

# The Experience of Community Cereal Banks in Food – Deficit Areas of Semi-Arid Tanzania

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**Abstract-** Community cereal banks have long been acknowledged to have the potential for improving food security in food-deficit areas of Africa. However, the evaluation of their performance reveals that these institutions are not viable in every context. Drawing on the experiences from the food-deficit areas of Kongwa and Chamwino Districts in the semi-arid Tanzania, this paper examines the extent to which the cereal banks have contributed in improving food security in these areas. Data pertaining to villagers' views on the performance of the banks were collected through household surveys, in-depth interviews and focus group discussions in three villages of Banyibanyi, Manchali and Makoja. The findings revealed that contrary to the expectations of improving food security the performance of the cereal banks was dismal. The poor performance is largely attributed to inadequate deposits of cereals, stock decapitalization caused by delays and non-payment of loans, lack of business acumen on the part of the leaders and attitudes of members towards donor assistance. Lessons learnt from the operation of the banks have shown that strategies to address the problem of food insecurity should be demand rather than supply-driven. This is important for ensuring commitments towards the implementation and an overall sustainability of the course. Furthermore, community cereal banks in food-deficit areas that operate as a service to the rural poor have very limited chances of succeeding unless they also adopt a business approach.

**Index Terms-** Community cereal banks, food security, semi-arid lands, Tanzania

## I. INTRODUCTION

Improved food security around the world is one of the main issues articulated nationally and internationally as a top priority for a sustainable development (Witsenburg, 2012). One of the issues of growing concern for the international community is the devastating effects of food price volatility on the most vulnerable populations, which have caused over 300 million people to fall under the poverty line. The other challenge is the recurrence of acute food crises that continue to reverse positive development trends in sub-Saharan Africa (Cortès and Carrasco, 2012). Improving food reserves is among the many initiatives with the potential to improve food security especially in chronically food-deficit areas. It is on the basis of this consideration that cereal banks are being heralded as key instruments for improving food security in developing countries and sub-Saharan Africa in particular.

Despite their widely acknowledged potential as key instruments against food insecurity community cereal banks are

not viable in every context and require certain conditions to adequately function. Indeed, nearly throughout much of sub-Saharan Africa the history of the cereal banks to date is marked by reports of uneven performance records (Cortès and Carrasco, 2012). It is from this realization that this study finds its justification. That is, much as the objectives of establishing such banks are generally related to each other, the actual experiences are both geographic and historic specific, meaning that they differ across both space and time. Therefore, drawing on the experience from semi-arid Tanzania this paper seeks to examine the contribution of community cereal banks in improving food security in these areas.

## II. LITERATURE REVIEW: AN OVERVIEW OF CEREAL BANKS IN SUB-SAHARAN AFRICA

The importance of community cereal banks in improving food security in semi-arid areas of sub-Saharan Africa is widely documented (World Bank, 2011) and needs no further emphasis. These banks can take different forms according to their context but they range from commercial/economic to social objectives (Moise and Bauer, 2013). According to Jatta (2014), the main purposes of cereal banking are in three folds: First, they provide food to food deficit households during the lean period, which also coincides with the farming period. Secondly, cereal banks preserve purchasing power of participating households due to high food prices during lean periods by providing loans food to the participating households. Third, cereal banks act as first-to-reach emergency buffer stocks when disasters occur. There is now a widely held view that, cereal banks act as a community social safety net employed by communities in most arid and semi-arid regions of the world, especially in food-deficit countries or regions (Bosu and Wong, 2012). The establishment of a community cereal banking system has been identified as the most appropriate strategy to break the cycle of food scarcity, soaring market prices, chronic malnutrition, and dependency on food distribution programs. In food-surplus areas on the other hand, cereal banks provide an alternative outlet for farmers who market their grain at harvest time when prices are low. In this way, cereal banks have a dual function: providing food security at the village level and regulating the market (FAO, 1992).

Moussa (2010) and SOS FAIM (2009) reveal that the evolution and practice of cereal banks in sub-Saharan Africa are closely linked to the drought that hit most of the region in the 1960s to the 1990s. Therefore, it is hardly surprising that community cereal banks are a common feature in areas where unreliable rainfall aggravates the problem of food insecurity and the semi-arid areas of Central Tanzania are not an exception. On

the one hand, most of the objectives of cereal banks relate to providing better marketing services for farmers and consumers at the village level (Dramane Mariko et.al, 2012). On the other, cereal banks are thought to have the potential to contribute to commodity-price stabilization (Deaton and Laroque, 1996). In this way, decentralized storage of cereals has a profound advantage in the sense that it offers poor people access to food and it links them to the cereal market, and thus, enhances livelihoods. In areas where membership to the cereal banks is voluntary, these institutions may be conceived as part of participatory community development approaches for responding to chronic problems of food shortage in rural areas.

Despite their importance, the establishment and operation of cereal banks are not without challenges. For example, beginning the 1990's, most of cereal banks that had been established in the 1980s in many Sahel countries had stopped their activities due to management problems, embezzlement or a certain ambiguity of their social role (SOS-FAIM, (2009). Poor performance of the cereal banks have sparked an intense debate which have led some people to question the relevance of these institutions. For example, according to Kent (1998) some of the assumptions that justify the creation of cereal banks are false and that in the context of the market economy cereal banks do not have a global advantage over the private commercial sector to guarantee the distribution of cereals in the absence of structured subsidies. As a result, many cereal banks have not succeeded to displace private traders. This observation is perhaps most relevant to cereal banks established in food-deficit areas where such instruments operate more as a service than a business venture. In the absence of subsidies such cereal banks have not managed to supply villages with cereals at prices lower than the price fixed by traders because stockpiling cereals is costly.

Dramane Mariko et.al, (2012) also argues that many cereal banks failed because they lacked adequate warehouses for storing grains, limited operating capital and lacked of sufficient training for managers. The problem of limited operating capital is further exacerbated by the fact that most cereal banks sold or lent grain to their clients below the prevailing market prices. However, while cereal banks provided an easy access to grains at low prices to clients, such convenient services appeared to eventually compromise the sustainability of these cereal banks. This problem is more pronounced in chronically food-deficit areas and has been one of the issues which compromise the sustainability and cost-effectiveness of most community cereal banks.

### III. METHODS

This study was conducted in Chamwino and Kongwa Districts located in Dodoma Region in Central Tanzania. A total of three cereal banks were selected the first being Banyibanyi village which was selected from Kongwa District, and the other banks in Makoja and Manchali villages which were selected from Chamwino District. The basis of the selection was the different management approaches which, to a greater extent, have an influence on their performance.

A combination of data collection methods was employed and these included in-depth interviews, focus group discussions and household surveys. In-depth interviews had involved leaders of the cereal banks and other 18 members were conducted to obtain

information on members' experiences in using the cereal banks. In addition, two more in-depth interviews were conducted with staff of INADES Formation, - a non-governmental organization which sponsored the establishment of several cereal banks in Dodoma Region. Besides the in-depth interviews, six focus group discussions were held with members of the cereal banks who were picked purposefully based on their knowledge of the history and performance of these institutions. Focus group discussions were used to solicit information on the contribution of cereal banks in improving food security in their respective villages. Each group ranged from eight to twelve members of both sex.

A household survey involving 180 respondents was also conducted for the whole study. From each village 60 households were randomly selected to form the total number of respondents for the survey. In total female respondents were 104 (57.8%) while males were 76 (42.2%). A household questionnaire was designed to collect opinions on the extent to which the cereal banks had contributed to the improvement of food security in their respective villages. Household survey results were used to cross-check and validate the findings of the in-depth interviews and focus group discussions.

### IV. FOOD INSECURITY IN SEMI-ARID TANZANIA

Agriculture is the main economic activity in Chamwino and Kongwa Districts and provides households with food and cash income. Major crops grown include maize, sunflowers, sorghum, millet, sesame, banbara groundnuts, cow peas, sunflower, pigeon peas, cucumbers and water melons. The scale of production of all these crops is highly determined by the amount and pattern of rainfall which is mostly unreliable and inadequate for agricultural production. Chamwino and Kongwa Districts are characterized by semi-arid conditions with an annual rainfall ranging between 500-650mm. The rainy season is from November to May. In addition to crop cultivation, the inhabitants of the two districts keep livestock which have both socio-cultural and economic significance. Livestock, especially cattle, is a symbol of wealth and a source of prestige and for this reason may not be freely exchanged for cash income or food items even during times of food shortages. Other economic activities undertaken in the study villages include making and selling charcoal, weaving, petty trading, and bee keeping. Food supply to some households is also supplemented by the seasonal migration to neighbouring urban centres and some productive rural enclaves. Mascarenhas (1977) underscores this and argues that mobility, both spatial and social, has been a key feature in the livelihood adaptation among the inhabitants of Chamwino and Kongwa Districts.

Chamwino and Kongwa Districts are among the highly food insecure areas in the country and this partly explains the prevalence of incidences of poverty which are considered higher than the national average. Food insecurity is thus a developmental challenge contributing to rural poverty among agro-pastoral communities. Seasonality with respect to production and availability of food is very pronounced in the two districts. In addition, during the rainy season food is available for most villages but the quantities are not large enough to take the producers into another season. In extreme cases of food shortages, some communities depend on government and donor

assistance for food reliefs. This is also an area where the involvement of local and international non-government organizations is very conspicuous as they engage in promotion of marketing, food security cereal banks and women empowerment. Food insecurity in semi-arid Tanzania is largely a manifestation of low availability of food stuffs caused by a low production and poor management of post harvest crops. In such situations where food production is far below the average household requirement and many other components of food insecurity, especially food nutrition is affected. In addition, with low levels of production problems related to inaccessibility and affordability of food become almost inevitable. Therefore, low food production is a fundamental problem to food insecurity. The causes of food insecurity in these ecologically fragile semi-arid areas are well documented (refer to Liwenga, 2003). Factors such as low agricultural productivity of land caused by low and unreliable rainfall, an inadequate supply of farm labour in the production of food have been highlighted as among the major causes of food insecurity. Land degradation due to a continuous utilization of resource poor lands is another contributory factor for food insecurity. Opportunities for the development of non-farm activities are also severely limited by poor transport infrastructure, and this means that livelihoods of the majority of the people are largely tied on working on land resources.

To some households in the study areas food insecurity is contributed by the inadequate labour allocated to food production. In a semi-arid environment farmers are caught in a problematic situation of shortage of farm labour during critical moments. Plowing, just like planting, is sensitive to moisture and neither should be done when soil is either too wet or dry. It is common in the arid and semi-arid areas for proper moisture conditions to occur only at the beginning of the rainy season and planting should be done on the same day (Creswell and Martin, 1993). The planting period begins when most households face the problem of food shortages. Such households become trapped in a dilemma of having to choose between working on their farms and selling their labour in an exchange of the much needed food for their households. By opting to sell their labour as means of survival, it deprives their farms of the much needed and critical farm labour input. This is actually what leads to low production and crop failure among the already food deficit households. Therefore, the problem of food insecurity in these parts of the country is exacerbated by a combined effect of poor timing of tillage and planting, unavailability of household farm labour, shortage of food at the household level during the farming season.

In the past, traditional security systems had provided a cushion for the food insecure and starving households. Such households were able to benefit from the strong social ties established with both their families and community members. These systems, which were sustained through reciprocity provided cover to the poor during the times of difficulties amongst other obligations. Recently however, and following the mix of ethnic groups these traditional mechanisms have almost disappeared and have now been replaced by more commercial oriented networks, thus, exposing the communities to incidences of food insecurity.

The extent of food insecurity differs from one household to another and the concept of food gap was used to measure food

availability in the study villages. A food gap or commonly known as the lean period represents the number of months in the year in which a household face difficulty in providing an adequate food or money to purchase food for consumption (Bosu and Wong, 2012). Table 1 shows the percentage distribution of respondents by extent of food gap.

**Table 1: Percentage Distribution of Respondents by Food Gap (months)**

Village	8 months (Oct-May)	6 months (Dec - May)	4 months (Feb - May)	2 months (Apr - May)
Manchali	10	22	30	38
Makoja	15	20	25	40
Banyibanyi	5	8	25	62
<b>Average</b>	<b>10</b>	<b>16.7</b>	<b>26.7</b>	<b>46.6</b>

The problem of food insecurity is also not felt uniformly between and within villages. Instead, there is a wide variation in the number of months with adequate food at household level. Nearly all households would have some food from the beginning of the harvest period in June which takes them into October when food availability begins to fall short. This is a group of farmers whose production of foods is low due to their engagement in selling farm labour to obtain food and others who usually sell all their food crops to obtain cash for household's requirements including food. Another 16.7% and 26.7% of the respondents had a food gap of 6 months and 4 months respectively.

On average, nearly half of the households (46.6%) had a food gap of two months, that is, they faced food shortages only in the last two months of April and May before the next crop harvest in June (Table 1). Among these, there are also those who purchase food from other villagers and stock it either for future use or immediate sale. The difference in food gaps among villagers also means that they have different expectations from the cereal banks for the supply of foods. This is an indication that the food situation is relatively better than in the other two villages. The main reason for the difference is that Banyibanyi village is endowed with good soils and abundant rainfall compared with the other two villages and food production is relatively higher than the other two villages. This partly explains why Banyibanyi village has a successful community cereal bank compared to the other two villages.

Apart from household level strategies to cope with the problem of food shortages, the government and some local and international organizations have put in place programmes to address the same. In particular, the World Vision, Inades Formation, Rural Livelihood Development Company, World Food Programme and other religious based organizations have been involved in providing food reliefs, community empowerment, and capacity building services for the production and marketing of agricultural goods. Perhaps a more notable initiative for addressing food insecurity has been the establishment of community cereal banks.



## V. ESTABLISHMENT AND OPERATIONS OF CEREAL BANKS IN SEMI-ARID TANZANIA

Community cereal banks in Chamwino and Kongwa districts were established as part of the response to the problem of food insecurity in the area. The three banks covered by this study were established between 2006 and 2009 with the assistance from INADES Formation and Intermon Oxfam who provided seed money for the construction of the warehouses and initial stock of cereals. According to officials of INADES Formation, the major objective for the establishment of the banks was to improve food security for the rural communities in the two districts. It was envisaged that, by storing foods during the harvest period the prices of the major cereals, especially maize would be stabilized, and thus, allow farmers to purchase it at relatively affordable prices during the lean period.

In addition, stock-pilling of cereals was meant to contribute to the reduction of the overuse of such foods during traditional ceremonies on the start of the harvest period. Traditionally, like throughout much of sub-Saharan Africa, the pattern of ceremonial festivities such as weddings and puberty rites among the communities in semi-arid Tanzania revolve around the farming cycle. Such ceremonies are mostly accompanied by the consumption of large quantities of cereals especially maize and millet (in the form of solid foods and beer). Preparation of alcohol during these festivities is considered as a form of giving of thanks to the ancestors for successful grain harvest. These are kind of ceremonies that even the food insecure households find themselves obliged to perform. All in all, these practices have been associated with food insecurity because of what may be argued as unnecessary use of large quantities of cereals within a very short period of time. Therefore, in order to address the problem of excessive use of cereals and the need to stabilize the prices of cereals community, cereal banks were deemed necessary.

### *Cereal deposits*

The basic principles of operating community cereal banks require members to deposit cereals when they are in abundance and with the prices at their lowest. Such deposits are made in anticipation that members will buy them during difficult times, but certainly, at lower prices than what the opportunistic middlemen would have demanded. In situations where the banks have enough stock, members are allowed to borrow cereals and payback with a small interest during the harvest season. Again, the margin of profit is kept to affordable levels so that many more people can be accommodated. When this cycle of "purchase-store-sell" has been completed, automatically the prices of cereals will have stabilized between seasons. Therefore, once the initial investment is made in the form of start-up stock or capital to purchase stock, the banks become self supporting of the interest of the members.

Community cereal banks in food-deficit areas like those in Chamwino and Kongwa Districts face a dilemma in attracting cereals deposits. On one hand, the entry shares of 1-5 bags of any cereal is kept deliberately at low mark just to attract as many food-insecure households as possible, but then this has not attracted large enough quantities to stockpile the banks. On the other hand however, there is a well founded fear of few members dominating the banks with their large deposits. In effect, such a

dilemma contributes to the problem of stock capitalization. Low stock deposits are further exacerbated by a growing number of defaulters who either take long to repay the loans or do not pay back altogether.

### *Management of cereal banks*

Each of the three cereal banks in the study area presents different management approach. To some extent these approaches have an influence on the efficiency of the banks. In Manchali village, for example, membership to the bank is limited to only 27 farmers. By any consideration this is a small group (interest group) of people but they have demonstrated a great deal of commitment in making sure that the bank stands. These are the same people who participated actively in the construction of the bank (with assistance from Inades Formation) right from the initial stages. Since then, they have been enjoying a full monopoly of the bank and have set a very high entry fee of Tshs 150,000 (about US\$ 100) which is well beyond the reach of the majority of the villagers. This has been made deliberately high to keep off more people from joining the bank. The lesson that can be picked from such an experience is that the bank has very committed members who work hard to contribute to the development of the bank. Indeed, this partly explains why this bank is fairing relatively well compared with other banks in Chamwino District.

The cereal bank in Makoja village has not been successful to any appreciable degree. The main reasons for the dismal performance lie in the manner in which the bank was established and the subsequent management approach. Intermon Oxfam gave cereals to the village community as start-up capital for the cereal bank. Therefore, the bank was operated by the village community which chose leaders to manage the institution. The basic qualification was simply for one to be hardworking, trustful, and able to read and write, unless business skills were not considered as being very important. The cereal bank in this village was conceived to belong to the whole community and for this reason it did not invite any individual commitment. Intermon Oxfam who provided the seed money was looked upon as lifeblood for the prosperity of the bank. After the withdrawal of Intermon Oxfam, the cereal bank began to face difficulties of inadequate funds to purchase cereals and persistent defaulters among members began to emerge. Members of the bank still feel that they can get more cereals from sponsoring agencies. Therefore, at the root of the problem facing cereal bank is that there simply not enough cereals to deposit. This is further compounded by the attitudes of community members on the role of sponsoring agencies. There is very little that the villagers gain from the bank because the prices are nearly the same as those at the wider market.

The cereal bank in Banyibanyi village operates on business principles but also provides services to the poorer households. On the one hand the bank invites well-off farmers to store their cereals in the banks' warehouse by charging them some fee. This system generates some revenue which is ploughed back into the bank. Allowing villagers to store their cereals serves two purposes. First, it stores cereals for the poor households who do not have dependable storage facilities at their homesteads. Second, having their cereals stored at the bank keeps the owners away from the unnecessary diversion of foods (sale, or donation

of social nature, celebrations). In this way the bank is making some money by storing cereals of individual farmers. On the other hand the bank purchases cereals which are later loaned to the needy households on an agreement that they repay during the harvest period. An average of 30% of the deposited amount is charged as interest. Operating under Cooperative Law the cereal bank in Banyibanyi has a governing board; a manager and the rest of the members form the members' council. The experience from Banyibanyi cereal bank clearly shows the importance of combining business and service which are important components for the sustainability of the institution.

**Perceived importance of cereal banks to the communities**

An overall assessment of the contribution of cereal banks in improving food security in semi-arid areas of Tanzania shows that these institutions are plagued with host of constraints which make them to fail to achieve their intended objectives. This situation in Chamwino and Kongwa Districts is a true reflection of what is taking place in most parts of sub-Saharan Africa. Cereal banks in most parts of Africa have received mixed reviews. Some scholars (e.g. Kent, 1998) believe that these banks have failed to improve food security while others (e.g. Msaki, et al. 2014) argue that the banks have made some contribution in cushioning smallholder producers from extreme food shortages.

A well-functioning cereal bank must have stocks of commodities which members can access at times of food shortages. Alternatively the bank must have enough cash to purchase cereals to be sold to bank members whenever the needs arise. Availability of such stock is dependent on members depositing cereals either from own production or purchase. It also depends on the borrowers honouring the loan agreements by paying back the cereals together with the small profit. The findings of this study reveal that, on average, the majority of the farmers can hardly harvest more than 10 bags of maize per growing season. In effect, it means there is very little or virtually nothing to deposit in the cereal banks. The banks, especially those in Manchali and Makoja villages experience long periods

of inactivity largely because of low supply of deposits and at the same time others failing to repay the loans.

The lean period in the study area coincides with the farming season and this is the season when farmers rely on markets for their food supply. In the absence of food during this period, the poorer households become bonded labourers and forced to offer their own labour to work in other people's farms in exchange for food, credit or money to buy food. In this way, the smallholder producers find themselves disengaged from their own production resulting into a vicious cycles of indebtedness, low production and poverty. Therefore, having cereal banks for the purpose of fighting food insecurity is a novel idea. However, this seems to work better in situations where there is a certain level of production. A member of the cereal bank in Makoja village wondered "*how can one think of banking the cereals when there is not even enough to eat?*"

On the basis of evidences obtained through household surveys, in-depth interviews, and focus group discussions, community cereal banks face a number of constraints. These include, for example, inadequacy of deposits from farmers, dependency syndrome among villagers, delays in payment of loans, and management problems. Sanfo, (2011) offers an insightful caution that cereal banks are not business ventures and should as well therefore be judged based on their social role they play in society. This however does not negate the fact that the main objective of cereal banks is to improve food security and it is on this basis that the banks should largely be judged on.

The majority of the members of the cereal banks perceive these institutions to have failed to achieve their intended goals. Some 90 per cent of the respondents reported that cereal banks had been unsuccessful in improving food security in their households (Table 2). None of the members reported any appreciable level of success of the banks in improving food security and this is primarily because of the fact that there are not enough cereals to bank.

**Table 2: Perceived Importance of Community Cereal Banks to member**

Attributes of success	Highly successful	Successful	Neither Successful nor unsuccessful	Not successful	Completely unsuccessful
Food security	0	0	10	80	10
Price stabilization	0	6	8	82	4
Social capital formation	0	26	65	7	2

As for price stabilization, only 6% of the respondents reported that the cereal banks were successful. Another 82% were of the opinion that the cereal banks had not succeeded in stabilizing the price of cereals between seasons. Without enough stock to take the farmers to the next season, it means at some point they will be forced to purchase additional foods for their household requirements outside the system of cereal banks. Actually, all the three banks have never had deposits that equal the start-up stock given by sponsoring agencies. Without enough cereals to the banks, the food-insecure households are forced to seek solutions outside the cereal bank system which in fact leads them to succumb to the opportunistic middlemen.

In some ways however, the community cereal banks were reported to have contributed to the formation of social capital among the members. There was a feeling among respondents that bank members were likely to help each other than non members in some social matters, including food exchange (though not through the bank channels). Some 26% of the respondents appreciated this contribution (Table 2).

An extreme case of Makoja village is taken to get deeper insights on the opinions of different wealth categories. Table 3 presents the views of respondents on food security by wealth categories. Households suffer in varying degrees from the problem of food insecurity, and hence, adopt different strategies

to address the situation. Overall, a total of 80% of the respondents in the three wealth categories reported that the cereal banks had not been successful in the improvement of food security.

**Table 3: Opinions on the contribution of cereal banks to food security by wealth categories in Makoja village**

Wealth Categories	Highly successful	Successful	Neither Successful nor unsuccessful	Not successful	Completely unsuccessful
Well-off (6%)	0	0	4	2	0
Better-off (22%)	0	0	6	16	0
Poor (48%)	0	0	0	46	2
Very poor (24%)	0	0	0	16	8
<b>Total</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>80</b>	<b>10</b>

Undoubtedly, Table 3 shows that the cereal banks were only marginally successful for the well-off and the better-off. This is perhaps hardly surprising because these wealth categories have the ability to bank considerable amount of cereals compared to the poorer members. Having enough to bank also means they expect some profits when the cereals are resold. In fact, none of the members in these two wealth categories had rated the banks as completely unsuccessful. As for the ‘poor’ and ‘very poor’ respondents these rated the cereal banks as not successful (46%). This is perhaps an expected opinion especially in situations where members in these wealth categories had not enough cereals to bank. In addition, being poor also means that their purchasing power is also limited. In this way, it is not surprising that they rated the cereal banks as unsuccessful in addressing the problem of food insecurity in their localities.

**Lessons from the cereal banks in semi-arid Tanzania**

Four important lessons can be learnt from the experience of cereal banks in semi-arid Tanzania. First, the results from focus group discussions in Makoja village revealed that the idea of cereal banks as a strategy of improving food security was not the villagers’ choice. For this reason, the banks were bound to fail because they lacked sustainability elements in terms of commitment and support from the local communities. Therefore, unless the establishment of a cereal bank is based on a commonly felt need in the village, these tools stand little chance of success.

Second, like elsewhere in sub-Saharan Africa, cereal banks which were established in the poorest and chronically deficit areas are more likely to collapse than those in areas where there is ample production. In the former case, the low purchasing power among the food –insecure households and the consequent social pressures to extend credit undermine the banks. Actually, the failure to deposit adequate amount of cereals and the consequent effects of being unable to borrow is a result of a trap in the cycle of food poverty in which most farmers find themselves into. This is the trap which the cereal banks in semi-arid Tanzania have failed to break.

The condition of farmers and indeed the motives for the establishment of cereal banks in semi-arid Tanzania are in stark contrast to those in Western Kenya. In the latter case the cereal banks are located in areas where there is production of substantial crop surpluses but with farmers trapped within a “good season, poor market” dilemma. With large quantities of cereals the prices are extremely low and few facilities are available to smallholder farmers to store their crops for several

months. This is a difficult environment for farmers who lack capital, access to market information and transport (Coulter et al, 2000). Therefore, in order to shield the farmers from opportunistic middlemen who pay extremely low gate prices, community cereal banks become inevitable Mukhwana (2003). In semi-arid Tanzania on the other hand, the good seasons are spaced too far apart to generate enough cereals for sustaining the banks, let alone cereals for household consumption. This accounts for the differences in performance of the banks.

Third, the importance of managerial skills in successful operation of cereal banks cannot be overemphasized. Although there are arguments that such banks are not business ventures, they cannot however be run like charity organizations; instead, they have to generate some profits to cover the operational costs. Unless they do so they will run into the problem of stock decapitalization. This further underscores the need for cereal bank managers with business acumen. Furthermore, leaders with managerial skills are necessary to arrest stock decapitalization caused by delays in recovering or non-payment of the debts. Experience has also shown that where cereal banks are operated by “interest groups”, they have a higher chance of succeeding. This is also experienced in Chad (Dramane Mariko et.al, 2012) where profit oriented cereal banks operated by “interest groups” registered success than those banks run by communal leadership. Fourth, part of the reasons for the failure of the cereal banks is the dependency attitude which villagers have developed towards donor assistance. This attitude is in the form of dependency syndrome, a concept used to refer to a condition where members of a community modify their social and economic behavior in anticipation of some aid, in this case food aid, (Lind and Jalleta, 2005). The effect becomes more noted where beneficiary households depend on external assistance to the extent that they reduce engagement in other livelihood activities that could enable them to become food self-sufficient. When such food is given nearly for free, it breeds reluctance to participate in community projects even if this is for their own benefits. Linking this phenomenon to the situation in the study area, we note that the cereal banks in semi-arid areas of Tanzania were established in communities where people were used to receive food reliefs from the government and donor agencies during times of difficulties. As a result, some form of dependency syndrome has developed and still persist among the people and this has contributed to perception of the cereal banks as a form of social charity from which food may be obtained with ease.

As part of the donors' strategy to create a sense of ownership of the community cereal banks, the members were required to contribute to the construction of the warehouses. This contribution was only in the form of labour (for collecting building materials and making bricks). To date, some members in Makoja village still harbor arguments presented by one villager that .... *'If they (the sponsoring agencies) were able to provide seed money to buy the cereals, and expensive building materials, definitely, they cannot fail to do the same in paying for labour and giving us more cereals to our ailing banks. Had the donors met all the expenses, it wouldn't have been possible for few volunteers (villagers) to monopolize the bank as we see today'*. The cereal bank in Makoja village which is managed communally faces difficulties in recovering the loans because some members do not feel obliged to pay back their loans for what they consider assistance from donors.

Therefore, an overall lesson for community cereal banks is their failure to perform due to lack of sustainability. Indeed, this is not uncommon, elsewhere Kent (1998) reports that the track record of cereal banks regarding sustainability is poor because over 80% of the 1,500 cereal banks created in Burkina Faso before 1991 went bankrupt within five years of their creation, and estimates from Niger indicate a 90% failure rate for cereal banks.

## VI. CONCLUSION

Cereal banks remain potentially important instruments for improving food security and market stabilization in food-deficit areas. However, evidence from the study area shows that most of these banks remain unsustainable and have dismal performance largely due to inadequate supply of cereals. With low level of deposits coupled with delays or non-payment of the loans, the banks frequently experience the problem of stock decapitalization thus remaining inactive for long periods of time. This partly explains why most respondents felt that the cereal banks had not helped in improving food security in their areas. Indeed, this is a typical problem of most cereal banks in food-deficit area where they operate as a service to the communities. Unless these cereal banks adopt a business approach, they will remain white elephants in their areas.

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