



## The Relief Food Aid and its Implications on Food Production and Consumption Patterns: A case study of Communal Farmers in Chigodora Community, Zimbabwe

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### ABSTRACT

The research study focuses on the effects of relief food aid on food production and consumption patterns of communal farmers in Chigodora Ward 15, Mutare District. The researcher adopted a descriptive research design. Data collection instruments used in this research study included questionnaires, interviews as well as published documents. Questionnaires targeted households in selected villages. The researcher used a cluster sampling strategy in selecting villages and random sampling technique was used to select households from the selected villages. Interviews targeted key informants such as the Agritex Extension Officer, Mutare Rural District Council Social Services Director, and Chitakatira Health Care leader, Ward 15 Councilor, Plan International Selection Director and The Village Heads. Key informants were selected using purposive sampling technique. Research findings from this study have established that relief food aid beneficiaries in Chigodora Ward 15 receive maize, beans, peas, cooking oil and porridge on a monthly basis. Plan international is the only humanitarian organization which supplies food in the community. Since the involvement of food aid agencies in Chigodora, the production of indigenous crops such as finger millet, sorghum and rapoko significantly decreased. The major factors driving the persistence of relief food are HIV and AIDS, climate change, lack of fair distribution of farming inputs, the restructuring of the agricultural system and high dependency syndrome. Short term impacts of relief food aid on food production and access include impacts on local taste, promotes laziness and compromises access to local foods. The long term impacts of relief food aided are; overall decrease in food production, disincentives on farmers to produce and exposure to low quality and unsafe products. The suggest the government of Zimbabwe needs to adequately assist and empower communal farmers to produce enough food from their fields through modern technologies as well as providing farmers with loans for inputs such as fertilizers, pesticides and equipment to improve productivity.

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### 1.0 Introduction

Food security in Zimbabwe has been at the center of development goals since it reached independence in 1980 (Dabale & Chiringa, 2014). However, due to land reform challenges, HIV and AIDS and severe droughts, there has been a major food crisis in the country resulting in a need for foreign aid in the form of relief food aid. The role of foreign aid in alleviating poverty and increasing the growth of developing countries has drawn a substantial amount of attention (Small, 1991). Many scholars have agreed that foreign aid is an essential strategy to stop the

cycle of poverty in developing countries, while those opposing this statement have stated that foreign aid has instead caused underdevelopment in developing countries (Feeny, 2005). This paper addresses the ongoing debates between policy makers and development practitioners concerning the effectiveness and efficiency of food aid based programmes in developing countries, which have led to divisions in development organization programmes design and focus (Coke, 2009). In most studies, researchers have revealed that food aid was not required and that it actually caused more harm than good (Leathers, 2004). These studies have led development practitioners and policy makers to investigate whether investment in agriculture production (external agricultural assistance) is more sustainable and effective than supplemental feeding programmes and the distribution of food aid (Clay, 1991). In terms of theoretical significance, this study seeks to investigate the possible impacts of crediting relief food aid programmes as a major solution to tackle food insecurity issues in poor communities.

Zimbabwe is considered a low-income, food deficit country, which has been ranked at 156 out of 187 on the 2014 UNDP Human Development Index (Tawodzera & Crush, 2016). Seventy-two percent of the country's population live below the national poverty line, with rural poverty having increased from 63% in 2003 to 76% in 2014 (Tawodzera & Crush, 2016). In addition, food production has been affected by various factors including natural disasters (droughts), political and social instability as well as the restructuring of the agricultural sector (Nelson Marongwe, 2002). Zimbabwe, formerly heralded as the bread basket of southern Africa has undergone major land reform changes that have led to numerous arguments regarding the impacts of the land reform programme on poverty reduction in the country. The Zimbabwean Government embarked on a land reform programme to correct past injustices, based on race over land ownership in the country. These efforts occurred in two phases, from 1980-1997 based on a "willing seller/willing buyer" approach, later being abandoned for a process of radical land reform, which was called the Fast Track Land Reform Programme officially implemented in July 2002 as part of the second phase (Nelson Marongwe, 2002). Although the land reform programme was meant to emphasize poverty reduction, the Fast Track Land Reform Policy has been critiqued for not prioritizing poverty reduction as a driving agenda of the programme, as 43% of the beneficiaries given land had steady incomes from other sources and hence did not qualify to be called poor or landless (Nelson Marongwe, 2002). In addition, the land reform programme has left beneficiaries without ownership papers and a lack of support which has left beneficiaries with major land reform challenges (Cliffe, Alexander, Cousins, & Gaidzanwa, 2011). However, these views are subject to rejection, as there are opinions that are in favour of the land reform process and feel it has led to poverty reduction and empowerment of the poor (Dabale & Chiringa, 2014). In this light, many scholars have encouraged a need for local people to produce their own farming outputs and use the land they were given to produce crops such as maize and beans as this will empower local communities to generate their own income and therefore reduce poverty. As a result, the reliance of food aid from foreign countries has been discouraged as it is said to have negative impacts, such as; a decrease in food production, disincentives on farmers to produce and exposure to low quality and unsafe products. Furthermore, a reliance of food aid can also promote laziness and encourage a dependency syndrome (Awokuse, 2006).

The first discussion concerning food aid in an international forum can be traced back to the Seventh Session of the Food and Agricultural Organization (FAO) Conference in November 1953 (C. B. Barrett, 2006); (Konandreas, 2005). The conference paid special attention to the increasing challenges encountered in absorbing the surplus of cereals rapidly accumulating in North America (Commodities & Division, 1985). These difficulties resulted in adaptation of measures and legislation of surplus disposal by the United States of America. However, there were concerns that if these measures were to be applied in light of national interests, they could threaten development of international trade. After its review of the situation, the conference concluded that, in accordance with FAO's basic aims, the absorption of excess supplies was to be sought by adopting policies for increasing consumption in developing countries. In 1954, FAO launched a research on surplus disposal of cereals, such as maize, which initiated some creative ways of making appropriate uses of food aid to address humanitarian needs in developing countries and was the first major step in the conceptual evolution of food aid towards its eventual food security role (Nunn & Qian, 2014).

Oroma (2010) noted that the establishment of the World Food Programme (WFP) under the UN General Assembly resolution in 1962 marked the beginning of relief food aid. The first move in this direction was the UN General Assembly. The next milestone was the Food Aid Convention (FAC) in 1967 that comprised of two main instruments, which were the Wheat Trade Convention and the International Grains Agreements and were reinforced by the recommendations made by the 1974 World Food Conference (Thomson & Metz, 1999). Currently, food aid is now being distributed in many parts of the world especially the most droughts and war affected developing countries including those in Sub Saharan Africa ((Awokuse, 2011); (Chipika, 2006); (Abdulai, Barrett, & Hoddinott, 2005); ). Rupiya (2004) noted that the African continent is the only region in the world that has not been able to nourish itself since the mid-1970s. Food Insecurity and Vulnerability Information and Mapping Systems (FIVIMS) in 2006 estimated that approximately 840 million people in developing countries were malnourished and were in need of food aid. Many countries in Africa are now receiving different types of

food aid from the USA, Canada and other donors, but little research has been done to expose the short and long term impacts of different types of food aid in Africa. The nature and frequency of distribution of food aid in different parts of Africa differs from region to region, since the degree of vulnerability varies. The war hit areas such as Somalia receive food aid more frequently than less vulnerable nations such as Zimbabwe and Zambia.

In this regard, it is critical to understand relief food aid in consideration of the above analysis, it is crucial for governments to promote food aid policies that will reduce severe dependence on humanitarian assistance and encourage and motivate local home grown solutions to tackling food insecurity at different levels. Zimbabwe, once an exporter of food surplus is today in most communal areas dependent on food aid, an unfavorable state of affairs that must be investigated for proper interventions to occur in an attempt to create a more favorable environment to produce sufficient food for the nation and surplus for export. The humanitarian system must be monitored so that it is adequately able to deliver at the appointed time, effective assistance on the basis of need only. It should be noted that aid must support people's livelihoods as well as meeting the immediate needs of vulnerable communities (Oxfam International, 2006). In addition, the quality of food provided should be of higher nutritional value, comprising of cereal, pulses and oils for example. It is also important to note that cereals may be distributed as grain that requires milling or it may be distributed in its processed form such as mealie meal or flour. Special groups like school children, malnourished children or chronically ill beneficiaries may be given as rations. Cereals are either barley, rice, maize or wheat depending on the cultural preferences of the host beneficiary. This line of thought has over the years been violated by donor nations, who provided cereals culturally unacceptable to recipient communities (ORAP, 2010).

The importation of food aid into Zimbabwe more than tripled between 2003 and 2009, with much of deliveries targeting vulnerable communities who were hit by severe food shortages (Mudimu, 2003a). Chiweta (2012), agreed with the assertion that trends observed in the time series data reveal that commercial cereal food imports and cereal food aid inflows to Zimbabwe had been increasing between 1988 and 2008. Domestic cereal food production levels, however were observed to have been declining within the same period. Over the recent years in Zimbabwe, hyper-inflation, acute shortages of basic supplies and a series of very poor harvests have led to serious food shortages and acute food insecurity (Young, 2013). These factors have contributed to increasing levels of vulnerability and the situation necessitated large-scale humanitarian food assistance operations in the country (FAO, 2011). In many communal areas in Zimbabwe relief food aid has been distributed constantly, even in areas which have relatively favorable climatic conditions that support crop production. A typical example of a community where relief food aid is operational constantly despite the favorable conditions is Chigodora Ward 15 in Mutare District. The study aims at investigating whether food aid is complementing or substituting communal agricultural production and interfering with consumption patterns amongst communal farmers in Chigodora Ward 15.

Food aid is often criticized for a lack of timeliness, high cost of delivery as well as influencing levels of production and consumption patterns in recipient countries (C. B. Barrett, 2006). In research conducted by Haddad and Frankenberger (2003), relief food aid compromises the level and patterns of local food production. According to Chipika (2006), food aid in general has no impact on market prices since the huge inflow of food aid did not substantially affect market prices. Instead food aid complements commercial imports rather than displace them as the food aid is not large enough to meet the food shortfall. However, (Mudzonga & Chigwada, 2009) argue that food aid made available to vulnerable farm workers and the rural poor has diluted the economic incentive for them to seek and to value farm employment, which is normally poorly paid. Since 1994 Chigodora Ward 15 Community has been receiving relief food aid, but the number of vulnerable households in need of food aid dramatically increased between the years 2005 and 2008 (Chiweta, 2012). By the year 2010 relief food aid had become a permanent feature in the area with food donors such as Plan International supplying food. Chigodora Ward 15 falls under agro-ecological zone 1 which is characterized by highly favorable climatic conditions that are suitable for crop production. On the contrary, relief food aid in Chigodora has been constantly supplied despite the favorable conditions which are suitable for intensive crop production. The state of affairs clearly exposes that there is indeed need for research to gain an in depth understanding of factors driving persistence of relief food aid in Chigodora Ward 15 community. There is limited pragmatic work done in Chigodora to demonstrate the effects of food aid on household consumption and food production. Therefore, this study is essential as it seeks to investigate and provide insights on the short and long term effects of food aid in Chigodora Ward 15, especially with regards to the effect of food aid on domestic food production and consumption patterns.

The Chigodora Ward 15 community will benefit from the study as it will assist them in understanding the long and short term effects of relief food aid programmes. The research study will act as an eye opener to many communal farmers in the Chigodora Community. The research study will help communal farmers in Chigodora understand whether or not the objectives of donor aid in their community conflicts with their own. The

recommendations which shall be presented at the end of the research project will help Chigodora community to solve various problems presented. This study is important, because it evaluates a problem that needs to be addressed. One needs to account for the impacts of relief food aid in recipient communities and how they interfere with local food production and consumption patterns of communal farmers. The findings from this research will also form a base for future researchers who would want to carry out studies concerning the evolution of food aid at different scales, especially those interested in understanding how food aid affects levels of production of local communal farmers. It is essential for non-governmental organisations (NGOs) distributing food in the area and for the government of Zimbabwe to know whether providing relief food aid is a worthwhile solution to the problem of food insecurity in the area as well as to know how relief food aid affects production and consumption patterns of local communal farmers. The topic is relevant, because it encompasses the essence of food security issues in Chigodora and reflects the complex and intertwined relationship that exists between food aid programmes and changes of production as well as paradigm shifts in consumption patterns. Therefore, this paper will review existing literature on relief food aid and using the triangulation approach establish its implications on the Chigodora Ward 15 community.

## 2.0 Literature review

### 2.1 History and origin of food aid

Food aid originated in the 1950s when agricultural surplus from developed countries such as United States of America and Canada, were disposed to meet food security objectives of beneficiaries in developing countries (Murphy, 2005). According to (Makenete, Ortmann, & Darroch, 1998), US farmers unexpectedly found themselves with a surplus of most of their agricultural produce mainly cereals. Consequently, many of these products could not be consumed locally and storage of these surpluses proved to be expensive. Rupiya (2004) observed that rapid shortage of markets affected not only the farmers, but also other businesses such as banking and commercial shipping entrepreneurs. In this regard, it can be noted that the origin of food aid was not only driven by the compassion of developed countries towards vulnerable developing nations, but it was also used as a double edged sword to achieve their objective of surplus disposal. The first debate about food aid in an international context can be traced back to the Seventh Session of FAO Conference in November 1953 (Committee on Commodity Problems, 2005). The Conference paid special attention to the growing difficulties encountered for the first time since the end of the Second World War in utilizing surpluses of cereals rapidly accumulating in North America. These complications led the United States to implement measures and legislation for surplus disposal. However, there was concern that if these measures were to be functional in consideration of national objectives and interests, they could threaten proper development of international trade (FAO, 2005).

According to FAO's basic aims, developed countries which had surpluses, adopted policies to increase consumption rates in developing nations. (Harvey & Lind, 2005) added that the 1953 Conference instructed the Committee Commodity Problems to consider major issues, such as choosing the most suitable means of disposing of surpluses, appropriate principles which should be made without harmful interference with normal patterns of production, international trade as well as reinforcement of intergovernmental machinery for discussion on these issues. According to FAO (2005), the most important lessons realized on surplus disposal initiated indigenous ways of making suitable uses of food to address humanitarian needs in developing countries such as Zimbabwe. This was the first major stepping stone in the progression of food aid towards its food security responsibility. New ideals for utilizing food surpluses were recognized as relief food aid and special feeding programmes aimed at assisting the most vulnerable groups in different communities.

### 2.2 Persistence of relief food aid in Zimbabwe

The persistence of relief food aid in Zimbabwe has been debated by various scholars. The agricultural sector has suffered neglect that has resulted in decreased productivity and the lack of investment in the agricultural sector (All in Diary, 2009). Furthermore, there is a lack of public and private partnership investment in the rural and agricultural commodity sector, which is a requirement and important catalyst for agricultural development and food production in developing countries (Mutisi, 2009). Delays in the processing of payments to farmers who would have delivered their crops to the Grain Marketing Board (GMB) and the limited coordination on the procurement and distribution of key inputs, such as seeds, fertilizers and chemicals, are some of the challenges faced in the agricultural sector (Food Agriculture Organization, 2007). This has however resulted in high frequency of humanitarian organizations supplying food aid in vulnerable communities in Zimbabwe. Eliminating the operation of humanitarian organizations in Zimbabwe has proven to be unrealistic since the current scenario does not favor high output in agricultural production.

Supply-side difficulties have also led to a decline in the agricultural sector. Challenges include power outages, lack of credit facilities for communal farmers, high fuel prices and shortages that made agricultural production

expensive and delayed land preparation process, shortages of foreign currency to meet farmers' requirements of inputs, persistent droughts, and the deteriorating land quality (Mudzonga & Chigwada, 2009). According to Mutisi (2009), crumbling irrigation systems and the disincentive effect of the government's price controls have also reduced agricultural production, resulting in widespread shortages of goods and services, high unemployment levels and declining living standards. The current climatic conditions has increased the need for irrigation schemes to boost production, however since communal farmers are lacking financial support, food insecurity has amplified.

The HIV and AIDS pandemic has also been ranked as a factor which causes persistence of relief food aid in most developing countries. According to (Matondi, 2008b) at the macro-economic level, the syndrome has significantly reduced the number of capable agricultural professionals and labor through both death and morbidity. This has however resulted in donor agencies such as World Food Programme in consistently supplying food aid to developing nations. The HIV and AIDS pandemic has increased the number of child headed and women headed households. The economically active group has significantly decreased leading to high dependency ratio. The increase in dependency ratio has increased the vulnerability of poor communities such that humanitarian organizations are left with no choice except to intervene. However, Mutasa (2011) argued that there is no uncertainty that the HIV and Aids epidemic has seriously increased poverty and reduced the capacity for accelerating economic growth in Zimbabwe and in the SADC region.

### 2.3 Effects of food aid on consumption patterns

Food aid can play a significant role in increasing food consumption (Dayton-Johnson & Hoddinott, 2004). (Bezuneh & Deaton, 1997) studied the impacts of food aid on safety nets in developing countries. The study reported a remarkable increase in total household food consumption in the Rift Valley Province of Kenya. The findings of the study established that a considerable number of households participated in food for work activities and consumed 16% more protein, 26% more calories and 42% more fat than the non-participating households. At farm level they noted significant nutritional gains experienced by households playing a significant role in food for work activities and attributed these nutritional gains to additional household income generated through food for work that is directed into additional consumption. According to (Bezuneh & Deaton, 1997), the income elasticity of demand for food among the food for work participants is higher when income is provided in the form of food. The study discovered that more food received as wages through food for work was consumed in contrast to the quantity of purchased food that would have been consumed. The analysis of food for work in Kenya's Rift Valley Province found income elasticity of demand for protein of 0.239 and 0.137 for participants and non-participants, respectively.

(Dercon, Gilligan, Hoddinott, & Woldehanna, 2006) investigated whether food aid transfers play a safety net role by reducing vulnerability in poor communities in Ethiopia. The free food distribution program also had a significant average impact on growth in food consumption, but a negative impact on famine risks. (Barrett, Reardon, & Webb, 2001) reported that elders in Northern Kenya perceive that recipient households consume 50-80% of grain on consumption patterns on food aid as food, the 20-50% balance is used as seed, animal feed or for local brew. People in Northern Kenya started changing their diets and consumption behaviors, foreign food products became more popular and available more than locally produced food. Food aid increased the number of meals ate by beneficiaries per day in most recipient communities. Food aid also increased the availability of a variety of food in many communities.

(Del Ninno & Dorosh, 2002) examined the impact of wheat transfers (through food for education, vulnerable group development, and vulnerable group feeding) and cash incomes on wheat consumption and wheat markets in Bangladesh. Using propensity score-matching techniques, they hit upon total average marginal propensity to consume (MPC) for wheat is 0.33, ranging from zero for food for work to 0.51 for food for education. Their study indicates that the MPC for small wheat transfers to poor households is approximately 0.25, while the MPC for small wheat transfers to poor households is approximately 0.25, while the MPC for wheat out of cash income is near zero. This increase in demand for wheat reduces the potential price effect of food aid involving small rations by about 30%.

According to (L. F. Barrett, 2006) in a background paper for FAO's State of Food and Agriculture, one of the attractive factors of delivering food aid by donors is to motivate demand for foods which recipients are not familiar to which characterize small share of recipient diet system. This is part of a bigger export promotion plan, which involves changing consumer preferences by introducing new food commodities. Delivery of food aid into the Sahel Region of West Africa during the food crises of 1970s and 1980s were believed to stimulate a shift in consumer demand from indigenous millet and sorghum to wheat and rice, (Del Ninno & Dorosh, 2002). However, some of these efforts produce unintentional results as reported by (L. F. Barrett, 2006), who postulated that food aid is relatively inappropriate to local uses and can distort consumption patterns. The preamble of maize to pastoralists

with a strong preference for meat and milk in Western Kenya resulted into increased consumption of local brew made from grain food aid, which increased accessibility of distilling raw materials economically. The consumption of indigenous food stuffs has decreased in recipient communities, in most communities people now prefer donated food than locally produced foods. According to (Mudzonga & Chigwada, 2009) food preferences has changed in recipient communities as a result of constant supply of different types of food aid. People are now more interested in food distributed by humanitarian organizations since it is for free and easily accessible. Literature has revealed that developed countries with food surpluses were more concerned with their own national interests and trade. Current literature reveals that little has been done to assess the potential effects of food aid on the recipient countries. In Zimbabwe the government has been lacking adequate support to the agricultural sector, communal farmers in most parts of the country has increased their dependence on humanitarian aid. In this regard, there is need to assess the short term and long term impacts of food aid on food production and consumption patterns of communal farmers in Zimbabwe.

### 3.0 Methodology

The field data for this research study is collected using the triangulation approach which integrates qualitative and quantitative research methods. The triangulation approach has been chosen to gain an in-depth understanding on the trends in the level of food production and consumption patterns of farmers, before and after the relief food aid programme in Chigodora community. The researcher integrated the two methods since the qualitative model is an investigative methodology, which emphasizes the importance of examining variables in the natural setting within which they exist ((Williams, 2011); (Key, 1997). As research in this study is narrative in nature, qualitative research methods allow the researcher to gain a clearer understanding of people's views, opinions and interpretations about the persistence of relief food aid in Chigodora ward 15, focusing on the insider viewpoint since reality is subjective. On the other hand, the quantitative research model is based on the premise that social phenomena can be quantified, measured and expressed numerically, thereby making the data liable to be analyzed by various statistical methods (Seale, Gobo, Gubrium, & Silverman, 2004). The research model is vital in this research project, because it helped the researcher to describe social structures that cannot be directly observed such as the changes in food consumption patterns before and after the intervention of relief food aid in Chigodora ward 15. In this regard, it can then be inferred that quantitative methods are attributed to relatively high levels of reliability of gathered data.

Chigodora Ward 15 has a total of 14 villages, with 1250 households (ZIMSTAT, 2013). The researcher used cluster sampling to determine the sample size since the process included more than two steps to select clusters, therefore multi-stage sampling is the most appropriate technique. All 14 villages are considered as individual clusters. The names of all the 14 villages were randomly picked and Nehwangura, Matiengane, Matika and Buwerimwe villages were recorded, hence there is no bias on the selection of which clusters to be studied. The researcher proceeded to the second stage of cluster sampling where the researcher determined which elements from each cluster to be studied. The villages selected have a total population of 564 households. According to (Best & Kahn, 1993) the required minimum sample size in research is 10%, therefore 20% is used in this study because it is above the required minimum sample representative of the population under study. The sample size 20% has been chosen so as to strengthen the reliability and validity of the research findings. Therefore 20% of the 4 villages with a total population of 564 households were sampled. The researcher obtained a list of relief food aid beneficiaries from the Plan International Director and randomly selected 14 households per village to match with the 20% sample size. Therefore, the researcher sampled a total of 113 households from the four clusters. The researcher uses purposive sampling when selecting key informants. The samples have been chosen based on who is regarded as essential for the study. The major reason why the researcher uses purposive sampling in this study is that there is limited number of people that have expertise in the field of relief food aid. The researcher selected Plan International Selection Director, Agritex Extension Officer, Chitakatira Health Care Leader, Mutare Rural District Council Social Service Director, Ward 15 Councilor and Village Heads for selected villages as the most important key informants.

During field data collection, questionnaires, interviews and focus group discussions were used. Questionnaires were chosen for this study because of their ability to compare and analyze responses from relief food aid beneficiaries, easier to administer to many people in selected villages and their capability to get large volumes of data (Cooper, Schindler, & Sun, 2003). Closed and open ended questionnaires are used as written instruments for conducting the research targeting the households who receive food aid from the randomly sampled four villages. Open ended questionnaires allowed the respondents to formulate their own answers apart from the provided questions, thereby increasing chances of collecting high quality detailed data. The researcher also used close ended questionnaires which are used to provide specific answers, for instance demographic characteristics. With close-ended questions, there were high chances that suitable questions were asked and helpful information was gathered. The questionnaires are administered to randomly selected households from the four selected villages.

Due to literacy and language barriers, questionnaires are translated into Shona and administered with an interpreter present. The second stage in data collection is through interviews. Semi-structured interviews are used to acquire more relevant data from other key stakeholders in relief food aid programme. Stakeholders included Plan International Selection Director, Mutare Rural District Council Social Services Officer, Ward 15 Community leaders such as Village Headmen for selected villages, Councilor and the Ward 15 Agritex Extension Officer who are also major players in relief food aid distribution. They key stakeholders used to obtain the factors driving the persistence of relief food aid, particularly from the Plan International director for Mutare district. Focus group discussions (FDGs) are used to gather opinions of food aid recipients on how relief food aid has changed or influenced their consumption patterns over time. The major advantage of using the FDGs is that they gathered together people from similar backgrounds to discuss their experiences (Greenbaum, 1998).

Quantitative data generated through questionnaires is analyzed using an electronic data analysis package called SPSS version 24 (Statistical Package for the Social Sciences). The software is useful in presenting information using a variety of tables and charts. The SPSS software assisted in coding and analyzing data from questionnaires, frequencies and percentages on different responses given by respondents. Descriptive statistics are used to generate percentages and statistics of respondents. SPSS software also proved quite useful for the purpose of graphical representation of the raw data. With the help of the SPSS application, different graphs based on different complex data can be drawn easily and effectively. SPSS reduces the time and efforts of the researcher employed in the process of drawing the graphs based on the data (Pujari & Gupta, 2012).

### 3.1 Description of the study area

Administratively, Chigodora ward 15 falls under Mutare Rural District Council in Manicaland Province, Zimbabwe (Figure 1). Ward 15 is located approximately 23 km east of Mutare City (Hagenimana, 2010). Access to the study area is by the use of Vumba road. Mutare City is the nearest urban area which serves Chigodora ward. Most of the communal farmers in the area sell their produce in Sakubva market to support the urban populace. Chigodora Ward 15 community members acquire administrative services in the City of Mutare. Chigodora ward falls within the agro ecological zone 1 which receives high rainfall which ranges from 750mm to 1000mm per annum between November and March (Mugandani, Wuta, Makarau, & Chipindu, 2012). The area receives high intensity rainfall that normally exceeds the infiltration rates of the inherently red soils (Mugandani et al., 2012). Three distinct seasons characterize the area and these are hot to wet season (mid-November to March), cool to dry season (April to August), and hot to dry season which ranges from September to early November (Jerie & Ndabaningi, 2011). Vegetation of the study area can be described as savannah with dense grass across the steep plains since the area also covers mountains. Nyamapfene (1991), described the soils found in the Mutare District as belonging to the rthoferrallitic group, they include the ferrasols and ferric aerosols. Othoferrallitic soils derived from mafic rocks which occur only in areas where mean annual rainfall is greater than 1000. The area is dominated by red fertile soils with relatively high water holding capacity. The area has high drainage density with Mupudzi being the major river. Nyachowa and Nyamambira are the major tributaries of Mupudzi River.

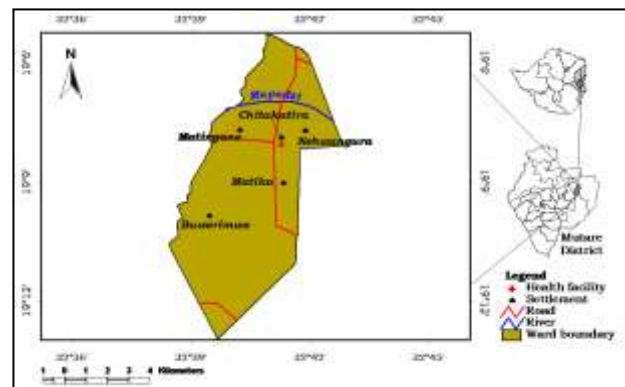


Figure 1: Study area map showing Chigodora Ward 15 of Mutare Rural District.

Chigodora Ward 15 population distribution varies with topography, water resources and other physical constraints. According to ZIMSTAT (2013) Chigodora ward 15 has a total population of 6600 people with 1250 households. The gentle flat landscapes have relatively high population than areas with high altitude, mountainous areas are sparsely populated mainly because of accessibility and scarcity of land suitable for agriculture as well as water resources. There is a high demand for land in some parts of Mutare Rural District such that some people are forced to live on the hills, which were initially designated as grazing areas or places for fetching firewood. Major economic activities include subsistence farming, craftwork and trade. Most communal farmers in the area grow crops such as maize, wheat, beans, and peas amongst others. Crops grown are both for consumption and in case of surplus they can sell their produce. Trade is also an important economic activity in Chigodora, most middleman order goods such as clothes and basic food commodities for resale.

## 4.0 Results

Demographic data obtained from questionnaires revealed that from the sampled population receiving food aid in Chigodora, 62% are females and 38% are males. From the statistics it can be noted that women in Chigodora Ward 15 are more vulnerable to food insecurity than men since they constitute more than 50% of the beneficiaries

receiving relief food aid. Findings from the questionnaires administered demonstrated that the most dominant age category receiving food aid is 51 to 61 years followed by child-headed households. Evidence from the interview with the Plan International Selection Director revealed that age is one of the criteria used to select beneficiaries and they also target vulnerable and less economically active people. The least dominant age category receiving relief food aid in Chigodora is 29-39 years, probably because the age range constitutes the most economically active people so they are excluded from receiving aid. Household size as a parameter of significance shows that bigger families with 7 or more members constitute the integral part of food aid beneficiaries with a total of 41%, although household size is not considered during beneficiaries selection.

#### 4.1 Nature and frequency of food distribution

Evidence obtained from the administered questionnaires reveals that Plan International is the only humanitarian organization which supplies food aid in all sampled four villages in Chigodora Ward 15 on a monthly basis. Plan International supplies food aid consistently to the selected beneficiaries to ensure maximum food security at household level to the targeted vulnerable households. Since the beneficiaries constitute people infected by HIV and AIDS, Plan International maintains the frequency of food aid distribution to maintain a health status of its beneficiaries. The major types of food substance distributed in Chigodora Ward 15 are maize, beans, cooking oil and mealie porridge. The major reason why they are distributing these basic food commodities is that they constitute the staple diet of the community and it contains vital nutrients required by beneficiaries in the category of malnourished children and people infected with HIV. All the questionnaire respondents belonged to group of communal farmers who heavily depend on rain-fed agriculture. Generally food is needed by all households to live a healthy and productive life. Approximately, 14% of the sampled population emphasized that the decision on nature and frequency of relief food aid distribution in Chigodora Ward 15 should also involve the views and contribution of the beneficiaries. This minority group further argued that at the present moment the nature and frequency of food aid distributed does not generally meet the local beneficiaries' food preferences. About 67% of the respondents could not approve the idea of food donors involving locals on deciding frequency of distribution and nature of food distributed. The researcher observed that the major reason why 67% of the questionnaire respondents are not willing to be consulted concerning the nature of food stuffs distributed was that they feared that the process will interrupt the current food distribution and to an extent that the authorities will eventually eliminate food aid in the area to avoid further complications. The remaining 19% were neutral, perhaps what they considered important was finding food on the table whether they have been consulted or not.

The Plan International Selection Director mentioned during the interview that they were given food by World Food Programme (WFP). They explained that their mandate as a non-governmental organization is to conduct surveys and identify vulnerable communities in need of relief food aid. Concerning the nature of food aid distributed the Selection Director confirmed that Plan International conducts assessments on the most suitable food and the appropriate distribution frequency in each community. The report will be submitted to the WFP for final decision, feedback from beneficiaries will be channel through Plan International. Issues such as nature of food aid distributed and frequency of distribution are amongst the issues considered by the Council when approving operation of donors in Chigodora. During the interview the researcher quoted the RDC Social Services Director saying *'before food aid organization are approved they should outline the nature of the food they intend to distribute, a clearance letter from Mutare District Health office will be issued to confirm whether the nature of food distributed does not have health implications.'* The major role of the Council in food distribution is to maintain a delicate balance between food distributors and the community. The Mutare Rural District Council Social Services Officer noted that involving beneficiaries on nature of food aid to be distributed was a good idea, as it promotes a two way communication between the beneficiaries and the food aid distributors. The research results presented on the nature and frequency of food aid distribution in this study concurred with major findings of previously revealed literature especially on the nature of food aid distributed on humanitarian organizations Mudimu (2003b).

#### 4.2 Food production and consumption patterns before and after food aid

##### 4.2.1 Food production before and after food aid

Data obtained from questionnaires on the type of crops grown in Chigodora revealed that the most dominant crop grown is maize. About 70% of the questionnaire respondents confirmed that before the coming of food aid they grew maize only whilst other respondents indicated that they grow maize and other crops such as wheat and small grains. This is justified by the geographical location of Chigodora Ward 15, which is suitable for maize production. Research has shown that due to changes in climate and other constraints yields has been constantly decreasing. After the coming of relief food aid there has been a 16% decrease in maize production. This could have been caused by shifts in consumption patterns in the community and dependence of beneficiaries on food aid. In this case, food aid beneficiaries are now reluctant to produce since they are constantly supplied with food aid. Fig



2 shows detailed statistics given by questionnaire respondents by percentage of crops grown before and after food aid.

The current research study has revealed that there has been a significant change in food crops grown after the coming of food aid in Chigodora Ward 15. A total of 79% of the respondents confirmed that there has been a significant change of food crops grown. The major changes outlined by 40% of the respondents are a 28% fall in production of finger millet. The change could have been as a result of shift in consumption patterns, since the coming of food aid people now have a variety of food to choose from. Changes in food preferences could have been a major reason in the fall of finger millet production. Around 38% of the respondents believed there has been a change in food crop production, but they do not

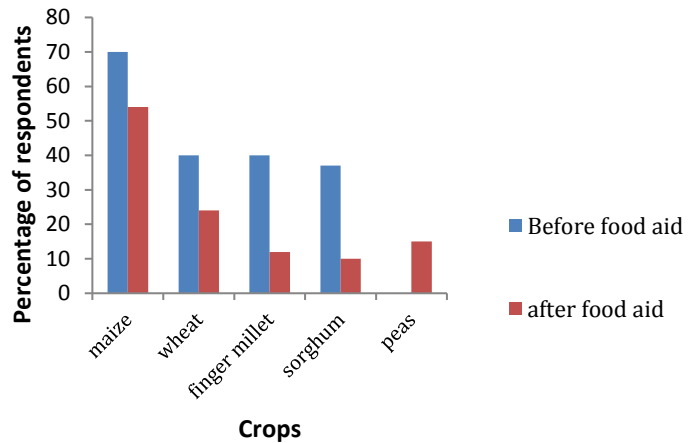


Figure 2: Statistics of crops grown before and after food aid.

subscribe to the notion that indigenous crops are no longer grown, but instead argued that there has been a decrease in the growing of indigenous crops. This category noted a 28% decrease in sorghum production. Although they concur with the fact that there has been a change in production of indigenous crops they disagreed with the fact indigenous crops has been completely ignored. They believe that there has been a variety of food stuffs on the market and less attention has been given to production of indigenous food crops leading to their significant decrease. The time taken to produce and post-harvest processes of indigenous crops has been proven to be laborious and tedious. A typical example is a response from a questionnaire respondent who was quoted after completing her questionnaire saying 'we can no longer spend our time on indigenous crops such as sorghum which require much attention yet we now have a variety of options.' Such an expression clearly explained why there has been a decrease in indigenous crops grown after the coming of relief food aid.

Despite the changes in indigenous food crops grown around 14% of the questionnaire respondents confirmed that there has been a new crop introduced after the coming of food aid. Peas were the only crop which was introduced to supplement their diets. A number of respondents outlined that early maturing varieties of peas were now grown in Chigodora, which suited the emerging shorter growing seasons. Evidence from the interview with Agritex Extension officer proved that there has been change in production patterns. Agritex officer explained that they advised communal farmers in Chigodora to adopt early maturing varieties of peas to improve their food security. The Agritex extension officer noted changes in crop production when she explained that yields of cereal crops are constantly decreasing. They also postulated that there is a significant decrease in indigenous crops grown in the area most probably because of the labor intensive of indigenous crops as well as the fact that people are now opting for crops such as peas which are quick to produce. Plan International Selection Director mentioned that although the main objective of distributing relief food aid is to improve food security at household level it is not their intention to undermine local food crops.

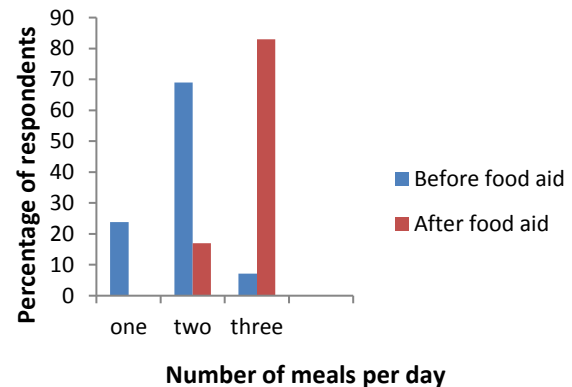


Figure 3: Comparison of number of meals per day before and after food aid.

#### 4.2.2 Consumption patterns before and after food aid

Food consumption patterns have changed in Chigodora since the coming of relief food aid. The number of meals most beneficiaries now have per day has increased. Confirmation from questionnaire respondents proved that before food aid only 7% of the respondents could afford to have three meals per day, but after the intervention of food aid agencies in Chigodora Ward 15 shows that 83% of the respondents are now able to have three meals per day.

The major reason explained by respondents to justify the change is that food aid improved availability and access of food to the beneficiaries. Fig 3 illustrates a comparison on consumption patterns of beneficiaries in Chigodora Ward 15 before and after food aid.

As presented in Fig 3 there has been a change in consumption patterns, the statistics shows that the number of meals food aid beneficiaries are now having per day has improved. Evidence collected from key informants concurred with notion that consumption patterns of food aid beneficiaries in Chigodora Ward 15 has significantly changed. The Health Care Leader confirmed changes in consumption patterns when she mentioned that the health status of the beneficiaries has improved since the number of meals per day increased. Community leaders, such as the councilor and village leaders, noted significant changes in consumption patterns, because of the improved availability of donor aid. The Ward 15 Councilor Mr Tasiyenyika was quoted during the interview when he said *'in the past few years it was rare to find families who could afford to have three meals per day but now because of food aid it is now common that people now have more food at household level.'* Such a statement clearly shows that Chigodora community is confirming that their consumption pattern have to a greater extent improved because of food aid. Research findings in this study on food production and consumption patterns before and after food aid partly concurs with results presented on previous studies which also suggested that food production crops has been compromised since the coming of food aid. In a study conducted by [Mudzonga and Chigwada \(2009\)](#), cereal delivery in Zimbabwe was dependent on domestic production, especially when the rainfall patterns are not inconsistent. Therefore, without any disturbances on farms and depending on the rainfall pattern, Zimbabwe generally prefers locally produced food than food donated.

### 4.3 Factors driving the persistence of food aid in Chigodora Ward 15

From the field survey conducted several factors driving persistence of food aid were mentioned by questionnaire respondents. Major factors noted by respondents include climate change, HIV and AIDS, lack of proper distribution of farming inputs and dependency syndrome. Amongst the mentioned factors climate change contributed about 52% of the responses.

#### 4.3.1 Climate change

Climate change has been rated the most influential factor which causes the persistence of food aid in Chigodora. Changes in rainfall patterns have resulted in decreased yields of crop production. The research study has shown that the onset and cessation dates of rainfall have significantly shifted. The rains are commencing later than they usually did in the past. In Chigodora rains used to start in late October and cease in mid-April. Currently, they are commencing in late November and ceasing in late February. The growing season has become shorter and cereal production has been compromised to a greater extent. Droughts have become too frequent in the area. During the past decades droughts has been occurring at a 10 year interval but currently they have become more frequent to the extent that they now occur twice or more in 10 years. Donor agencies such as Plan International have intervened to improve food security situation in Chigodora that is the major reason why relief food aid has persisted in Chigodora Ward 15. The Ward 15 Agritex Extension Officer reported that climate change was the major cause of persistence of food aid in Chigodora Ward 15. She went on to explain that the growing season has become shorter and dry spells have become more frequent and this has compromised yields as well as increasing vulnerability of communal farmers to food insecurity and they are left without an option except depending on donor aid.

#### 4.3.2 HIV and AIDS epidemic

The HIV and Aids epidemic was also mentioned as a significant factor that causes persistence of relief food aid. In an interview with the Plan international Selection Director, the organization confirmed that people infected with HIV and Aids were part of their targeted beneficiaries. Their interview response revealed that withdrawing aid in Chigodora will disrupt one of their key objectives in recipient communities of improving health status of people living with HIV and AIDS. A total of 26% questionnaire respondents mentioned the epidemic as a factor contributing to the persistence of food aid in Chigodora. Since the disease has also affected the economically active group, crop production has been decreasing as the prevalence of the disease increases. The Mutare Rural District Council mentioned that HIV and AIDS has increased the number of child headed and Women headed households and this has exacerbated the persistence of food aid since child headed families are more vulnerable to natural disasters such as climate change. Chitakatira Health Care Leaders confirmed that HIV and AIDS epidemic is a serious factor that has affected food production in Chigodora Community and at the same time paving way for the persistence of relief food aid in the area. [Matondi \(2008a\)](#), concurred with research findings from this study since they also reported that at macroeconomic level, HIV has significantly reduced the number of capable agricultural professionals and labor through both death and morbidity.

#### 4.2.3 Lack of adequate distribution of farming inputs

Lack of adequate distribution of farming inputs is another factor that has influenced the persistence of food aid in Chigodora. About 11% of the total respondents blamed the government for not properly distributing farming

inputs. There is indeed very little achievement in coordination between responsible institutions. An interview with the Agritex Extension Officer exposed the failure of the government of Zimbabwe to adequately distribute required farming inputs in time. The Agritex Officer blamed the government for not adequately fund agricultural research institutions which focus on impacts of climate change on agriculture and food security. In some cases where the government distributes farming inputs wrong varieties are distributed. The Village Head also expressed concern on the issue of distribution of farming inputs as he explained that it has a direct impact on yields, in his interview he mentioned that farming inputs such as seeds, fertilizers and chemicals are not being distributed at the right time. The current research findings on poor distribution of farming inputs as a factor that influenced the persistence of food aid were similar to results presented by N Marongwe (2008) when he postulated that access to farming inputs has been severely compromised and hindered. There is a lack of clear demarcation of household tasks and duties between institutions such as the government and non-governmental organizations in maintaining a delicate balance between food production and food aid.

#### 4.2.4 Dependency syndrome

Dependency syndrome is amongst the mentioned factors causing persistence of food aid in Chigodora Ward 15. About 10% of the respondents blamed dependency syndrome of beneficiaries.

Findings from the research study have established that food aid beneficiaries are now dependent on food aid, they have now regarded food aid as the only solution which can solve food insecurity.

A significant number of beneficiaries are now reluctant to focus on food production since food aid donors are consistently supplying food aid in Chigodora Ward 15. The Ward 15 Councilor's interview mentioned that despite the fact that the climate is changing more can be done in Chigodora Ward 15 to improve household food security. The Councilor stated that dependency syndrome has also ravaged Chigodora community and has led to the persistence of relief food aid in area. The Village head also noted the issue dependency on food aid as constrain to the achievement of self-sufficiency in Chigodora Ward 15.

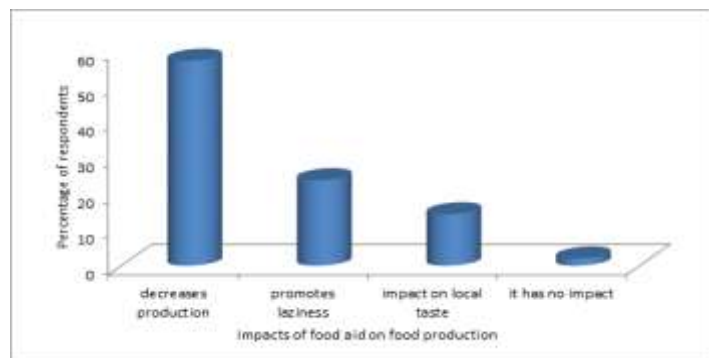


Figure 4: Short term impacts of food aid on food production

#### 4.4 Short and long term impacts of relief food aid on food production

##### 4.4.1 Short term impacts of relief food aid on food production

Short term impacts of relief food aid mentioned by questionnaire respondents include decreased food production, promotion of laziness amongst beneficiaries and impact on local taste. Of all the short term impacts mentioned, decreased food production was mentioned as the highest impact affecting food production. About 57% of the respondents regarded a decrease in food production as a major impact of food aid on food production (see Fig 4). Food Aid was highly entrenched and therefore had become contextualized in the Chigodora community. This was evidenced by increasing cases of double dipping, threats and conflicts when others were excluded from food aid registers. The community seemed to enjoy their poverty status because then they were enabled to be registered for food aid. Failure to secure one's name in the food aid register will cause potential conflicts at community level. Focus has now been removed from agriculture to dependency on food aid. Despite decreasing food production, food aid has also been blamed for promoting laziness in the community.

A total of 24% concurred with the idea that food aid promotes laziness in the community. It has been hold responsible for compromising creativity of people in Chigodora, every challenge they meet they now regard donor aid as the solution in life. An interview with The Health Care Leader confirmed a recent incident in which a nongovernmental organization was conducting a malaria awareness campaign. Several individuals were reported to have confronted the organization and demanded them to supply mosquito nets and anti-malaria kits for free. Such action exposes the level of desperation the community is as far as donor aid is concerned.

About 14% of the respondents mentioned the impact on local taste whilst only 2% refused the fact that food aid has an impact on food production, most probably because they have been over excited by the seasoned relief without a clear focus of the future. The Mutare Rural District Social Service director noted the impact on local food taste as a significant short term impact of relief food aid on production.

#### 4.4.2 Long term impacts of relief food aid on food production

Long term impacts of relief food aid on food production mentioned were dependency syndrome, overall decrease in food production, disincentives on farmers to produce and exposure to low quality and unsafe products. Disincentive effects of food aid can have the unintended consequence of discouraging household food production. As presented by figure 5 statistics from questionnaire respondents revealed that 36% of the respondents blamed food aid for disincentive effects on agricultural production. If food aid lowers local food prices, that may decrease the relative payoffs to investing in one’s own production. For households that cannot support themselves, such as those with high dependency ratio bodied, dependence on external assistance is very likely to be welfare enhancing when the alternatives destitution or worse.

The Ward 15 Agritex Extension Officer confirmed that in the long run the persistence of relief food aid will directly influence agriculture production. Negative dependency typically arises when individuals, households or communities alter their behaviour in response to the provision of assistance that unwittingly creates disincentives to undertake desirable behaviour. These disincentive effects can be short-term in nature, in which case concerns about negative dependency are minimal. Another factor noted by about 29% of the questionnaire respondents was overall decrease in food production when it interrupts regular investment or maintenance cycles that maintains or enhance local agricultural productivity.

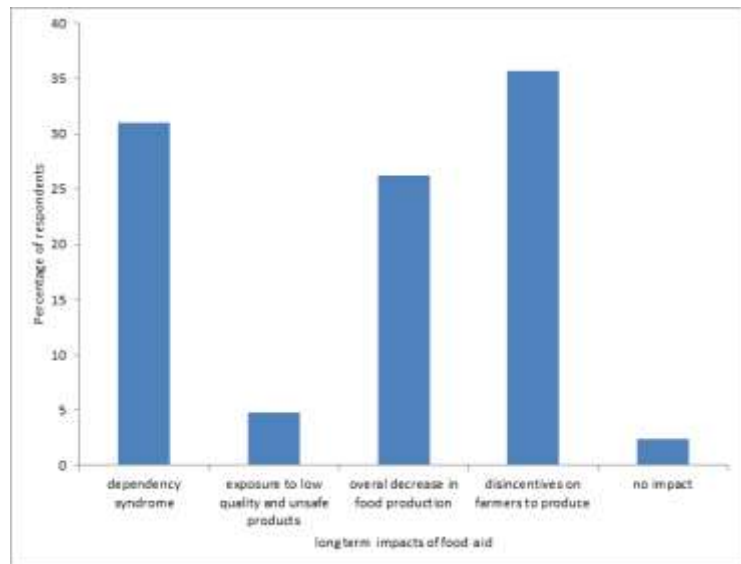


Figure 5: Long term impacts of food aid on food production.

An interview with the Ward 15 Agritex extension officer reflected that on a long time basis dependency syndrome develops in a community that receives food aid, the Ward 15 Councillor concurred with the idea when he mentioned that

‘Despite the fact that Plan International is helping vulnerable people in Chigodora there is a possibility that our people will become dependent on food aid and abandon their means of production.’

#### 4.5 Solutions to tackle the persistence of relief food aid

The researcher also gathered possible solutions to tackle persistence of food aid from questionnaire respondents. Major findings include dam construction to support irrigation schemes, growing of drought tolerant crops, establishing community gardens, adequate supply of farming inputs by the government and educating, training and educating farmers to boost production. Fig 6 shows responses from questionnaire respondents by percentage.

Questionnaire respondents preferred dam construction to support irrigation schemes, a total of 33% agreed with the idea of boosting agricultural production especially food crops through irrigation. Since Zimbabwe has not been spared by climate change, Chigodora Ward 15 food aid beneficiaries opted for irrigation as a solution to tackle persistence of food aid in the area. The Ward has Mupudzi dam only and it is too small to support irrigation schemes for the entire Ward. Currently there are only two irrigation schemes which are not operating in full capacity, improving the capacity of the current projects as well as launching more projects will assist in boosting food security in Chigodora community hence reducing the dependency on food aid. The growing of drought resistant crops to tackle the prevailing problem of frequent

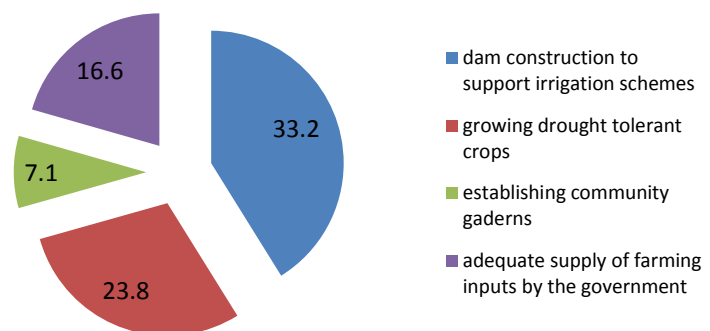


Figure 6: Solutions to tackle persistence of food aid.

droughts and dry spells was proposed by 32% of the respondents. Examples of drought tolerant crops mentioned during the study include sorghum, rapoko and finger millet. The proposed crops will be an ideal alternative which can improve food production despite the frequent dry spells.

The Mutare Rural District Social Service director concurred with the solution of supplying farming inputs to communal farmers at the right time when he mentioned that adequate supply of inputs will reduce the focus of the community on food aid and concentrate on producing food. The communal farmers also complained about black marketing of inputs at unreasonable price which eventually resulted in delays of farmers to access farming inputs. Establishing community gardens was also amongst the brilliant solutions raised by 7% of the respondents sampled. Nutrition gardens can as well benefit beneficiaries infected with HIV and Aids. Since the donors also target HIV and Aids victims community gardens can as well improve the health status of the beneficiaries. Vital crops such as vegetables, herbals and spices have the capacity to improve the health status of the community. The research findings collected and presented in this survey contradicts with the research findings presented by Mutisi (2009). Delays in the processing of payments to farmers who would have delivered their crops to the Grain Marketing Board (GMB) and the limited coordination on the procurement and distribution of key inputs, such as seeds, fertilizers and chemicals, are some of the challenges faced in the agricultural sector which ultimately causes frequent distribution of food aid in poor communities. Although the proposed solution to tackle persistence of food aid was directed to the government, (Mutisi (2009)) proposed the liberalization of the Grain marketing to improve its efficiency as well as improving production processes and obsolete machinery that increase fixed production costs.

## 5.0 Conclusions

The aim of this research study is to assess the effects of relief food aid on food production and consumption patterns in Chigodora community. The objectives developed for the achievements of this aim are to (1) To determine the nature of food and the frequency of distribution by humanitarian organizations, (2) To compare food production and consumption patterns of communal farmers prior and after relief food aid programmes, (3) To establish the factors driving persistence of relief food aid in Chigodora and (4) To assess the short and long term impacts of relief food aid on local food production. Findings from the research conducted reflected that relief food aid has a direct effect on food production and consumption patterns in recipient communities. Impacts on food production include disincentives on farmers to produce, overall decrease in food production and dependency syndrome. The persistent droughts, poor producer prices for the main food crops and the government's lack of foreign currency to import production inputs have also played a significant role in negatively affecting the level of food production and food availability thereby increasing vulnerability in the most communal areas such as Chigodora Ward 15. Apart from its negative impacts presented food aid in Chigodora Community has resulted in increase in the available food and has cushioned the various vulnerable groups in the community for example the elderly and those infected by HIV and AIDS.

According to the research findings the persistence of relief food aid has been caused by climate change, HIV and AIDS, lack of adequate distribution of farming inputs and dependency syndrome. The scenario has been worsened by the failure of the community to adapt to the prevailing situation. The consequential effect of relief food aid has been that Chigodora Community now believe they are vulnerable and there is absolutely nothing that they can do to change their situation except to linger for food aid from humanitarian organisations such as Plan International. The repeated droughts since 1999 have eroded community and household livelihood activities, assets and their dependency syndrome has been compounded by cheap politics of food handouts from mostly the western nations. In this regard from the survey conducted it is noticeable that although relief food aid improves food access in Chigodora it is to a larger extent responsible for negative impacts such as dependency syndrome and distortion of local food production as discussed earlier. Despite the fact that there are various types of food aid, the research study only focused on the impacts of relief food aid on food production and consumption patterns of communal farmers in Zimbabwe. Consequently, the implications related to other types of food aid have not been included in this research study. In this regard, future research studies can investigate the short term and long term impacts of other types of food aid such as project and programme food aid on food production and consumption patterns of rural livelihoods.

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