivated such as cotton and coffee growing areas. It is important to have warehouses of the required standards and reputable owners in order to build trust among financial institutions.

## **6 Conclusions and recommendations**

### ***6.1 Conclusions***

Despite the importance of WRS to farmers and the government, there is lack of clear understanding of the system among farmers who are the main actors and other stakeholders. This problem is compounded by the fact that the WRS Act

of 2005 is written in complicated legal language which cannot be understood clearly by the common farmers.

It has been found that WRS has many advantages both to the farmers as well as to the Government. These include among others: creation of secure collateral for banks; smoothening prices of agricultural crops by spreading sales throughout the year and stabilising prices of crops throughout the year.

Under trade liberalisation, smallholder producers in the country lack the necessary marketing information compared with traders. Traders consequently have been exploiting farmers' ignorance on prices by making false promises. Both the co-operative unions and marketing boards in the country are not truth worth and reliable especially in relation to quality and quantities of farmers' produce. Contracts entered by crop buyers and co-operative unions or crop boards are not made open to farmers. This consequently reduces farmers' confidence on them.

It has been found that there is unfair distribution of benefits from agricultural crops sold in the international markets by farmers from developing countries. Producers from these countries are paid small share of profits. In addition, farmers from developing countries are sometimes forced to sell their crops at prices which are lower than costs of their production.

The WRS Act of 2005 and the Co-operative Societies Act of 2013 which are used in implementing the system in the country have sections which contradict each other. For example, under the WRS, co-operative societies are allowed to take loans from financial institutions up to the tune of the value of their crop deposited in warehouses. On the other hand, under the Co-operative Societies Act of 2013, co-operative societies cannot take loans which are over and above the ceiling issued by the Registrar of co-operative societies. These loan ceilings are issued by the registrar of co-operatives without taking into consideration values of crops kept in warehouses by the societies.

Despite better prices of crops paid to farmers under the WRS, there is still plethora of taxes and levies which are imposed on the indicative prices issued at the beginning of each crop season. These taxes and levies compel some of the farmers to sell their crops to the private buyers and hence deny the Government incomes in terms of taxes.

## **6.2 Recommendations**

The WRS has several advantages both to agricultural crop producers as well as to the whole country. The Government is, therefore, advised to implement the system throughout the country. Farmers are also encouraged to join the system

and make sure that they observe all the regulations and procedures of the system in order to enhance their livelihood in the rural areas.

In order to create awareness of the system and its importance among the farmers, all stakeholders are urged to advocate and promote the system by organising seminars and workshops where participants can exchange ideas on the importance of the system. Experts from the Moshi Co-operative University (MoCU), Ministry of Agriculture, Food and Co-operatives and other areas are urged to produce simple Swahili versions of the WRS Act of 2005 and the Co-operative Societies Act of 2013 which can be understood by farmers and other stakeholders. The Swahili versions of the two Acts should be distributed to all RPCS and other rural areas where farmers can access them easily.

Actors in the WRS are urged to be honest to each other while doing business by distributing marketing information to other members so as to create friendly working environment and trust-worth among them. Contracts entered by the RPCS on behalf of the farmers should be open to all members.

RPCS which operate under the WRS should unite in order to create strong economic power among themselves which will give them better bargaining power when negotiating prices of their crops with the international buyers. This will create chances of getting large share of profits realised from their agricultural crops sold in the international markets.

Experts from MoCU, Ministry of Agriculture, Food and Co-operatives and other stakeholders should read the WRS Act of 2005 and the Co-operative Societies Act of 2013 and suggest sections that need to be amended from time to time in order to make operation of the WRS smooth and friendly to all actors.

In order to reduce plethora of taxes and levies which are imposed on prices obtained from agricultural crops, it is advised that a team of representatives of farmers and the Government should sit together and discuss about the appropriate amount and type of taxes and levies that should be imposed on the agricultural crops. This will motivate farmers to increase production. Furthermore, it will attract farmers to sell their crops through the WRS instead of the private buyers and consequently increase income to the Government through taxes.

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