FARMER’S-LED SUCCESSFUL BUSINESS CASES

Smallholder Cashew Business Model in Tanzania: Lessons from the Tandahimba Newala Cooperative Union (TANECU) Ltd.

Paul Thangata, Agricultural Economist

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List of Acronyms

AMCoS  Agricultural marketing Cooperative Societies
AMSDP  Agricultural Marketing Systems Development Programme
BoT    Bank of Tanzania
CATA   Cashew nut Authority of Tanzania
CBT    Cashew nut Board of Tanzania
CNSL   Cashew Nutshell Liquid
CP     Certificate of Pledge
CQA    Certificate of Quality Assurance
CRDB   National Microfinance Bank
CT     Certificate of Title
FAO    Food and Agriculture Organisation of the United Nations
FAOSTAT Food and Agricultural Organization Statistic Service
IDA    International Development Agency
KNCU   Kilimanjaro National Cooperative Union
MITM   Ministries of Industry, Trade and Marketing
MoAFSC Ministry of Agriculture, Food Security and Cooperatives
MT     Metric tonne
MUCCOBS Moshi University College of Cooperative and Business Studies
NCDB   National Cooperative and Development Bank
NDCA   National Development Credit Agency
NMB    National Microfinance Bank
NPRSP  National Poverty Reduction Strategy Paper
PCS    Primary Cooperative Society
PDN    Produce Delivery Note
RCN    Raw Cashew Nuts
SACCOs Savings and Credit Cooperatives
SIDO   Small Industries Development Organization
TANECU Tandahimba Newala Cooperative Union Ltd
TFC    Tanzania Federation of Cooperatives
TRA    Tanzania Revenue Authority
TSh    Tanzanian Shillings
TWLB   Tanzania Warehouse Licensing Board
UDSM   University of Dar Es Salaam
UNIDO  United Nations Industrial Development Organization
VETA   Vocational Educational Training Authority
WMA    Weight and Measurement Agent
WRS    Warehouse Receipt System
1. Background

1.1. The role of Cashew nuts in Tanzania’s Economy

Agriculture remains the dominant sector in Tanzania in terms of its size, contribution to GDP, generation of employment and export earnings.

Tanzania is one of Africa’s largest cashew nut growers. Cashew (Anacardium Occidentale L.), is a well-known species of the Anacardiceae family. The Cashew nut Board of Tanzania (CBT) reports that in 2012 Tanzania produced about 158,000 metric tons of cashew nuts. Of this, 88% is exported as raw nuts, while only 12% is processed internally, leaving a lot of value added and employment opportunities with the importing countries. Tanzania is Africa’s fourth largest producer of cashew nut, behind Nigeria, Ivory Coast and Guinea-Bissau, and the ninth biggest grower in the world. Cashew nut revenue accounted for about five percent of Tanzania’s annual gross domestic product by 2011/13 season.

It has been claimed that half million Tanzanians are engaged in small-scale cashew nut farming, particularly in the south-eastern part of the country, including Lindi and Mtwara regions (Figure 1). Cashew nut is important not only in the region and but also to Tanzania in general. Data from Cashew nut Board of Tanzania (CBT) indicated that Mtwara region was the biggest producer of cashew nut within the country. More than 50% of raw cashew sold between 2003 and 2012 came from Mtwara1.

Figure 1: Map of Tanzania showing Mtwara and Lindi (Source: http://www.emapsworld.com/tanzania-regions-map.html)

For more than 12 years, from 1998 to 2009, crops dominated the agriculture sector, with an average contribution to the sector of about 70 percent, followed by livestock and forestry (and hunting), with an average share of 16 and 8 percent, respectively. Fishing has an average share of 5 percent2. Cashew is one of the most important export crops in Tanzania after tobacco, coffee and cotton (Table 1). It

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has consistently been the main cash income for farmers in the Mtwara and Lindi regions for more than half a century, although it is also grown in other regions.

Table 1: Major export crops of Tanzania in 2008 (FAOSTAT 2011).

<table>
<thead>
<tr>
<th>Rank</th>
<th>COMMODITY</th>
<th>QUANTITY (tonnes)</th>
<th>VALUE (1000$)</th>
<th>UNIT VALUE ($/tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tobacco-unmanufactured</td>
<td>45,910</td>
<td>177,752</td>
<td>3,872</td>
</tr>
<tr>
<td>2</td>
<td>Coffee, Green</td>
<td>45,356</td>
<td>100,001</td>
<td>2,205</td>
</tr>
<tr>
<td>3</td>
<td>Cotton, Lint</td>
<td>54,116</td>
<td>80,893</td>
<td>1,495</td>
</tr>
<tr>
<td>4</td>
<td>Cashew, RNC</td>
<td>52,743</td>
<td>42,871</td>
<td>813</td>
</tr>
<tr>
<td>5</td>
<td>Tea</td>
<td>28,103</td>
<td>42,545</td>
<td>1514</td>
</tr>
<tr>
<td>6</td>
<td>Wheat Flour</td>
<td>58,493</td>
<td>36,672</td>
<td>627</td>
</tr>
<tr>
<td>7</td>
<td>Peas, dry</td>
<td>72,290</td>
<td>36,024</td>
<td>498</td>
</tr>
<tr>
<td>8</td>
<td>Cotton, Carded, Combed</td>
<td>33,792</td>
<td>34,866</td>
<td>1032</td>
</tr>
<tr>
<td>9</td>
<td>Sesame Seed</td>
<td>31,776</td>
<td>31,268</td>
<td>984</td>
</tr>
<tr>
<td>10</td>
<td>Palm Oil</td>
<td>19,612</td>
<td>27,875</td>
<td>1421</td>
</tr>
<tr>
<td>11</td>
<td>Cashew nut Shelled</td>
<td>7,725</td>
<td>26,503</td>
<td>3431</td>
</tr>
<tr>
<td>12</td>
<td>Cocoa beans</td>
<td>9,721</td>
<td>25,555</td>
<td>2629</td>
</tr>
</tbody>
</table>

1.2. Cashew: a source of income to smallholders

Cashew nuts provide an important source of income for 250,000 smallholder farmers in Tanzania. Much of the production is concentrated in a few districts such as Tandahimba, Newala, Masasi, Mtwara, Mkuranga and Nachingwea. They account for 80-90% of Tanzania’s marketed cashew nut crop. Cashew nuts are the source of three-quarters of total cash incomes of farmers in these districts. The average smallholder cashew farmer occupies about one to two hectares of cashew nut trees; sometimes intercropped with food crops, mainly cassava, grain staples and legumes.

Farmers are often organized in primary cooperative societies, either in so-called Agriculture Marketing Cooperative Societies (AMCoS) or Savings and Credit Cooperative Societies (SACCOS). Through the AMCoS farmers are able to jointly market their products efficiently and, in turn, get pesticides and other inputs at a better price. Through the credit societies, farmers get access to credits they need to buy pesticides and hire labour.

A small proportion of cashew nut is produced on medium to large plantations owned by individuals who do not live on the farms, meaning that the farms are operated by hired labour. These private plantations occupy about 2,000 hectares in the Lindi and Mtwara regions.
1.3. Production Trends of Cashew in Tanzania

Area and production of cashew nut in Tanzania varies over time as some farmers are shifting towards other crops.

Figure 2: Trend in area and production of RCN in Tanzania (1961–2013)

Figure 3 presents production and export trends of raw cashew nuts from 2004 to 2012. Production increased to 158,134 MTs in the 2011/2012 season from less than 80,000 MTs in 2004/05 season.

Figure 3: Raw cashew nuts production and export data from 2004 to 2012

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9Cashew nut Board of Tanzania, 2012. Investment opportunities in cashew nut industry in Tanzania
10Cashew nut Board of Tanzania, 2012, cit.
Tanzania used to produce over 20 percent of global production in the 1970s, peaking at 145,000 metric tons in 1974, but in the 1980s production declined. Approximately 90 percent of the Tanzanian cashew nut crop is exported to India as raw cashew nuts (RCN) and only a small portion, which is less than 10 percent, is processed internally\textsuperscript{11}.

1.4. Processing Cashew in Tanzania

Cashew processing in Tanzania began in the early 1960s, when a private company known as African Cashew Processors Company Ltd established a simple manual processing plant in Dar es Salaam. In 1965, the first mechanical processing factory, incorporating Italian technology, was installed\textsuperscript{12}. Processing gained momentum in the 1970s, and between 1968 and the late 1970s, the Government of Tanzania built 12 cashew processing factories with an accumulated capacity of around 100,000 MT (Table 2). All factories were large-scale mechanized types using either Italian (Oltemare) or Japanese (Cashco) technology. The factories were owned by the Cashew nut Authority of Tanzania (CATA), the government parastatal. However, in the 1980s, the rapid decline in production of cashew nut resulted in the closure of all twelve factories\textsuperscript{13}.

Table 2: Factories built by the government of Tanzania in 1970’s and their capacities

<table>
<thead>
<tr>
<th>NAME OF FACTORY</th>
<th>LOCATION INSTALLED</th>
<th>CAPACITY (TONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern TZ Project-Newala</td>
<td>Newala</td>
<td>10,000</td>
</tr>
<tr>
<td>Southern TZ Project-Newala II</td>
<td>Newala</td>
<td>10,000</td>
</tr>
<tr>
<td>Southern TZ Project-Lindi</td>
<td>Lindi</td>
<td>12,000</td>
</tr>
<tr>
<td>Southern TZ Project-Masasi</td>
<td>Masasi</td>
<td>10,000</td>
</tr>
<tr>
<td>Mtwara Cashew Company</td>
<td>Mtwara</td>
<td>10,000</td>
</tr>
<tr>
<td>Tunduru Tunduru</td>
<td>Ruvuma</td>
<td>12,000</td>
</tr>
<tr>
<td>Southern TZ Project</td>
<td>Lindi</td>
<td>5000</td>
</tr>
<tr>
<td>Southern TZ Project-Nachingwea</td>
<td>Nachingwea Lindi</td>
<td>5000</td>
</tr>
<tr>
<td>Tanita II</td>
<td>DSM</td>
<td>12,000</td>
</tr>
<tr>
<td>Likombe Cashew nut Factory</td>
<td>Mtwara</td>
<td>10,000</td>
</tr>
<tr>
<td>Kibaha Cashew Nut Factory</td>
<td>Kibaha</td>
<td>10,000</td>
</tr>
<tr>
<td>Tanita I</td>
<td>DSM</td>
<td>10,000</td>
</tr>
<tr>
<td>Total Processing Capacity per Annum</td>
<td></td>
<td>116,000</td>
</tr>
</tbody>
</table>

In the 1990’s, the government decided to sell the twelve factories to private firms, with the aim of rescuing the market of raw Cashew nut produced in Tanzania. These firms process the cashew nut at the 1st and 2nd stages of Cashew nut processing, based on their processing capacities.

The current capacity of cashew processing in Tanzania is around 140,000 MT distributed across the 12 processing factories and three medium cashew processing factories using the Indian Technology (with an annual capacity ranging from 3,000 to 10,000MT). However, much of this capacity cannot be mobilized, as many factories would require rehabilitation and further investments to reach their full capacity. Furthermore, farmers groups have established some smaller processing units of around 300 MT\textsuperscript{14}. Today, there are about 40 small, medium and large-scale factories in Tanzania processing at

\textsuperscript{11}Sam Maghimbi, 2010, cit.
\textsuperscript{13}Sam Maghimbi, 2010, cit.
\textsuperscript{14}Sam Maghimbi, 2010, cit.
43.6% capacity utilisation, which is significantly contributed to by small and medium scale firms. Table 3 presents some 25 of these processing factories and their status in the 2009/10 season.

Table 3: Cashew processing factories in Tanzania and their technology

<table>
<thead>
<tr>
<th>No</th>
<th>Factory</th>
<th>Owner</th>
<th>Original Technology setup</th>
<th>Present Technology setup</th>
<th>Estimated capacity</th>
<th>Production in season 2009/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mbagala (TANITA II)</td>
<td>In dispute</td>
<td>Japanese</td>
<td>No machines</td>
<td>12,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>2</td>
<td>Lindi</td>
<td>BU CO Lindi</td>
<td>Italian</td>
<td>Italian</td>
<td>12,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>3</td>
<td>Masasi</td>
<td>BU CO Masasi</td>
<td>Italian</td>
<td>Italian</td>
<td>12,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>4</td>
<td>Tunduru</td>
<td>Korosho Africa Ltd</td>
<td>Italian</td>
<td>Indian</td>
<td>12,000</td>
<td>Operational</td>
</tr>
<tr>
<td>5</td>
<td>Newala I</td>
<td>Agrofocus (T) Ltd</td>
<td>Italian</td>
<td>Italian</td>
<td>12,000</td>
<td>Operational</td>
</tr>
<tr>
<td>6</td>
<td>Olam Factory</td>
<td>Olam (T) Ltd</td>
<td>Indian</td>
<td>Indian</td>
<td>12,000</td>
<td>Operational</td>
</tr>
<tr>
<td>7</td>
<td>TANITA I Kibata</td>
<td>Safa Petroleum</td>
<td>Japanese</td>
<td>Indian</td>
<td>12,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>8</td>
<td>Likombe</td>
<td>Micronix</td>
<td>Japanese</td>
<td>Indian</td>
<td>12,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>9</td>
<td>Newala II</td>
<td>Micronix</td>
<td>Japanese</td>
<td>Indian</td>
<td>12,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>10</td>
<td>Tandahimba</td>
<td>River Valley Food Ltd</td>
<td>Indian</td>
<td>Indian</td>
<td>12,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>11</td>
<td>Vingunguti Premier Cashew</td>
<td>Fidahusein</td>
<td>Indian</td>
<td>Indian</td>
<td>8,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>12</td>
<td>Mbagala</td>
<td>Mohamed Enterprise (T) Ltd</td>
<td>Indian</td>
<td>Indian</td>
<td>5,000</td>
<td>Operational</td>
</tr>
<tr>
<td>13</td>
<td>Mtama</td>
<td>Lindi Farmers Comp.Ltd</td>
<td>Italian</td>
<td>Indian</td>
<td>5,000</td>
<td>Trial phase</td>
</tr>
<tr>
<td>14</td>
<td>Nachingwea Factory</td>
<td>Lindi Farmers Comp.Ltd</td>
<td>Italian</td>
<td>Italian</td>
<td>5,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>15</td>
<td>Kibaha</td>
<td>UVUKI</td>
<td>Indian</td>
<td>Indian</td>
<td>3,000</td>
<td>Not operational</td>
</tr>
<tr>
<td>16</td>
<td>Sanol Factory Mikindani</td>
<td>For Olam</td>
<td>Indian</td>
<td>Indian</td>
<td>2,000</td>
<td>Under Olam</td>
</tr>
<tr>
<td>17</td>
<td>Jakaas Nachingwea</td>
<td>For Olam</td>
<td>Indian</td>
<td>Indian</td>
<td>2,000</td>
<td>Operational</td>
</tr>
<tr>
<td>18</td>
<td>Mtwar MCC</td>
<td>CC2005 Ltd</td>
<td>Japanese</td>
<td>Indian</td>
<td>2,000</td>
<td>Operational</td>
</tr>
<tr>
<td>19</td>
<td>Masasi High Quality</td>
<td>Masasi Farmer Group</td>
<td>Indian</td>
<td>Indian</td>
<td>1,500</td>
<td>Operational</td>
</tr>
<tr>
<td>20</td>
<td>Naliendele Res. Institute</td>
<td>Min. of Agric.</td>
<td>Indian</td>
<td>Indian</td>
<td>300</td>
<td>Operational</td>
</tr>
<tr>
<td>21</td>
<td>Mbutano Res. Institute</td>
<td>Min. of Agric.</td>
<td>Indian</td>
<td>Indian</td>
<td>300</td>
<td>New</td>
</tr>
<tr>
<td>22</td>
<td>Rufuji</td>
<td>Farmer Group</td>
<td>Indian</td>
<td>Indian</td>
<td>300</td>
<td>Trial phase</td>
</tr>
<tr>
<td>23</td>
<td>KITAMA</td>
<td>Kitama Farmer Group</td>
<td>Indian</td>
<td>Indian</td>
<td>300</td>
<td>Trial phase</td>
</tr>
<tr>
<td>24</td>
<td>Tanga</td>
<td>DAMROS</td>
<td>Indian</td>
<td>Indian</td>
<td>300</td>
<td>Not operational</td>
</tr>
<tr>
<td>25</td>
<td>Annar Factory Newala</td>
<td>Process for Olam</td>
<td>Indian</td>
<td>Indian</td>
<td>2,000</td>
<td>Operational</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>136,700</strong></td>
<td></td>
</tr>
</tbody>
</table>

1.5. Cashew nut Marketing: The warehouse receipt system/auction

In Tanzania, raw cashew nuts are sold through Warehouse Receipt System (WRS) that was introduced in 2007\(^\text{16}\) to prevent exploitation of farmers and to enhance competitiveness of processors\(^\text{17}\). In this system, farmers send their cashew to the nearby cooperatives (such as Agricultural Marketing Cooperative Society (AMCoS)) and are paid 70% of the value of their cashew nuts sold through cooperatives minus loans obtained from banks by the primary cooperatives. The remaining sum is paid

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\(^{15}\) UNIDO 2011, *cit.*
\(^{16}\)Likwata, et al., 2014, *cit.*
\(^{17}\)PASS Trust 2013. Investment potential in cashew nut industry (DRAFT)
to the farmer after selling cashew nut through auction conducted in the warehouses under the supervision of Cashew nut Board of Tanzania (CBT) and regional cooperative societies\textsuperscript{14}.

Figure 4 shows the world’s main cashew producers in the 2014/15 season\textsuperscript{19}. Globally, Tanzania was the 6\textsuperscript{th} main producer of RCN.

![Figure 4: 2014/2015 Production in main cashew producing countries\textsuperscript{20}]

More than 90\% of Tanzania’s raw cashew nuts are destined to India. Three exporters, Vietnam, India and Brazil supply over 90\% of the kernels traded globally (Table 4)\textsuperscript{21}.

**Table 4: Exports of Kernels in Quantity, Values and Unit Values Year 2010\textsuperscript{22}**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Area</th>
<th>Quantity</th>
<th>Value ($1000)</th>
<th>Unit Value ($/Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vietnam</td>
<td>194,622</td>
<td>1,134,740</td>
<td>5,833</td>
</tr>
<tr>
<td>2</td>
<td>India</td>
<td>92,598</td>
<td>561,740</td>
<td>6,069</td>
</tr>
<tr>
<td>3</td>
<td>Brazil</td>
<td>42,174</td>
<td>229,564</td>
<td>5,446</td>
</tr>
<tr>
<td>4</td>
<td>Netherlands</td>
<td>35,097</td>
<td>173,793</td>
<td>4,955</td>
</tr>
<tr>
<td>5</td>
<td>United Arab Emirates</td>
<td>9,389</td>
<td>44,129</td>
<td>4,700</td>
</tr>
<tr>
<td>6</td>
<td>Germany</td>
<td>4,246</td>
<td>27,620</td>
<td>6,508</td>
</tr>
<tr>
<td>7</td>
<td>Tanzania</td>
<td>30,206</td>
<td>26,541</td>
<td>879</td>
</tr>
</tbody>
</table>

\textsuperscript{14}Likwata, et al., 2014, cit.
\textsuperscript{20}These are World cashew production estimates in 2015 by: RONGEAD for ICA. See Rabany, C., Rullier, N., Ricau P. 2015. Cit.
\textsuperscript{21}Cashew nut Board of Tanzania, 2012, cit.
\textsuperscript{22}Cashew nut Board of Tanzania, 2012, cit.
However, in 2014, Tanzania expanded its kernel exports to many countries (Figure 5).

Figure 5: Tanzania cashew kernel exports by destination (2014)

2. Historical overview of Cooperatives Movement and Policies in Tanzania

Cooperatives emerged in Tanzania during the colonial period. The history of cooperatives in Tanzania dates as far back as 1925 when the Kilimanjaro Native Planters Association was formed. However, the first Cooperative legislation was not passed until 1932 when the Cooperatives Ordinance (Cap. 211) was enacted. The Kilimanjaro Natives Cooperative Union (KNCU), established in 1924, is probably one of the oldest cooperative unions in Africa. The history of the KNCU dates to 1898, when Catholic missionaries planted the first coffee tree at the Kilema mission in Moshi. Initially, the European settlers resisted allowing Africans to grow coffee, fearing that they would spread coffee-related diseases as well as reduce the supply of labour to their farms. Sir Charles Dandus, the first British District Commissioner, allowed the Chagga people to grow coffee as a cash crop to pay a poll tax to the colonial government. The African coffee farmers had no reliable market that would offer fair prices; hence they were at a disadvantage. These challenges motivated the Chagga to form an organisation to pool their resources to enjoy the benefits of economies of scale (Kimario, 1992). The KNCU was registered in 1933 under the 1932 Cooperative Societies Ordinance.

The early cooperatives were established to counter exploitation by Asian merchants, who offered lower prices and used fraudulent scales (Kimario, 1992). African farmers believed that they would be able to eliminate exploitation by the Asian middlemen by combining their resources. Similarly,

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23 Source: RONGEAD for ICA
cooperatives in Kilimanjaro developed in response to the efforts of European settlers to monopolise coffee production (Kimario, 1992; Lyimo, 2012).

After independence in 1964, the Government viewed cooperatives as outposts for economic development. The 1963 Cooperative Society Ordinance was designed to spread cooperatives to areas without cash crops, which were therefore not economically viable. The Arusha Declaration of 1967 advocated and recognized cooperatives as instruments for implementing the policy of socialism and self-reliance. It allowed cooperatives to participate in socialist projects and national development. Thus, the 1968 Cooperative Societies Act organised cooperatives at the regional level rather than according to their economic viability or members’ interests\(^24\).

After the abolition of cooperatives in 1976, village cooperatives were supposed to deal with all the crops in its designated areas\(^25\). The 1976 Ujamaa Villages Act was the most substantial blow to the cooperatives movement in Tanzania. Most of the current problems and conflicts of this movement are rooted in the Ujamaa era, during which cooperative unions and their affiliated primary cooperatives were abolished by the government and re-organised at the village level. The new organisation differed from the old in that cooperatives were not based at the village level and unions were not based at the regional level. Unlike under the previous arrangement, where cooperatives were established according to needs of the members and dealt with only one crop (Banturaki, 2000) that was familiar to the members, in the Ujamaa Villages Act arrangement, the cooperatives were supposed to act as multipurpose cooperative societies by purchasing all the crops produced in the village.

The 1982 Cooperative Societies Act re-established cooperatives but placed them under the patronage of the ruling party, making membership almost compulsory. As a result, the cooperatives were under the close supervision of the government and the ruling party, which appointed leaders and controlled their daily activities. During this period, each village was supposed to be a political wing of the ruling party and a multipurpose cooperative at the same time. The election of leaders was screened and approved by the ruling party organs; thus, the leaders were accountable to the party rather than to the members of the cooperatives (Maghimbi, 1992)\(^26\).

The 30 years from 1961 to 1991 were a period during which the cooperatives movement in Tanzania made little progress. Changes in the macro-economic policies, which started in the late 1980s, aimed at introducing free market and trade liberalization policies, in turn led to the on-going efforts to make cooperatives member-based organizations. The Cooperative Societies Act of 1991 was enacted for that purpose. However, the first Cooperative Development Policy was formulated in 1997. The policy reiterated the Government commitment for development of cooperatives that belong to members, in recognition of the International Cooperative Alliance Principles\(^27\).

2.1. Recent History of Cooperative Policy and Legislation in Tanzania

Cooperatives in Tanzania were re-introduced in 1982. Traditionally the type of cooperative that has been dominant in the mainland of Tanzania is the one that has focused on the marketing of peasant

\(^{26}\)Mhando, D. G. 2014, cit.
\(^{27}\)Sam Maghimbi, 2010, cit.
agricultural crops. The present day dominance of SACCOs is thus a recent phenomenon that started in the 1990s.

The cooperative movement performed poorly after reintroduction in 1982 and under the 1991 cooperative law, as it was too restrictive. The Government of Tanzania appointed a Presidential Committee in March 2000 to look into the contributory factors and advise the government on appropriate measures to be adopted. The Committee recommended the formulation of the Cooperative Development Policy and a new cooperative Act. The new Cooperative Societies Act, 2003 was passed in parliament and gazetted on 6th February 2004 and came into effect on 1st August 2004. In 2003 a Declaration Order was signed by the President of Tanzania, which transformed the Cooperative College Moshi into Moshi University College of Cooperatives and Business Studies (MUCCOBS). MUCCOBS operates as a campus of Sokoine University of Agriculture (SUA) until it attains full university status.

Savings and credit cooperatives (SACCOs) were not as numerous as the crop marketing cooperatives in the pre-abolition period. However, SACCOs have grown rapidly since the 1980s and as institutions they have remained more stable than the crop marketing cooperatives. In the 1980s and 1990s when most crop marketing cooperatives collapsed, the SACCOs continued to survive (Maghimbi, 2006).

The cooperative movement has adopted various structures at different periods (two-tier, three-tier, four-tier). The Cooperative Societies Act, 2003 was passed bearing in mind that more levels or tiers might result in less scope for member control and increased costs for members. This Act is flexible and only primary cooperatives and the confederation are recognized as the basic structures of the movement. Members of cooperatives are free to decide whether or not to form middle level structures (i.e. secondary and tertiary cooperatives) depending on their needs.

2.2. The Savings and Credit Cooperative Societies (SACCOS) as Micro-finance institutions

Savings and Credit Cooperative Societies (SACCOS) are among the Micro-finance institutions operating in Tanzania. In Tanzania, Savings and Credit Cooperative Societies (SACCOS) emerged in 1954. The government and many studies place emphasis on the establishment of SACCOS as a way to increase rural income, without seeking to understand the extent of its contribution in promoting rural livelihoods. The establishment of modern cooperatives in Tanzania is associated with a cash crops economy and, as a result, early cooperative institutions flourished in the coffee, cotton, and tobacco growing areas of Kilimanjaro, Kagera, Mwanza, and Ruvuma (Assenga, 2008).


2.3. The Cooperative Bank
The Cooperative Bank of Tanganyika was launched in 1962 and was replaced by the National Cooperative Bank (NCB) in 1964. The latter provided loans to cooperatives for purchasing crops. Cooperatives held shares and maintained current and fixed deposit accounts in the bank. The NCB also received overdrafts from the Central Bank of Tanzania. It was a success and a landmark in the history of the cooperative movement in the country. The holding company for the National Cooperative Bank was the National Cooperative and Development Bank (NCDB). The NCDB did not operate as a bank, but the National Cooperative Bank and the National Development Credit Agency (NDCA) operated as its subsidiaries.

The NDCA used the primary cooperatives and unions as agents to offer loans to peasants and to collect repayment. The NDCA granted loans using its own resources and funds from a subsidiary of the World Bank, the International Development Agency (IDA). By using the cooperative movement to channel credit to rural areas, the NDCA was able to reach 100,000 small farmers every year. Between 1962 and 1966 the NDCA gave agricultural credit worth TZS 39,153,000 to cooperative members. In the same period it offered agricultural credit worth TZS 20,428,000 to non-cooperatives members (Kimario, 1992). Marketing cooperatives expanded their business tremendously in the early 1960s.

3. Cooperative Business Models and Value Chain Actors in Tanzania

Cooperative development in Tanzania and elsewhere in the world has been a vehicle for improving livelihoods of the residents in both urban and rural settings. The cooperatives, as well as their underlying principles, are rooted in the philosophy of the Rochdale Pioneers in England, who established a consumer cooperative store. The founding of the Rochdale Society of Equitable Pioneers in 1844 is regarded as inaugurating the modern cooperative movement. Thus, the Rochdale organisation and its operational patterns have been used as a prototype for all contemporary cooperatives worldwide. A review by UNICO, has defined cooperatives based on their role in development as organisations in which a group of people come together to achieve a particular economic goal for all members of the group. Cooperative in this context is defined as an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically controlled enterprise.

These organisations achieve their objectives through a democratic process in which each member has an equal voice. Therefore, the primary goal of any cooperative is to meet the needs of its members in a cost-effective manner. Agricultural marketing cooperatives are owned by farmers and act to oversee agriculture-related activities, such as the transformation, packaging, distribution, and marketing of farm products (both crops and livestock). As an association comprising a large number of small-scale farmers, a cooperative acts as a large business in the marketplace, reaping the significant advantages of economies of scale that are not available to its members on an individual basis.

3.1. Cooperative Business Models and Value Chain Actors in Tanzania

A report by UNIDO (2011), has documented the main players in the cashew value chain (those who produce, transfer and own products): farmers, Primary Cooperative Societies (PCSs), regional cooperative unions, processors, exporters, roasters and retailers (including shops as well as roadside and street vendors). These play different roles in the cashew value chain:

- **Farmers**: these are the cashew producers.

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3UNIDO, 2011, cit.


5UNIDO, 2011, cit.

6UNIDO, 2011, cit.
- **Primary Cooperative Societies (PCS):** These, on behalf of the member farmers, provide inputs (mainly pesticides) and procure supplies in bulk (e.g. farm equipment, fertilizers, sprayers, and gunny bags).
- **Cooperative Unions:** Assist Primary Cooperative Societies to procure materials in larger quantities.
- **Farmers groups and individuals:** When forming under a legal status such as a cooperative or a private company such groups attain the right to sell raw cashew nuts to the export market. These groups have often been established in response to members’ discontent with the operations of primary cooperative societies.
- **Processing groups:** A few farmers’ groups have ventured into the processing of cashew nuts locally, though their number is still low given the challenges of mounting processing operations. Some farmers’ groups work with individuals who process cashew nuts locally.
- **Warehouses:** All raw cashew nuts, by law, have to be transported to certified warehouses where they are stocked in designated lots, separated for each cooperative. The warehouses provide a receipt for the goods, which are then auctioned to buyers.
- **First level processors:** Only engage in processing of cashew nuts up to the level of deshelling before peeling.
- **Second level processors:** Engage in the peeling of cashew nuts and continue to sorting and packing. Small-scale processors produce for the local market while medium scale to large-scale processors produces for local, regional and international markets.
- **Exporters:** Exporters’ and large-scale processors’ main markets are Europe, India, Middle East and USA for kernels and only India for raw nuts.
- **Street vendors:** These are hawkers that sell cashew nuts on the roadside and at traffic lights. Often they operate on an individual basis. Sometimes they also work for middlemen who send them out and they get paid after the products have been sold, leaving them only a very small commission for selling the product.
- **Shops, minimarkets and supermarkets:** Cashew nuts are available throughout the country at shop outlets, roadside stands, mini markets and larger supermarkets.
- **Cottage processors:** These small processors de-shell, peel, and roast cashew nuts manually in backyards. Often these operations are run by agents that engage in selling the product at small stands at the roadside.

In 2004, the Ministry of Agriculture, Food Security and Cooperative (MoAFSC) established Agriculture Marketing Cooperative Societies (AMCoS) in cashew nut growing zones of southern Tanzania to raise productivity and profitability of small scale farmers. This was based on the premise that cooperatives are formed to serve the needs of the members and to reduce individual transaction costs and hence increase social benefits and achieve economic growth. It was also expected that members of AMCoS would maximize their incomes and other benefits by accessing services from the operations of cooperative business enterprises. For all these to be achieved MoAFSC expected the AMCoS to determine members’ business needs, prepare a development plan, implement it and lastly undertake monitoring and evaluation. The assumption was that each AMCoS would employ a well-educated manager, experienced in cooperative and business activities.

### 3.2. Service Providers
Service providers include the Cashew nut Board of Tanzania (CBT), District Agricultural and Livestock Offices, government research and extensions services, financial institution such as CRDB and NMB, and NGOs\textsuperscript{37}. Some main service providers are:

- **Input suppliers**: They provide fungicides, pesticides and pesticide spraying machines. Inputs into primary production also include farm inputs and planting materials.

- **Transporters**: Their main function is to transport raw cashew nuts from the cooperatives to the warehouses. In the case of processed cashew nuts, they would also transport them from processing plants to the local markets and to the ports.

- **Cashew nut Board of Tanzania**: Its main functions, as set out in the Cashew Act No. 21 of 1984 (amended 1993), are to advise government on cashew industry policies and strategies, promote the development of cashew production, processing and marketing, assist research and development for the industry, regulate and control the quality of cashew nuts.

- **Research**: The National Agricultural Research Institute at Naliendele as well as various university institutions such as University of Dar Es Salaam (UDSM) support R&D.

- **Training and education**: Institutions that engage in technical and management training and education include: Small Industries Development Organization (SIDO), Naliendele Research Institute, and the Vocational Education Training Agency (VETA).

- **District Agricultural and Livestock Offices**: These, sometimes in collaboration with NGOs and CBOs, provide services through trainings, farmer field schools, and media releases.

- **Financial service providers**: Financial institutions play a substantial role in the chain, e.g. the National Microfinance Bank and CRDB Bank.

### 3.3. The Tanzania Federation of Cooperatives

At the top of the cooperative structure is the Tanzania Federation of Cooperatives (TFC). This is a confederation that represents, promotes, serves and coordinates the development of all cooperatives on mainland Tanzania. TFC was registered on 8th December 1994 (registration No. 5503) under the 1991 Cooperatives Societies Act, with five founding members. It is an independent non-political, non-governmental and non-partisan organization that observes international cooperative principles and is a member of the International Cooperative Alliance. Currently TFC has 14 members (thirteen cooperative unions and one federation organization). In all the cooperative institutions the highest authority is the annual general meeting (AGM)\textsuperscript{38}.

### 3.4. The Cashew Industry in Tanzania: Policy, Legal, Regulatory, and Institutional Framework

Government policy is clearly to develop the cashew sector both in value addition and in production and to enhance earning at all levels of the sector. Since the mid-1980s, Tanzania has introduced a series of broad policy reforms and measures intended to restore macroeconomic balance, stimulate economic growth and facilitate social and political development.

The Tanzanian Government’s Ministry of Agriculture, Food Security and Cooperative (MoAFSC) has adopted various measures which aim to help farmers overcome various challenges encountered in their daily activities. Among the measures are the establishment of crop boards, including Cashew nut Board of Tanzania (CBT), which monitors overall activities of the Tanzanian cashew industry. The farm level activities, processing and trade are undertaken by the private sector, while the government and its agencies, the Ministries of Industry, Trade and Marketing (MITM); Agriculture, Food Security and

\textsuperscript{37} UNIDO, 2011, cit.

\textsuperscript{38} UNIDO. 2011, cit.
Cooperatives (MoAFSC) and Local government (PMORALG) have the mandate of setting policies and overseeing the regulatory framework at the various levels of the cashew value chain from production, marketing, value addition as well as overall sector coordination.

As highlighted by the UNIDO (2011)\textsuperscript{39} review, the Cashew Development Trust Fund (CDTF), formed by the Cashew Act from 2009 is meant to support the development of the cashew industry including production, processing value addition and marketing. It has six trustees representing local government authorities (1), Farmers (3), Processors (1) and MoAFSC (1). The Government and its agencies also engage in research and extension services. Cashew research activities are 75% funded from the 15% Cashew levy collected from the export of raw cashew nuts, plus contributions from the ministry of agriculture for inputs, and the District Councils and processors as beneficiaries of the cashew. It has established Cashew nut Development Centres (CDC) in major cashew growing areas. The CDCs are training centers and also serve as an exit point for research technologies to farmers.

The cashew value chain is largely influenced by government regulation and taxation. Tanzania has the highest export taxation regime in the world for cashew nuts. The Cashew Board of Tanzania (CBT), operating under MoAFSC, coordinates the warehouse receipt system and ensures the quality of raw and processed cashew nuts across the value chain; and is involved in annual price negotiations including the coordination of the consultative process that sets an indicative minimum price. The arrangement for cashew marketing is driven primarily by the warehouse receipt system, as one of the reforms introduced by government to make the markets fairly competitive. It offers elements of competition that is advantageous to the farmer and also to buyers. Traders need to deal with the following permits and papers in order to buy and export cashew nuts:

- Business license, issued by Ministry of Industry Trade and Marketing under the Tanzania business registration by Business Registration Agency (BRELA).
- Tax Identification Number issues by the Tanzania Revenues Authority (TRA).
- Value Added Tax Certificate Authority (TRA).
- License from the Cashew nut Board of Tanzania to buy cashew from authorized centers (warehouse operators).
- Export license to be issued once in a season by CBT.
- Export permit for each lot to be exported, issued by CBT after the exporter has paid an export levy of 15% (payment made to Tanzania Revenue Authority)
- Produce Delivery Note (PDN) issued by CBT
- Invoice from Cooperative Union that they won the bid in the auction.
- Release warrant from the respective Bank that they have paid for the lot they bid for.

4. The Case of Tandahimba Newala Cooperative Union (TANECU) Ltd.

The Tandahimba Newala Cooperative Union (TANECU) Ltd. is a cooperative union covering Newala and Tandahimba districts in Mtwara Region. Tandahimba district covers an area of 2,048.56 km\(^2\) and Newala District covers about 1,952.68 km\(^2\) where 80% of the land is used for agricultural activities. Tandahimba district has an estimated population of 227,514 people, while Newala District has 205,492 people.

TANECU LTD provides cooperative services and business marketing support to its members, through a collaborative culture that fosters integrity, outstanding value to clients in both cooperatives and business, and commitment to assist them acquire social and economic growth.

The emphasis is on supporting the needs of its cooperative members to meet business expectations. TANECU Ltd addresses business concerns by awarding tenders to warehouse operators, transporters and gunny bag suppliers in preparation for the growing season.

\textsuperscript{39} UNIDO, 2011, \textit{cit.}
4.1. Background to the Tandahimba Newala Cooperative Union (TANECU) Ltd.

TANECU Ltd was formed from Members of Mtwara Regional Cooperative Union (MARCU) and the cooperative Union, the Agricultural Marketing Cooperative Societies (AMCoS) of Mtwara Region; the Mtwara Masasi Cooperative Union (MAMCU LTD) and Newala Cooperative Union limited (NECU LTD). Today TANECU LTD is located in Newala and Tandahimba districts and is registered under the Cooperative Societies Act No.20 of 2003 (certificate No. 5569). TANECU LTD has 177 AMCoS, of which, 124 operate from Tandahimba District and 53 operate from Newala District.

TANECU Ltd accepts both voluntary and registered members to join from primary societies that operate within Tandahimba and Newala districts. TANECU Ltd supervises and coordinates the cooperative activities in agro-business, and also deals with Cashew nut operations and other mixed crops to enable farmers to benefit from their crops after sales under WRS.

4.2. Objectives, Mission, and Vision

TANECU LTD operates to fulfil the needs of its affiliated members by promoting their social-economic interests. Its main objective is to promote the economic interests of AMCoS and support its members with agricultural and all crop and animal husbandry development activities. Since its registration as a cooperative union, TANECU Ltd continues to undertake the following activities:

i) Organize, encourage and promote cooperative development amongst its membership.

ii) Promote and initiate good farming practices, institute instructional and educational plans to support cooperative and agricultural education aspects.

iii) Lease land, buildings, machinery and implements, experimental and test centre for the benefit of the Union and its membership.

iv) Assist its members in controlling crops and animal diseases and pests, through the use of fumigation and others methods.

v) Encourage and promote measures of mutual help and self-reliance among its members.

vi) Support members with mill operation, processing plants, storage, transport, marketing and distribution.

vii) Act as buyer and seller for all operations connected to marketing members’ produce.

4.3. TANECU Ltd Organization Structure

The organization structure of TANECU Ltd provides for future expansion depending on expansion of union activities (Figure 6).
5. The TANECU Ltd Business Model of Warehouse Receipt System: Achievements and Challenges

TANECU Ltd is a crop marketing cooperative firm that mainly operates on a Warehouse Receipt System. TANECU LTD is a member of the Tanzania Warehouse Licensing Board (TWLB), the warehouse receipt system regulator, Cashew nut Board of Tanzania (CBT), the quality controller and promoter of cashew nut industry, Cashew nut Industry Development Trust Fund (CIDTF), the main link for fostering development of the cashew sector, Weight and Measurement Agent (WMA), responsible for calibration and certifying weight bridges and other stakeholders.

TANECU Ltd, as a warehouse operator, is obliged to record the weight, grade, kernel out-turn and moisture content of cashew nuts. Nuts with moisture content above the limits are not accepted. TANECU Ltd owns two certified warehouses, one with a capacity of 10,000 metric tons and the other with a capacity of 5,000 metric tons, which are used to store the cashew nuts from the affiliated members of TANECU Ltd.

5.1. TANECU Ltd Facilitation Roles in Cashew nut Marketing

TANECU facilitates the AMCoS. The AMCoS prepare their annual requirements and submissions to TANECU LTD through Branch Managers or head office who submit to Operations and Marketing Office for compilation forming part of TANECU LTD Cashew nut procurement plan.

All supplies and services for societies are procured by TANECU through centralized procurement activities. The Secretaries of Societies place orders in writing to the General Manager through respective Branch Managers who ensure that the requested supplies and services are provided to the societies at the right time, and of the right quantity and quality.

TANECU Ltd is responsible for marketing the crops of its affiliated members in accordance with established Cashew nut sales regulations and procedures set by Government and the Cashew nut Crops Marketing Board. The Marketing Officer is responsible for compilation of all data of Crops in the
warehouses and produces a Sales Catalogue summarizing quantity, grade, location/name of Warehouse and respective cooperative societies. The Catalogue is prepared on a weekly basis as may be determined by top authority by marketing officer, checked by Operations and Marketing Manager and approved by General Manager before circulation to established buyers.

5.2. How the Cashew nut Marketing Business Model works

The Warehouse Receipt System (WRS) was introduced in 2007 with the Warehouse Receipts Act No. 10 of 2005, the Tanzania Cashew nut Marketing Board Act No. 21 of 1984, the Cashew nut Industry Act No. 18 of 2009 and the Cooperative Societies Act No. 20 of 2003. The WRS began as a pilot project in Mtwara and was later expanded to all cashew-growing regions. Since its inception in 2007, the WRS, under the Agricultural Marketing Systems Development Programme (AMSDP), has played a catalytic role in terms of not only improved marketing of agricultural products but also improved agricultural production and productivity, farmers’ confidence, stability of producer prices and technological uptake in Tanzania, despite indications of dissatisfaction among some farmers. The WRS was the government’s effort to ensure a fair and stable market, and specifically to enable farmers to store their outputs at a warehouse and sell them at a later date when prices were more attractive. This system operates through primary societies, farmers’ groups (organisations) and savings and credit cooperatives (SACCOs).

In order to sell in the WRS, a farmer must belong to a primary society. Farmers have the option of selling their cashew through the primary society (part of the WRS). The typical WRS in Tandahimba allows the movement of cashew (produce), services (inputs) and money. Cashew moves from the farmer to the primary society and then to the cooperative society before being auctioned off to exporters and processors. At the same time, services are provided by the cooperative society to AMCoS and eventually also to the farmer. These include the provision of inputs, storage bags, maintaining warehouses, money transfers and transporting the cashews.

In the WRS, farmers use their output as collateral to obtain loans from banks and repay these once their produce has been sold at auction. Producers can thus wait and sell their produce when the market is more favourable. Produce sent to the warehouse is recorded according to quantity and quality and the producer is given a receipt with all the corresponding details.

The receipt is transferable and the producer can receive an advance from the bank representing a percentage of the current market value of the produce. The storage facilities at the warehouse are secure and the producer agrees to pay a fee to cover storage costs. Initially, the primary societies apply for loans from banks to pay their farmers for their cashew before auction and, once the loans have been approved, the cooperative societies are responsible for assisting the primary societies by supplying them with money whenever necessary.

In summary, the following procedures for the WRS are paramount (Figure 7):

- Individual farmers deliver well-dried and graded RCN to the primary cooperative societies and in turn get a receipt indicating the quantity, quality and amount of loan to be secured from bank.
- Primary cooperative societies re-package RCN into standard jute/sisal bags each of 80 kg. The primary societies then deliver the re-packed RCN bags to the regulated warehouses.

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In presence of CBT and respective primary society, before accepting the cashew nut, the warehouse operator undertakes quality test called cutting test. On completion, the respective primary society is issued with certificate of quality assurance (CQA), certificate of title (CT) and certificate of pledge (CP). All these indicate the quantity, quality and lending institution.

The primary society takes CP to the lending institution (usually the bank). The bank issues loan up to 75% of the estimated value of the warehoused cashew nut. Then the primary society takes loan back to farmer to form what is called first payment.

The primary society takes CT to the market usually the sealed bid auctions.

After auction successful buyers (bidders) are given CT and directed to the respective bank to un-pledge the cashew nut. On effecting payments the buyer is issued the CP.

The buyer takes both CT and CP to the warehouse (warehouse operator) and Warehouse operator issues the respective cashew nut to the buyer.

The buyer then exports or processes locally.

5.3. Auctioning Cashew Nuts

The buyers normally quote through inserting prices into a Sales Catalogue and deposits to a Tender box, placed in a known place which is opened at a fixed time and date in a transparent way in the presence of competitive Buyers, Government officials, Union Officials, Bank officials, representatives of Cooperative Societies, Officials from Crop Marketing board and the General public.
The secretariat is composed of officials from the Crop Marketing Board and Union who act as Chairman and Secretary of the auction respectively by preparing the bidding summaries and prepare a report which forms the basis for raising invoices to the Buyers with the highest bids.

5.4. Cashew nut Payments and Price paid to Smallholder farmers

Farmers are normally paid an advance payment and the final payment is paid after the products have been sold through open tender systems established through the Crop Marketing Board. The primary society pays farmers 70% of the price (less the price of next season’s subsidised inputs and community charges). The produce is weighed and graded carefully and a farmer is issued a receipt in triplicate.

Farmers retain the receipt and, after storage and sale at auction by the warehouse management several months later, the farmer is given the remaining 30 percent plus any bonus (less costs of storage, interest, transport and administration). The system also aims to stabilise producer prices, improve technological uptake through provision of subsidised inputs and/or link to farmer credit (SACCOs)42. During the cashew nut season the invoice is raised by a marketing officer, approved by the General Manager and submitted to the Buyers who pay to Cooperative Societies through banks and obtain clearance before collecting the crop from the warehouses. The Chief Accountant is responsible for raising Invoices for collecting the approved levy. Details of the procedures and documentation involved are shown in the respective Marketing and Warehouse Receipt Manuals.

A study by Kilama (2013)43 found out that the suggested price received by farmers per kg of cashew includes deductions associated with operating costs, marketing costs, financial costs and those for purchasing cashew. The operating costs of the primary society, the union and district councils account for most of the costs. The operating costs have been on the rise since the introduction of the Warehouse Receipt System in the 2007/2008 season. While the amounts paid to the primary society and the union were fixed at TSh 50 and TSh 21 respectively, the amount paid as a levy to the district council has been rising and reached TSh 40 in the 2010/2011 season. Marketing accounts for the second highest set of costs, particularly the cost of transportation to the warehouse. Transport costs are twice as high as those the primary society levies. Marketing costs also include shrinkage that is valued at 2% of the suggested price. This is paid, like all the other items, irrespective of whether there has actually been any shrinkage and regardless of the amount of shrinkage44. The study concludes that, the existence of a thin market (one with few buyers and sellers) led to an interventionist approach in an attempt to solve the failure of the cashew market in Tanzania. The WRS gives traders a monopoly and there is therefore the need to disentangle parts of the system to allow for more competition. A monopoly situation tends to create dependency among the excluded and this in turn creates an interlocking market where, for example, farmers find themselves with less control regarding the procurement of farm inputs.

5.5. Achievements of the Warehouse Receipt System Model

The introduction of WRS has45.

- Brought additional bank financing (liquidity) into the sector, as primary societies and cooperative unions have access to independent bank financing; and

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44Kilama, B. 2013, cit.
45Mashindano, et al., 2011, cit.
Reduced the anti-competitive behaviour of large exporters and processors by forcing them to purchase cashews through auction instead of directly from primary societies and cooperative unions.

Other achievements include:

5.5.1. **Improved producer prices**

Evidence from the operations of WRS in cashew nut districts via agricultural marketing cooperative societies and paddy districts via SACCOS reveals that WRS has been a useful marketing tool that has benefited members in terms of market outlets, price stability, better prices, etc. Farm-gate prices have risen in line with export prices, but not fully. In Tandahimba district, WRS producer prices for cashew nuts have improved.

5.5.2. **Protection in times of financial crises**

The WRS protected farmers during the financial crisis even though prices were low (Kilama, 2010).

5.5.3. **Secure and assured means of transporting**

The cooperative society offers a secure means of transporting produce and acts as a quality check when transporting cashew from primary societies to regional warehouses where the auctions take place. Additionally, the cooperative union helps the primary society in selecting the trucks to transport the cashew.

5.5.4. **Farmers receive a constant price**

WRS ensures that farmers receive a constant price throughout the trading season and if the price is high enough, they then receive a bonus as a third payment. Farmers who adopt this system are also assured of receiving subsidized farm in-puts (particularly pesticides and fungicides) that are provided through the primary societies.

5.6. **Challenges of the Warehouse Receipt System**

5.6.1. **Instalment payments**

As a major cash crop, cashew nut is affected by low prices given to the farmer as payment is made in instalments and sometime the second instalment is not given immediately and fully as expected. Some farmers do not want to receive their payment in two instalments, and would prefer 100 percent at harvest in order to pay off pressing labour costs, school fees and other essentials. A study by Kidunda et. al., (2013) in south-eastern Tanzania, found that delay of payment after farmers’ sold their raw cashew nuts to primary society was a major problem faced by farmers.

5.6.2. **Lack of information**

Some farmers feel that the WRS for cashews has poor information sharing to help farmers make decisions. For example, bidding is closed and non-transparent.

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46Mashindano, et al., 2011, cit.
5.6.3. **High Input Costs**

Although most of the cashew crop is exported as raw cashew nuts, and farmers expect high margins, they feel the costs are high, which is most likely due to a lack of incentive to keep costs under control within this buying system.

The high price of cashew nut inputs, especially sulfur dust used to protect cashew from powdery mildew disease, also affects the farmers. A study of AMCoSs in Masasi district by Likwata (2013) found that farmers have no choice on the price since AMCoS lack the knowledge on how to conduct business under the current warehouse receipt system.

5.6.4. **Experienced AMCoS Manager**

When the concept AMCoS was introduced, it was assumed that there are experienced managers to support cooperative and business activities. However, Likwata (2013) found that that this is not the case. Many AMCoS general managers are not experienced in any cooperative activity. The lack of appropriate education for these officials resulted in AMCoS conducting unprofitable businesses as most of these services were delivered without proper knowledge on how to supervise them.

5.6.5. **AMCoS powers for cashew nut at warehouses**

Several studies (Likwata and Venkatakrishnan, 2014; Kilama, 2013) have called for transparency and that members be given a greater say on the fate of their cashew nut available in warehouses. Decisions on who would buy their cashew and at what price should involve AMCoS’ leaders.

6. **Underlying Factors for Success and Lessons Learnt**

The success of the WRS is as a result of many factors. Specific factors include:

6.1. **Increased Farmer Participation**

In total, TANECU Ltd serves a population of 303,648 farmers; 43% are cooperative members of AMCoS, and 57% are non-Cooperative members who obtain service from AMCoS affiliated members of TANECU Ltd. Of these, 159,216 are male farmers representing 52%, and 144,432 female farmers, representing 48% (Figure 8).
6.2. Increased Production

With increased membership, TANECU has seen an increase in cashew nuts brought to its warehouses. The production trend for cashew over the past 9 seasons has grown (Figure 9).

6.3. Future: TANECU Own Processing Plant

TANECU is in the process of purchasing its own processing plant. However, funding has been a problem. Once TANECU starts processing, it is envisaged that smallholders will benefit and increase
their incomes. Once incomes increase, it is likely that smallholders will be able to purchase inputs without the need for loans. This will in turn lead to increased cashew production.

6.4. Support to Small processors

TENACU and other stakeholders also support small processors who are self-initiated groups with affiliations as a result of being related to or living in the same neighbourhood. Many of the groups were women groups. These small processors depend on urban centres around the country and visitors who come to the area for their main markets. The quality standards required for exports are too high so small-scale processors resort to selling at local markets. The need to earn extra income initiated the formation of these groups50. (Figure 10).

Figure 10: Msajili wa Vikundi Vya Kuamili Women Cashew nut CBO in Tandahimba

Raw nuts are placed onto the heated pan. The nuts are heated, with constant stirring to prevent burning. Alternatively, raw nuts are opened and boiled. The nuts are allowed to cool. Later, the shells are removed from the nut. Sometimes, women processors use a mallet to break the hard outer shell. Peeling is done manually. After peeling, the cashew nuts are graded, sorted and then cleaned. Finally, the cashew nuts are packaged in different packaging materials.

Figure 11: Cashew nut ready for peeling by hand

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Unfortunately, the women do not have rubber gloves to protect themselves from the Cashew nutshell liquid (CNSL). Instead, they sprinkle firewood ash onto the floor to neutralise the caustic liquid (Figure 12). The firewood ash also helps to grip the nut. In addition to the danger posed by the CNSL, this method of kernel extraction is very labour intensive and uncomfortable for the women. They would wish to have access to technology that can help them in cashew processing.

Figure 12: Firewood ash is used to protect women from Cashew nutshell liquid (CNSL)

Women are involved in the traditional open pan roasting with minimal equipment requirements (Figure 13)

Figure 13: Cashew nut processing with small machines
The women are able to produce good quality cashew nuts (Figure 14).

Some sell their cashew at the local retail market, packaged in small packs of 200g to 1 Kg as white or roasted (Figure 15).

Processing cashew kernels for the local market has its challenges, particularly packaging materials. Most women groups in the area are using sealed polythene bags. Some small processors are able to buy new vacuum packaging materials sourced by middlemen who buy these from China. These are airtight to avoid the absorption of moisture from the air (Figure 15).

Packing materials that are currently used differ from trader to trader. In some cases, these are well labelled with the group names of the local group (Figure 15).

6.4.1. Problems faced by Small Manual Processors

- Packaging materials, especially bags, are often not available in sufficient quantity. Normal plastic bags are known to affect the quality of the nuts. When available, they tend to be expensive as they are ordered from China.
Marketing of raw or processed cashew nuts in the villages can be problematic. While the groups are ready to invest in new packaging materials, there is no assurance of selling their product. Local processors, especially women groups, are left to find their own markets to sell their products. Due to the current organization of the chain in terms of WRS and auctioning, local processors, especially women, have difficulties in sourcing raw cashew nuts. The locally available packing materials are expensive. Imports take time due to import and port regulations. The government could look into options to reduce taxes on importation of such materials as well as reducing taxes on locally manufactured packing materials.

7. **Policy Implications**

Smallholder farmers produce most of the cashew nuts in Tanzania, yet the current situation discourages farmers from investing in cashew farming and adopting improved technologies. Tanzania lacks a clear provider of credit and farmers mainly depend on earnings from cashew as their sole supplier of credit. Credit availability in Tanzania would therefore be beneficial for producers and a better solution for farmers than the current residual payment system through the WRS. The WRS does not encourage effective and efficient reductions in the transaction costs associated with marketing. Smallholder farmers do not have access to timely inputs and access to good financing in order to improve cashew production. The available type of financial products and credits that are given out to smallholder farmers are inadequate. Borrowing money at 18-22% interest rate to buy larger machinery is not feasible. Additionally, it seems that the WRS has poor price incentives; high prices of inputs particularly pesticides and motorized blowers, which also discourage farmers from adopting improved technologies. While the cashew nut industry in Tanzania has a lot of attractive investment potentials, government needs to support processing. However, cashew nut processing in Tanzania is still in its infant stage. The following should be considered:

- A government initiative of lower cost loans to support processing. Currently there are only two banks (National Microfinance Bank and CRDB Bank Limited) that provide loans to traders and cooperatives in the sector, mainly supporting the commercialization functions of these actors. Government should support a fund that allows processors to get cheap loans to improve value addition to the cashew sector. These loans could be built from the export levy collected by Tanzania Revenue Authority (TRA) from exporters of raw cashew nuts to the Cashew nut Industry Development Trust Fund (CIDTF).
- The warehouse receipt system needs revamping as it disadvantages smallholders who are the producers. Most farmers are also interested in becoming small local processors that can serve local markets. Price incentives play a significant role in farm resource allocation decisions by smallholders. It is important that government comes up with policies that provide incentives to stakeholders in the cashew sub-sector to improve marketing efficiency so that farmers feel secure to invest in the crop.
- Processors and traders need to deal with a number of permits, which they only get if they have access to the network of stakeholders. There are too many licenses and papers to be dealt with in order to buy and export cashew nuts in Tanzania. This makes the business environment in the cashew value chain look complicated and unfriendly to would be investors.
- The role of the CBT needs to be strengthened so it can emphasize its duties in promoting local processing. At the moment, most of its capacity is channeled towards dealing with the commercialization of raw cashew nuts.
- Capacity building (short and long term training, study tours) for staff members at the Cashew nut Board of Tanzania in management information systems, regulations and entrepreneurship will improve the performance of the board.

8. **Conclusions**
Although WRS has achieved the overall desired results, there are several perceived shortcomings, including that it has not addressed the lack of transparency, as a result of closed bidding, and with respect to minimum price settings, it lacks an efficient quality control mechanism, which has impacted the cashew farmer’s income. This is evidenced by that fact that Tanzania still exports mainly raw cashew nuts despite having processing facilities in place. The reasons are certainly structural and a whole set of factors must be taken into account. The Warehouse Receipt System restricted processors, which led to high prices for the raw material and strong competition with raw cashew nut exporters. Under the current system, it is very difficult for processors, both commercial and small-scale, to get loans that would enable them to acquire raw cashew nuts at affordable prices and stock sufficient quantities to maintain continuous processing operations over the year. The locally available packing materials are expensive. Imports take time due to import and port regulations. The government could look into options to reduce taxes on importation of such materials as well as reducing taxes on locally manufactured packing materials.

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