

The challenges of food security policy and food quality in Zimbabwe

A case study of Operation Maguta in Buhera District

W Mupindu

Department of Public Administration
Faculty of Management and Commerce
University of Fort Hare

ABSTRACT

The study discusses food quality and safety challenges and their impact on food security policy in the public domain of Zimbabwe. It also interrogates control measures that the Government has adopted in addressing food shortages in some parts of the country. In an approach to food security policy which is relatively new in Africa, the Government of Zimbabwe assisted farmers through a logistical support programme dubbed Operation Maguta in order to improve efficacy in food security policy and quality. The manner in which the programme was conducted has been a subject of public debate in the country. This study queries claims of subsistence farmers benefiting from government assistance in Buhera District. Problems of an increasing population, lack of resources and technical knowledge to deal with pre-harvest and post-harvest food losses, environmental and food hygiene adversely affected food quality and safety in Zimbabwe. The study is conceptually based on the following food security policy pillars: availability, accessibility, stability of supply and access plus safe and healthy utilisation. The study adopted focus group interviews with subsistence farmers and agriculturalists, and the questions were directed at production, supply and demand. The study found that agricultural production levels in Buhera District are still low with regard to contributing to malnutrition, which consequently affects growth and learning capacity for children and the ability of adults to lead fully productive lives.

INTRODUCTION

There is a great deal of literature with respect to food security, however, this study concentrates on literature relating to food quality and safety challenges for food security policy pertinent



to the study. The importance of literature review in a study of this nature needs no emphasis as it plays a pivotal role in helping the researcher to understand the research problem better (Chikoko and Mloyi 1995). The overall purpose of this study is to recommend a way forward for strengthening food quality and safety challenges influencing food security policy in Zimbabwe. The recommendations and proposals described in this study are a result of wide consultations and a consensus-building process with representatives from the agriculturalists and subsistence farmers under Operation Maguta. This is an ongoing programme initiated by the Government of Zimbabwe in early 2005 in order to improve food quality and alleviate food security policy challenges.

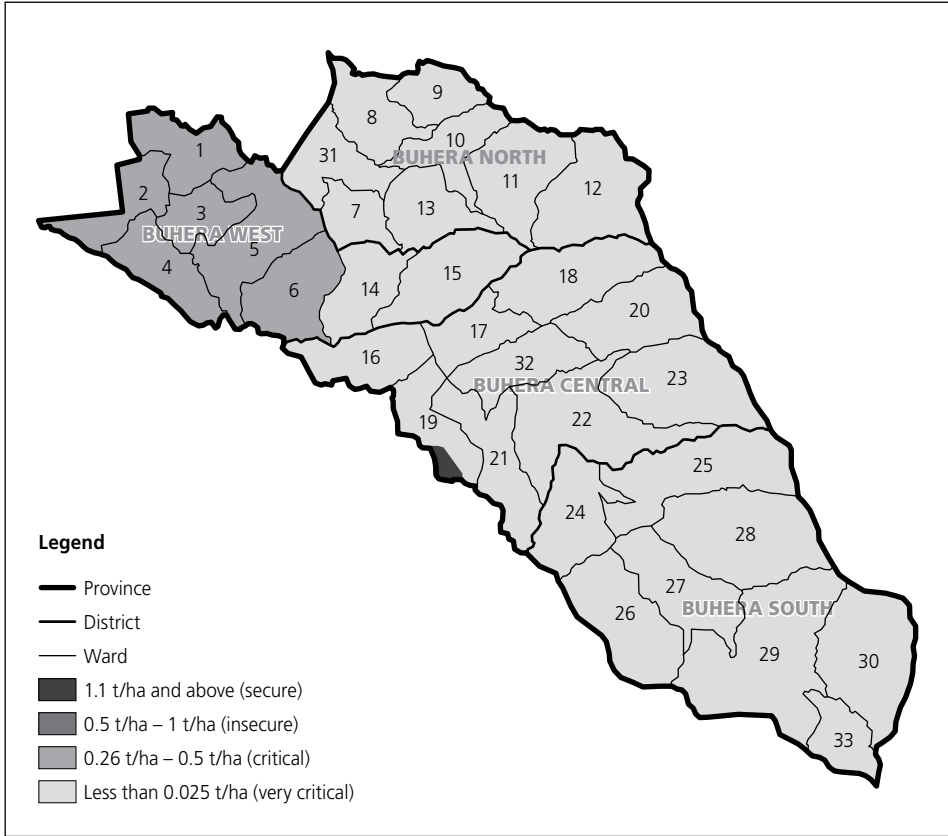
In Buhera District, this programme started in September 2006 even though it had already been functional in the commercial farming areas of Zimbabwe. This process was intended to achieve a national system for food quality and safety in Zimbabwe underpinned by the four pillars of food security policy. *Maguta* is a Shona word referring to the state of being satisfied from the agricultural produce, especially after a good harvest. The study also highlights a number of critical considerations for improving the provision of agricultural produce as well as the resources and capacities required. Since 1980, food quality and safety challenges have been considered a priority in Zimbabwe. Zimbabwe used to be the bread basket of the Southern African Development Community (SADC) and was, therefore, given responsibility of food and security. This study investigates what went wrong since the country is now facing food quality and safety challenges impacting on food security policy.

STUDY AREA

Buhera district is located in Manicaland Province, southeastern Zimbabwe and constitutes 15,4% of the Province. This district is 5364 square kilometers (536 499 hectares) in size. It is the second poorest rural district in Zimbabwe comprising 33 wards and 41 councillors, eight of whom are appointed. Further, its local economy is based mainly on subsistence farming. Buhera district is bordered by Chikomba District and Wedza District to the north, both of which are in Mashonaland East Province. Makoni District lies to the northeast of Buhera District whilst Mutare District lies to the east of Buhera. On the southeast, Buhera is bordered by Chipinge District. Further, Gutu District in Masvingo Province lies to the south and west of Buhera District. It is approximately 170 km from Mutare City, which is the Provincial Headquarters of Manicaland. The name Buhera originated from the Nguni word uHera referring to the people of the Shava totem under Chief Nyashanu (VaHera). Historically, VaHera people claim to be of the Shona tribe from Guruuswa north of Zambezi River.

It is a dry under-resourced district with an estimated population of 218 570 (Central Statistics Office 2004). A number of men work in urban areas of Zimbabwe and only return home during holidays. According to the observation made by the research, this contributes to manpower shortages in the district since agricultural practices demand a high level of labour input. The landscape is hilly and is characterised by savannah or thorn bush vegetation. The most important food crops grown in this district include maize, sorghum, millet (mhunga), roundnuts (nyimo) and groundnuts (nzungu). The subsistence farmers in

Figure 1 Manicaland Province: Buhera District block and ward map for production year 2011/2012



Buhera District also practise cattle ranching complementing crop production. Buhera is a dry low lying area with low rainfall and exhausted infertile sandy soils contributing to poor harvests and food shortages. Although the rainfall is not very reliable in most parts of Buhera, Buhera North is relying on several irrigation schemes to supplement ability to provide agricultural products. For example, Murambinda Irrigation Scheme under Buhera District draws water from the two reliable dams, namely Mwerahari and Marovanyati Dams. There are four rivers that border Buhera district namely Save River on the North, Nyazvidzi on the South and also Mwerahari as well as the Rwenje rivers.

Figure 1 depicts the map of Buhera District, including all the wards and boundaries. The areas ranging from wards I up to VI are in a critical state of food deficit. Further, wards VII+ to XXX are in a very critical condition of food shortages. This is the current situation in Buhera District according to the production year 2011/2012 season. The condition could have been worse without the Government’s intervention through *Operation Maguta*. Buhera District is one of the disadvantaged reserves where blacks were settled by the colonial Rhodesian Regime as outlined in the *Land Apportionment Act, 1930*. According to Maposa, Gamira and Hlongwana (2010), this Act divided the country into six specified areas, namely: the native reserves; the native areas; the European area; the undetermined area; the forest area and the unassigned area.

BACKGROUND OF THE STUDY

Food security policy is an increasingly critical global issue affected by a complex and interrelated set of variables that influence the availability and access to food in each country. At one end, food security policy implies the availability of adequate supplies at global and national level whilst on the other side, the concern is with adequate nutrition and well-being. Cassol de Horowitz (1993) identifies food security policy at three levels, namely, global, national and household levels. Nonetheless, it may not be discussed in isolation from the rest of the world. World hunger and household food security policy have been high on the development agenda of many countries and international organisations such as the United Nations. In 2002, the leaders of states throughout the world committed their countries towards eradicating hunger and reducing the number of undernourished people by 50% by the year 2015 (FAO 2008). This indicates that the food quality and safety challenges are some of the current global debates which need attention in order to alleviate food security policy problems.

From a global perspective, the *Rome Declaration on World Food Summit* reaffirms the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of human beings to be free from hunger (FAO 1999). The World Food Summit (WFS) thus acknowledges the innate relationship between food security policy and food quality as well as safety control measures. In addition, the World Food Summit Plan of Action recognises that: "Food security policy exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (World Food Summit 1996). The nutritional status, health, physical and mental faculties of human beings depend on the food consumed. Safety of food is a basic requirement of food quality. Food quality can be considered as a complex characteristic of food that determines its value or acceptability to consumers. Sudhaka, Nageswara, Ramesh and Gupta (1988) argue that besides safety, quality attributes include: nutritional value; organoleptic properties such as appearance, colour, texture, taste and functional properties.

Lee-Smith and Memon (1994) argue that the concern for food security policy may be associated with the origin and development of humankind. There is evidence that societies grew out of a change that began about 11 000 years ago when modern humans began to change their way of living. The evolution of agriculture is viewed as a process in which the relationship between plant, animals and humans was fundamentally altered by a combination of natural, technological and cultural processes (Pfukani 1996). Further, Mashingaidze (1987) is of the opinion that intensive agriculture may be traced back to about 10 000 years ago, when human groups in areas of the southwest Asia including Lebanon, Israel, Turkey, Iraq and others began to intensify the use of certain plants and animals by removing them from the natural to artificial settings. The domestication of plants and animals shifted humans to move from dependence on nature to the adaptation of nature to provide for their needs.

It is estimated that in 2020, the World population will most likely reach 7,6 billion, an increase of 31% over the mid 1996 population of 5,8 billion (United Nations Population Division 1998). Approximately, 98% of the projected population growth over this period will take place in developing countries (*ibid*). This overall increase in population poses great challenges to food quality and safety, which also impacts on food security policy in the global village. Intensification of agriculture practices, efficiency in food handling, processing

and distribution systems; introduction of current technologies including appropriate application of biotechnology will all have to be exploited to increase food availability to meet the needs of growing populations. Some of these practices and technologies may also create prospective problems of food safety and nutritional quality calling for special attention in order to ensure consumer protection.

Presently, the food quality and safety challenges are more pronounced in the developing world where the highest number of countries is in Africa. The FAO (2000) report reveals that a number of malnourished people in Africa has increased by 15 % since the World Food Summit of 1996. This figure is argued to now total more than 800 million (*ibid*). This is confirmed to be more evident in the Sahel region, Sudan, Chad, the horn of Africa notably Somalia, Ethiopia, Eritrea, and Southern African countries such as Angola, Malawi, Mozambique, Zambia and Zimbabwe. The FAO (2004) notes that insufficient information to forecast famine is a central reason for the failure of national governments and the international donor community to prevent the famines in Africa in the mid 1980s. This important information is, in most cases, available to governments and research institutions, but many small scale farmers do not have the capacity to access this information.

In most developing countries, agriculture continues to be the most crucial sector of the economy, yet ironically, the majority of subsistence farmers engaged in agriculture are food- insecure. The FAO (2003) notes that about 842 million undernourished people in the developing countries are from subsistence farming families. This situation arises when they have to sell their produce to meet other needs such as school levies and other food products they do not produce. Poverty denies them access to information and technologies to manage and preserve harvests. This contributes to food quality and safety challenges and also impacts on the food security policy of the country. While subsistence farmers produce food, it is not affordable in a consumable way, which leaves them hungry either way. Increasing attention is being given to the role of smallholder subsistence agriculture in ensuring the efficacy of food security policy in Africa acknowledging that 73% of the rural population consists of smallholder farmers (International Fund for Agricultural Development 1993).

There is evidence of an early concern with sustainable food security policy where society began to realise the need for a more stable way of food supply. Citizens of developing countries are exposed to a variety of potential food quality and safety challenges. The challenges of food security policy and quality of food is a global concern which is also cascading down to African countries like Zimbabwe. This study discusses the challenges of food quality and safety concerning food security in developing countries using a case study of *Operation Maguta* in Buhera District, Zimbabwe. Therefore, the focus of this study is to discuss food security in Zimbabwe at household level this District as a case in point. Food systems in developing countries such as Zimbabwe often experience challenges related to the problems of an increasing population, urbanisation and lack of resources. *Operation Maguta* is a unique programme initiated by the Government of Zimbabwe as a way of alleviating challenges related to the implementation of food security policy. The study dissects the impact of food quality and safety challenges on food security policy and recommendations unveiling strategies of dealing with these challenges.

In Zimbabwe, Kenya and Zambia, the expansion of labour recruitment into rural areas led to migrations into mining areas and large scale commercial farms at the expense of rural households (Chigwedere 1989). According to Bonjesi (2004), the sustainability of

subsistence farming in crop production in Zimbabwe is hampered due to various factors such as lack of input and mainly lack of access to information and knowledge resources by subsistence farmers. They need information on farming systems, pest and diseases, cropping, training in credit management, livestock management, marketing and pricing, harvest management, health and nutrition, farm security, finance and credit facilities plus other information which include farming without chemical fertilizers; and drought-resistant crops (Moser 2003). Agricultural information is therefore necessary to reach subsistence farmers and agriculturalists in order to meet their needs. If subsistence farmers, for example, have access to relevant agricultural information, food shortages may be eradicated. Such information is important to their farming practices and impact on household food security policy. Most subsistence farmers in Zimbabwe are elderly and less energetic, thus making the current information formats unsuitable and therefore inaccessible to them.

In many cases, facilities and training need to be provided for hygienic handling of agricultural produce to assure their safety and quality. Governments must take the necessary steps through national food security policies and programmes to ensure that food quality and safety considerations form an integral part of their food security system. Currently, a number of countries lack comprehensive national food quality and safety regulations. Through national food control systems, governments should provide a supporting infrastructure and assume an advisory and regulatory role. In Zimbabwe, many children are currently hungry and malnourished with the resultant serious impact on growth and learning capacity and the ability of adults to lead fully productive lives. Moreover, most of these people are found in drought stricken areas, including Buhera District where the cost of input is greater than the value of the land.

In 2002, Zimbabwe experienced a severe crop failure due to low rainfall. The reduction in yield at household level led to a 70% shortfall in production to meet annual food requirements. This was the largest deficit in its food production since 1980. This resulted in food shortages throughout the country, particularly in rural areas such as Chibi and Buhera. This condition deteriorated into famine and humanitarian disaster. The cereal deficit in 2002/2003 was estimated at 1,65 million tonnes (Mano 2003). According to the Zimbabwe Emergency Food Security Assessment, 486 000 tons of food aid was needed to meet food security policy requirements of 6 700 000 people (49% of the population) over the period September 2002 to March 2003; of the 6 700 000 requiring food aid, 5 900 000 were in rural areas. Further 70% of the rural population was at risk of famine-induced starvation (USDA 2003).

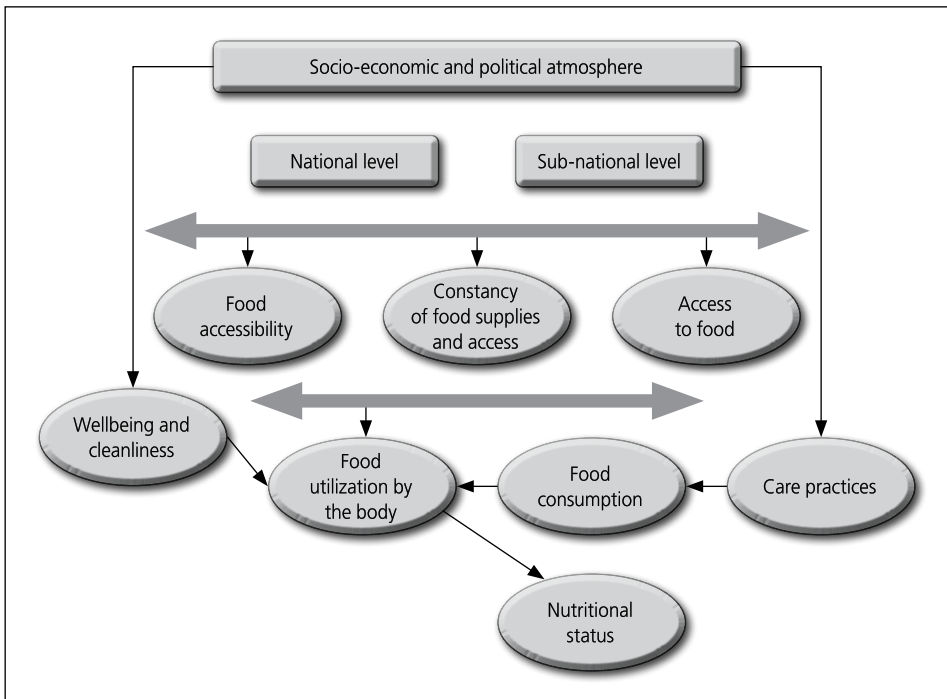
Conceptual framework for food security policy in Zimbabwe

Food is an imperative for survival and is important in the lives of people, and rural people play a pivotal role as building blocks for food production (Khayundi 2000). Ignorance of agricultural skills interfere with the way they access and utilize agricultural information related to food security policy. This study establishes if the level of ignorance and failure to understand the relevant food security policy have an effect on access to and utilisation of agricultural information towards secured quality food production. Existing literature on food security policy rarely mentions any connection between food quality and safety challenges. An evolving concept on food quality and safety challenges indicate that during 1970,

there were some global concerns over availability and stability in supplies (World Health Organization 1998). In 1983, the concept expanded to include access by vulnerable groups to available supplies. The year 1986 heralds the introduction of the temporal dynamics of food security policy chronic versus transient food insecurity.

The threat to food quality and safety concerning food security policy can be attributed to many factors as indicated in figure 2. The Zimbabwe Agriculture Research Centre (2004) confirmed that low food production in Zimbabwe is a result of and by no means limited to erratic weather patterns. There is, possibly, a combination of separate yet interrelated factors that influence agricultural performance. Pinstrup-Andersen, Pandya-Lorch and Rosegrant (1997) argue that the success of food production in the country resulted from its acquaintance with modern information technologies and the ability to apply them to their agricultural need. The development of mechanised farming in Zimbabwe emphasised information and knowledge intensity. The challenge for Zimbabwe is that there are high levels of illiteracy in agricultural skills within the very communities that are supposed to be active in food production through implementing the food security policy. Many people living in rural areas are elderly, thus making adaptation to new intensive methods of farming and new food security policy a challenge. People based in rural areas are among the most marginalised groups in Zimbabwe with little experience in modern agricultural techniques, yet they play critical roles in food production. Nevertheless, if the Government of Zimbabwe ignores the role of literacy in agricultural skills, it is likely to run the risk of missing the Millennium Development Goal 1 concerning cutting the proportions of the hungry and poor by 2015. However, figure 2 confirmed the factors that contribute to food quality and safety challenges.

Figure 2 Factors contributing to food quality and safety challenges



During the mid 1990s, an evolving concept broadened to include food quality, safety challenges, nutritional balance and food security policy preferences. In Zimbabwe, communal agriculture is recognised as one of the methods important for sustained food production. Due to poorly developed food control systems, food supply systems in developing countries are often fragmented involving a multitude of middlemen. Nevertheless, it is perceived that lack of resources and infrastructure for post-harvest handling, processing and storage leads to severe diminishing of quality and food losses. This exposes it to different kinds of fraudulent practices. Considering that in Zimbabwe, people spend almost 50% of their earnings on food, and among lower-income households, this figure may rise to above 70%, the impact of such fraudulent practices is destructive.

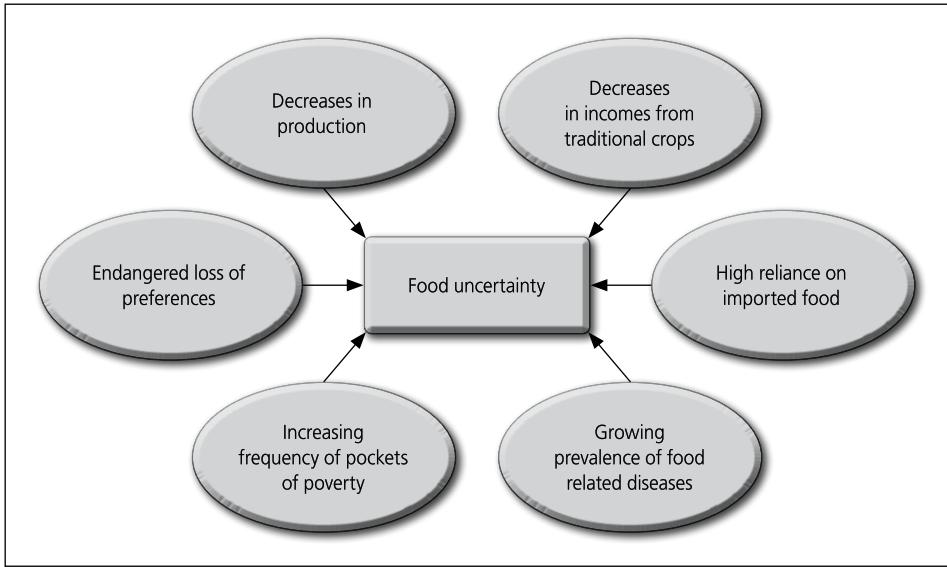
In Zimbabwe, food quality and safety challenges encountered by subsistence farmers and agriculturalists are different from those experienced by developed countries. A number of the developed countries have diverse economies whilst Zimbabwe is an agro-based economy. Agriculture contributes over 60% to the national economy with 80% of the total output produced by smallholder subsistence farmers (FAO 2006). Zimbabwe is, at present, experiencing serious household food insecurity. It is presently estimated that about 60% of the households in the rural areas experience food deficits. According to FAO (2006), 2,3 million households in Zimbabwe are unable to meet their daily food requirements. Mushunje (2004) established that 20% to 25% of Zimbabwean children suffer from malnutrition, which is especially extensive among children residing in communal areas. This is of concern, because according to the Forum for Food Security in Southern Africa (2004), the country was once self-sufficient in food supply and even coped well with the droughts of 1982, 1987 and 1992. Therefore, the challenging question is "What went wrong and what could be done for the best practice, paying particular attention to the role of the state zeroing on the efficacy of the food security policy in the country?"

Access to good quality food has been the main endeavour of the people residing in Zimbabwe. Safety of food is a basic requirement of food quality. Besides safety, quality attributes include: nutritional value, organoleptic properties such as appearance, colour, texture, taste and functional properties. The FAO International Conference on Nutrition (ICN) held in Rome 1992, recognised that regular access to adequate quantities of good quality and safe food are essential for proper nutrition. The Government of Zimbabwe has to play its role effectively through *Operation Maguta* and in a concerted manner; ensure that the quality and safety of food supplies are not compromised; and losses in the food system are minimised.

Food security policy is a flexible multi-faceted concept as evidenced by the numerous attempts to define it. Food security policy exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (WFS 1996). Nevertheless, food safety is the assurance that food will not cause harm to the consumer when it is produced and consumed according to its intended use. Over the past thirty years, there has been considerable reconstruction of the official thinking on food quality and safety challenges and their impact on food security in Zimbabwe. The paradigm shift was on the demand side.

Figure 3 shows that food security policy is compromised by declines in production and in income from traditional crops, high dependence on imported food and failure to implement the food security policy effectively in the country. Further, threatened loss of preferences,

Figure 3 Factors affecting food security policy outcomes in Zimbabwe



food quality and safety challenges increase incidence of pockets of poverty. The factors above also contribute towards threatening food security policy and nutrition in Zimbabwe, resulting in many children being exposed to malnutrition. This affects the performance of school going children since food is a basic need according to Maslow's hierarchy of human needs. The overall purpose of this study is to recommend a way forward for strengthening food security policy and nutrition analysis in Zimbabwe. The recommendations and proposals described in this study are a result of wide consultations with relevant Government representatives and non governmental organisations (NGOs) in Buhera District. This can be used as a learning spring-board for other drought-stricken areas in Zimbabwe. A number of critical lessons learnt can be observed from similar systems for food security policy and nutrition established in other countries such as Ethiopia, Malawi and Somalia. A number of threats will continue to threaten food security policies and nutrition in the region including in Zimbabwe. These threats include climate change and global economic crisis as evidenced by the chronicle of recession and inflation throughout the world. It is recognised in Zimbabwe that food security policy alone without implementing relevant policies such as monetary policy is insufficient to ensure the best practice and therefore, any analytical system needs to consider the impacts of the underlying causes on nutritional outcomes. These underlying causes include the health environment, access to clean household water, sanitation and caring practices.

Moreover, food availability is on its own inadequate to measure food security policy. Therefore, any analysis must also consider food access and consumption patterns, which are both critical in understanding food quality and safety challenges. It is critical that food quality and safety challenges are explicitly linked and reinforced through existing national goals and commitment to ensure that this contributes to longer term goals. For example, the United Nations General Assembly for Heads of States and Governments adopted the Millennium Declaration in September 2000 to which 189 member countries, including

Zimbabwe, became signatories. The Declaration commits member countries to achieve a set of eight goals by 2015. Zimbabwe remains committed to tracking progress towards achieving global targets established for the Millennium Development Goals (MDGs).

RESEARCH METHODOLOGY

A combination of database searches, document analysis and focus group interviews were used to enhance triangulation in the study. Selected subsistence farmers and agriculturalists were respondents to focus group discussions. Representatives for Agriculture Extension Department, Ministry of Agriculture, Grain Marketing Board, *Operation Maguta* and Non Governmental Organisations were key informants. Systematic random sampling was used to select 25 male and 25 female respondents from the age of 18 to above 70 from wards V to IX of Buhera District in Zimbabwe. Data was analysed into themes to promote a chronology of ideas. The study was influenced by the diffusion of the following food security policy pillars: availability, accessibility, stability of supply and access plus safe and healthy utilisation.

Results

The main question addressed was whether *Operation Maguta* addresses food quality and safety challenges in order to safeguard food security policy in the country. This is covered in the results of the study discussed in this section. During the focus group interview with the agriculturalists, it was confirmed that this food security programme was gazetted in Parliament early in 2005. However, in Buhera District it became operational in September 2006 since the programme was implemented in phases. It is a mechanisation programme providing farming machinery such as scotch carts, discs and ploughs to the poor subsistence farmers through participatory or stakeholder approach. The programme comprises stakeholders like agriculture extension officers, local government, Grain Marketing Board (GMB) personnel, District Development Fund (DDF) members and security officers to avoid stealing, corruption and misuse of agricultural inputs. The interpretation of this data could be that the mixed stakeholders mentioned above curb corruption through preventing people from selling their produce to private buyers instead of the GMB and any other form of misuse.

During focus group interviews with agriculturalists, it was confirmed that *Operation Maguta* is a new concept in Zimbabwe adopted from other countries like Malaysia, China and Russia. Document analysis indicates that the aim of *Operation Maguta* was to support the Agrarian Reform Programme through government support. Almost 95% of the respondents from the agriculturalists focus group interviewed reported that the Government of Zimbabwe provided agriculture inputs to the subsistence farmers through the Grain Marketing Board (GMB). The subsistence farmers were given their allocations according to wards because the type of grains differed according to regions. Approximately 80% of the focused group interviews with subsistence farmers also indicated that they were given agricultural inputs through *Operation Maguta*. However, these inputs were not distributed free of charge since recoveries were done during the process of subsistence farmers selling their produce to the GMB. Most subsistence farmers were given agricultural inputs in the form of compound D fertilizers, top dressing fertilizers and maize seed comprising Open Pollinated Varieties

(OPV) like 2M521 or SC513 hybrid seed. The difference between the two is that OPV 2M521 continues to have constant performance even in the next season, whilst SC513 is characterised by low performance in the next season.

The respondents indicated that the subsistence farmers were provided with other inputs such as small grain seeds including sorghum (macia), millet (mhunga), rappoko and herbicides plus insecticides in the first phase of the programme. The hybrid or certified seeds produce high yields if fertilizers and pesticides are applied appropriately. Fertilizers and herbicides promote food quality and safety through maintaining the health status of food crops since hybrid seeds do not respond well in a field full of weeds. Further, high concentration of pest control contributes through squashing army worms and other pests. The inputs also include tractors free of charge, and diesel was provided by *Operation Maguta* together with the District Development Fund (DDF) and GMB. Nonetheless, a list of subsistence farmers who could not access the tractors were compiled through a designed system of village registers. Moreover, those without cattle were assisted by others through the supervision of the village heads. It is important to note that in the first and second phase the produce increased but was unsatisfactory. The Arex officers made sure that they supervised the planting process throughout Buhera District. The interpretation of the data outlined above could be that most members of the community benefited from the programme, including both competent and incompetent farmers. The study confirmed that the food security situation in Buhera District is still in a critical condition as indicated on Figure 1 stated earlier on, even after the inception of *Operation Maguta*.

The champions or competent farmers were given additional inputs as incentives to complement the yields of the previous season. After a good harvest, the champion farmers deliver their produce to the GMB in order to build District Grain Reserves for sale to the community during food shortages, thereby complementing donations from SADC countries such as Zambia. The remainder is reserved for household use. The food quality and safety challenges continue to be a cause of concern in Buhera District and the agriculturalists report that 85% of the agricultural inputs provided by *Operation Maguta* were put in productive use. The respondents revealed that 15%, comprising vulnerable subsistence farmers, were converting the agricultural inputs into misuse. There are some minor cases where other people were involved in selling agricultural inputs to survive and others were observed washing the seeds for mealie meal.

The support of *Operation Maguta* was appreciated by both agriculturalists and subsistence farmers during the focus group interview panels. The programme provides the machinery and other agricultural inputs to the poor subsistence farmers so that they can produce quality food. Further, those who were given machinery in the form of ploughs and scotch carts were motivated to buy cattle for draught power. The community was inspired and given opportunities to use the land which was lying fallow for years. Therefore, many people were encouraged to use the land productively through *Operation Maguta* in order to overcome the food quality and safety challenges in Buhera District. However, the programme had challenges of transport to ferry agricultural inputs to farmers and produce to the GMB. Further, the district experiences natural disasters such as drought year after year and this reduces the yields. Another challenge in the district is the presence of infertile sandy soils. The district lies in the reserves which were created in the 1930–31 Land Apportionment Act, 1930 during the colonial era.



Figure 4 Deficit/Adequate report for Buhera District 2010/2011

Ward	Households	Population		Maize		Sorghum		Millet		Repoko		Total Production Tonnes	Requirement Tonnes	Excess/ Deficit Tonnes
		Ha	Tonnes	Ha	Tonnes	Ha	Tonnes	Ha	Tonnes	Ha	Tonnes			
1	1 122	864	260	7	0.7	15	0.3	19	8	269	941.92	-674.92		
2	1 011	903	270.9	0	0	0	0	16.85	6.74	277.64	848.73	-571.09		
3	988	1 149	344.7	362.26	36	0	0	29.64	5.93	386.63	829.43	-442.8		
4	1 258	1 102.85	330.85	0	0	0	0	2	0.1	330.95	1 056.09	-725.14		
5	1 947	1 938.56	581.57	128.5	102.8	4.5	0.45	210.93	127.01	1 634.5	1 634.5	-907.5		
6	1 050	1 398.25	279.65	3.5	1.75	35	17.5	232.75	81.46	380.36	881.48	-501.12		
7	1 011	849.24	84.92	47.18	18.4	50.55	7.1	185.35	63.02	173.44	848.73	-675.29		
8	1 219	1 028	102.8	235.67	70.7	28.44	0.57	296.62	118.65	292.72	1 023.35	-730.63		
9	1 344	1 518.72	151.87	134.4	72.58	17.92	0.45	17.92	4.48	229.38	1 128.29	-898.91		
10	1 455	957.88	95.79	517.01	31.02	82.45	5.77	126.1	10.09	142.67	1 221.47	-1 078.8		
11	1 241	680.48	68.05	1 646.39	757.34	68.26	20.48	762.8	244.1	868.42	1 041.82	-173.4		
12	1 498	931.26	93.13	1 697.73	509.32	319.6	79.89	39.95	15.98	698.32	1 257.57	-559.25		
13	1 484	7 420	1 221.83	816.2	244.86	115.3	47.26	242.39	72.72	487.02	1 245.82	-758.8		
14	2 424	1 943.24	388.65	486.64	135.91	64.64	8.4	339.36	88.23	620.47	2 034.95	-1 414.5		
15	1 850	9 250	715.33	666.0	199.8	339.2	135.67	209.67	125.8	532.8	1 553.08	-1 020.3		
16	1 405	598.06	59.81	487.07	146.12	374.7	93.67	295.05	44.26	343.86	1 179.5	-835.64		
17	897	4 485	53.74	296.01	29.6	14.95	2.99	128.57	12.86	99.19	753.03	-653.84		
18	1 367	748.66	59.89	1 781.66	356.33	934.1	93.41	205.05	82.02	591.65	1 147.6	-555.95		
19	1 047	5 235	575.85	638.67	63.87	1 173	140.72	425.78	85.17	335.83	878.96	-543.13		
20	1 241	479.85	33.59	1 228.59	245.72	495.2	45.92	136.51	1.37	326.6	1 041.82	-715.22		
21	1 252	588.02	1.18	959.87	0.96	701.2	7.01	133.55	1.34	10.49	1 051.05	-1 040.6		
22	1 900	576.33	40.34	348.33	1.39	734.7	7.35	8.23	0.08	49.16	1 595.05	-1 545.9		
23	1 903	9 515	5.69	921.05	131.71	2 671	133.53	126.87	8.89	279.82	1 597.57	-1 317.8		
24	1 650	8 250	913	4.57	990	195.03	1106	477.58	99.0	695.69	1 385.18	-689.49		
25	1 817	9 085	1 093.23	4.37	1 423.32	270.43	1 557	2 303.7	1 064.8	611.99	15 225.37	-913.38		
26	1 442	7 210	596.03	2.38	14 113.2	282.63	2 259	519.6	30.04	834.65	1 210.56	-375.91		
27	1 292	6 460	327.31	0.98	1 076.7	64.6	2 485	496.99	2.33	564.9	1 084.63	-519.73		
28	1 705	8 525	304	0.61	1 957.91	352.42	4 317	604.31	22.73	959.16	1 431.35	-472.19		
29	1 641	8 205	0	0	1 327.57	119.48	829.8	174.26	0	293.74	1 377.62	-1 083.9		
30	1 336	6 680	62.79	0.06	729.46	69.3	1 217	64.48	0	133.84	1 129.57	-987.73		
31	1 150	5 750	994.75	397.9	318.17	80.5	29.79	272.17	81.65	601.57	965.43	-363.86		
32	1 331	5 655	279.02	1.4	825.63	165.13	4.86	317.81	79.45	250.84	949.47	-698.63		
33	980	4 900	0	0	362.01	18.1	31.22	0	0	49.32	822.71	-773.39		

NB: Grain/person = 0.46kg/day
 = 0.0138 tonnes/month
 = 0.1679 tonnes/year
 Month of supply = Tonnes all grain in ward/district
 Ward/district population x 0.0138 tonnes

Operation Maguta has increased the yields of champion subsistence farmers from less than one ton of maize grain to above two tons per household. This is a great achievement, but it is important to realise that the programme has not reached its target to satisfy the community of Buhera District in the form of inputs and outputs. The inputs could not tally with the needy population of Buhera because not everyone benefited from the programme since others were afraid of getting involved in loan schemes, especially those without assets to be used as guarantee. The agriculturalists compared the total food production per ward and food requirement per ward to evaluate food security policy in Buhera District. The data gathered, showed that there was food deficit in all wards of Buhera for every grain in form of maize, sorghum or millet as indicated on figure 4. The efforts of the Operation Maguta are appreciated in the district, but much more efforts are required to alleviate food shortages of the residents of Buhera as outlined in figure 4.

CONCLUSIONS AND RECOMMENDATIONS

There is a need to have supportive government food security policies such as *Operation Maguta*. Much could be achieved by encouraging the ministries of Finance, Agriculture, Defence and Home Affairs to work together towards alleviating food quality and safety challenges in rural areas, especially Buhera. Further, the study also recommends improving grain storage, avoiding use of ineffective pesticides that can induce the development of resistance amongst grain storage pests and giving rise to the risk of chemical contamination for consumers. The agriculturalists should design training programmes for subsistence farmers on the use of hybrid seeds, herbicides, pesticides and fertilizers. It is recommended that these training programmes be done at the fields of high-performing farmers. Researchers from the institutes of agriculture should have a coordinating committee recording all the challenges facing agriculturalists and subsistence farmers in rural areas. In Buhera South wards XXIV to XXX the study recommends more livestock production rather than crop farming be promoted because it is a dry area suitable for animal husbandry. In areas which are suitable for crop production, the Government of Zimbabwe should design a programme to give livestock to the farmers since crop production has proved to be unsustainable. This can be achieved through heifer loan schemes and any other programme which might be suitable. Urgent measures are needed to address food shortages in Buhera District to ensure that adequate food is accessed by every household.

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