

Food self-sufficiency after land reform: The effects of changes in agricultural land use and ownership brought about by the Fast-Track Land Reform Programme (FTLRP) on Zimbabwe's domestic maize production

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Abstract

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Since the Fast-Track Land Reform Programme (FTLRP) in 2000, Zimbabwe has changed from being mostly maize self-sufficient to being dependent on maize imports to provide food for the country. The FTLRP is seen as largely to blame for the changes in domestic maize production, but debate has arisen over whether the change in land ownership brought about by the FTLRP was the cause of these changes and has resulted in a decline in the country's maize self-sufficiency. This is significant in finding whether or not communal farmers can be depended on to ensure food self-sufficiency in a country. In finding whether the changes in land ownership and use brought about by the FTLRP resulted in a decline in maize self-sufficiency, secondary data from government documents, reports and scholarly articles was analysed, with a particular focus on changes in maize production, land ownership and efficiency between large-scale commercial farmers and communal farmers in Zimbabwe between 1980 and 2010. Communal farmers are found to be more efficient in their land use and so are capable of ensuring food self-sufficiency, but they lack incentive to do so, mainly as a result of economic challenges being faced by the country that have hindered the government's ability to subsidise farmers. As a result, commercial farmers are also found to be imperative in producing cash crops for the international market so that returns can be used to fund the incentivising of communal farmer food crop production. These findings give rise to the conclusion that changes in land ownership and use did result in a decline in maize self-sufficiency, but this was more as a result of poor organisation and timing rather than the ability of the communal farmers.

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ACRONYMS AND ABBREVIATIONS

AIDS.....	Acquired Immune Deficiency Syndrome
CA.....	Communal Areas
ESAP.....	Economic Structural Adjustment Programme
FANRPAN.....	Food, Agriculture and Natural Resources Policy Analysis Network
FAO.....	Food and Agricultural Organisation of the United Nations
FFSSA.....	Forum for Food Security in Southern Africa
FTLRP.....	Fast-Track Land Reform Programme
GNU.....	Government of National Unity
HIV.....	Human Immunodeficiency Virus
IRD.....	International Relief & Development
IRIN.....	Integrated Regional Information Networks
LSCF.....	Large-Scale Commercial Farm
MDC.....	Movement for Democratic Change
MDG.....	Millennium Development Goal
NGO.....	Non-Governmental Organisation
NR.....	Natural Region
RA.....	Resettlement Area
SSCF.....	Small-Scale Commercial Farm
UN.....	United Nations
UNCDF.....	United Nations Capital Development Fund
USAID.....	United States Agency for International Development
WFP.....	World Food Programme
ZANU (PF).....	Zimbabwe African National Union-Patriotic Front
ZNWLA.....	Zimbabwe National Liberation War Veterans Association

CHAPTER I: INTRODUCTION

Development Focus: Food Security

According to The World Food Summit of 1996, food security exists when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996). Over the years, food security has been an issue of increasing importance with regards to development, with “recent decades...see[ing] a significant change in the thinking on food security...mainly due to better understanding of the various factors causing both food crises and the vulnerability of entire countries to famine” (United Nations Capital Development Fund [UNCDF], 2007, p. 17). In 2000, when the Millennium Development Goals were agreed upon by members of the United Nations, the first goal was – and still is – to “eradicate extreme poverty and hunger” (United Nations [UN]). This shows an acknowledgement of the problematic nature of food insecurity in the development of countries in the global South. It is essential that food security be addressed as a development issue as “many years of empirical evidence point to the negative impact of hunger and malnutrition on labour productivity, health, and education, which ultimately leads to lower levels of overall economic growth” (Guha-Khasnobis, Acharya & Davis, 2007, p.1). Guha-Khasnobis et al. (2007) note that “hunger and malnutrition are major causes of the deprivation and suffering targeted by all of the other MDGs [and]...without rapid progress in reducing hunger, achieving other MDGs...will be difficult, if not impossible” (p. 2). As a result, addressing food security serves as a starting point for addressing other developmental issues, thus making it exceedingly relevant in development as a whole.

Specialist Focus

Food security includes food availability, food accessibility and food use (World Food Programme [WFP]). Some academics and organisations, including Frayne, Moser, and Ziervogel (2012) and the FAO, also include food stability as a food security outcome. Before food accessibility, food use and food stability are addressed – and they will not be addressed in this thesis – it is imperative to ensure that food is available. If there is no food available in a country, then there cannot be food accessibility, good food utilization, and food stability cannot be considered as there would be no continuity in food accessibility and supply. In the same way that addressing food security is a starting point in addressing other developmental issues, food availability is a starting point in addressing food security. While greater attention is being paid to other elements of food security, food availability is increasingly taking a back seat, yet it remains an essential element of food security, especially given that there are some regions that are unable to produce enough food to feed their populations. As a result of its importance as a precondition to food accessibility, utilization and stability, as well as the inadequate availability of food in certain regions, my thesis will pay close attention to issues regarding food availability so as to draw back attention to an essential element in ensuring food security.

Food availability is defined as “the availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid)” (FAO), and “includes the production of adequate crop, livestock and fisheries as well as the collection of wild fruits and resources for migratory and indigenous communities” (Frayne et al., 2012, p.22). Imports and food aid are supplementary to domestic production, with imports coming in provided that the country in question can afford them, and food aid coming in as a result of the country being unable to import adequate food from other countries, as well as produce its

own, thus facing a food crisis. Given the significant power and influence of the neoliberal framework on a global scale driven by the Global North, self-sufficiency continues to be discouraged in favour of liberalized trade. There is, however, a growing realization of the imperfect competition that puts developing countries at a disadvantage against developed countries when it comes to trade and domestic crop production that ensures food self-sufficiency requires greater emphasis as it may be a more feasible, reliable and affordable option for many developing countries. Of the three components of food availability mentioned above, therefore, I shall focus on domestic crop production, centring my thesis on food self-sufficiency, which “has become a goal in many developing countries (Ruppel and Kellogg, 1991, p.3).

Food self-sufficiency through domestic crop production requires the use of land, and so it follows that whoever owns the land and the way in which the land is used has an effect on how much food is produced by the land. Land ownership, particularly in terms of different types of farmers, is imperative to study when analysing domestic crop production as it determines access to resources, the way in which the land is used in terms of the types of crops grown and the amount of land that is cultivated. There are many factors that affect food self-sufficiency through domestic crop production, including environmental ones that, in some cases, are beyond human control. The effect of changes in land ownership on food self-sufficiency is, however, particularly important to study given the contentious nature of land ownership in some developing countries, coupled with the pursuit of increased domestic production and deciding which types of farmers should be responsible for growing food for a nation, and the amount and quality of land that that they may access. As a result, this thesis will focus on how and whether land ownership and use has affected food self-sufficiency.

One of the ways in which land ownership and land use is changed is through land reform, which is defined as “compris[ing] [of] compulsory takeover of land, usually by the State, from the biggest landowners, and with partial compensation; and the farming of that land in such a way as to spread the benefits of the man-land relationship more widely” (Lipton, 1993, p. 643). Land reform is significant in how changes in land ownership and, sometimes, use of land, occur, and so is an appropriate occurrence to observe any changes in land ownership and use that may affect food self-sufficiency in a country. Although land reform is often a contentious issue, in this thesis, it will only be addressed in relation to the changes in land ownership and use and their effect on food self-sufficiency.

Empirical Focus

The relationship between changes in land ownership and use and domestic crop production will be studied in Zimbabwe, a country that underwent a fast-track land reform programme in 2000. The Fast-Track Land Reform Programme (FTLRP) was the third phase of land reform in Zimbabwe since 1980. The agricultural sector in Zimbabwe was divided into commercial and communal farming (Richardson, 2004, p. 50). In 1980, when Zimbabwe gained its independence from Britain, land ownership was skewed in favour of white large-scale commercial farmers, who owned the majority of land while communal farmers, who were in the majority, owned a minority of the land. The redistribution of land under Zimbabwe’s land reform was essentially a redistribution of white-owned large-scale commercial farm land to communal farmers, with “the broad aims of the resettlement programme [being] to redress the historical imbalance in access to land between the races, and to create an opportunity for alleviating the economic plight of some of the poorest rural people, whilst maximizing the economic potential of the land” (Dudley, Madeley & Stolton, 1992, p. 89-90). The first phase of land reform was from 1980 to 1998, the second in 1998 (Gunjal, Shiferaw, Dradri &

Rammala., 2008, p. 10), and the third, which came about as a result of a second phase that had not met the expected targets and other politically contentious issues, was officially launched in July 2000 and resulted in rapid and significant changes in land ownership. Under the FTLRP, land that was owned by large-scale commercial farmers was distributed and given to farmers who either fell under Model A1 or Model A2. The purpose of Model A1, which is what the FTLRP is largely based on, is to “decongest communal areas and is targeted at land-constrained farmers in communal areas” (Zikhali, 2008, p. 4) while Model A2 is “a commercial settlement scheme comprising small-, medium-, and large-scale commercial settlements, intended to create a cadre of black commercial farmers” (Zikhali, 2008, p. 4). The FTLRP came to an end in October 2002 (Sachikonye, 2003, p. 227). An in-depth discussion of the history and process of land reform in Zimbabwe can be found in Bowyer-Bower & Stoneman (2000) and Richardson (2004).

Although Zimbabwe produces a variety of crops, close attention shall be paid to the production of its staple crop, maize, as most of the nation’s people’s diet is made up of maize and a change in the production of this crop can be said to be reflective of the country’s state of food availability. The specialist focus of this thesis, therefore, is the effects of changes in agricultural land use and ownership brought about by the Fast-Track Land Reform Programme (FTLRP) on Zimbabwe’s domestic maize production. This thesis shall argue that changes in land use and ownership brought about by the FTLRP in Zimbabwe resulted in a reduction of the country’s maize self-sufficiency.

The following will require data:

- Total cereal production before and after the FTLRP
- Maize production before and after FTLRP

- Imports and exports of maize before and after FTLRP
- Land distribution before and after FTLRP
- Land use before and after FTLRP

Data showing changes in maize production will serve to show changes in production amounts as far as the country's staple food, which is also the food crop with the highest yield in the country, is concerned. This will also serve to show whether there have been any changes in domestic maize production since the FTLRP took place. This data will also be compared with data showing total cereal production so as to find whether changes in maize production can be seen as somewhat representative of changes in total cereal production. There will also be data provided showing maize production by commercial farmers and communal farmers separately so that the different contributions to maize production can be noted and analysed.

Data showing imports of maize before and after FTLRP may present a clearer view of the extent to which the country has been dependent on food imports to feed its people prior to and after the FTLRP, and will also assist in highlighting the country's degree of self-sufficiency in maize based on how much food it has had to purchase to substitute food it has been unable to produce. Data showing exports of maize before and after the FTLRP will be used to show periods of surplus maize production when compared with maize import, and maize production amounts, as well as showing if there have been any changes in maize export amounts since FTLRP. Drawing such a conclusion from this data may, however, be problematic as there is the possibility of food being exported, even when it was inadequate to feed the population. Data showing changes in land use and distribution is imperative as these are the two factors that are being examined in this thesis in terms of defining maize production in Zimbabwe. Data showing land distribution before and after FTLRP can be divided into three main aspects, being the amount of land under each farm type, the number of farmers under each farm type sharing the land, and the amount of land under each farm

type in each natural region. This data is necessary to show the extent of changes in land ownership. Such information may help to show the degree of changes in land ownership brought about by the FTLRP, and can then be used to find whether there is a correlation between these changes and changes in maize production. Data showing changes in land use will show how much of the land available is being utilized to produce food for the country, in comparison to how much was being used before FTLRP. This data will be shown for each farm type. This is essential in addressing the efficiency of maize production, and changes in maize production amounts in Zimbabwe. Changes in land use will also show whether there are changes in the type of crops that are being grown, types of crops being between cash crops and food crops. This data will be useful in deducing the relationship that exists between different types of crops, and whether an emphasis on one can threaten the other. Changes in maize production will be used as a representation of themselves, as well as food crops, while changes in unmanufactured tobacco will be used to show changes in cash crop production.

Although it is the changes in production surrounding the FTLRP in 2000 that are under scrutiny, data, depending on availability, shall stretch from 1980 to 2010. Making data available from 1980 is essential because the transfer of land from large-scale commercial farmers to small holder farmers that took place as a result of the FTLRP was a culmination of land reform, with similar changes in ownership and land use, which began in 1980. It is essential to analyse the data that is available showing any changes in production since land reform after independence began so that, while the changes that the FTLRP brought about remain the main focus, the data that reflects the state of commercial and communal farming from the time that land reform began can be used to understand the impacts in their totality. Data will stretch as far as 2010 so as to allow for any adjustments that may have occurred years after FTLRP, and to ensure that the results being analysed portray a more wholesome

picture of relatively long-term results rather than sudden changes due to a fast-paced land reform.

“Before and after FTLRP” does not indicate only two sets of data, but rather some years before FTLRP, and some years after FTLRP. The term “land ownership” will not refer to who owns the land based on title deeds and tenure, but to who owns it in terms of the type of farmer, be it commercial or communal farmer, who has authority over it. “Land use” refers to the amount of land that is used for cultivation as a proportion of the land available for cultivation on different farm types, and will not refer detailed uses of land beyond the farming of food crops and cash crops.

Given my distance from Zimbabwe, as well as a lack of resources, all of my data will be secondary data from government documents, reports by non-governmental organisations and institutions, newspapers and scholarly articles.

Political Context

Given the complexity of the social, economic and political environment in which the FTLRP took place, the political context is worthy of brief exploration so that the other factors surrounding and affecting the changes in maize self-sufficiency in Zimbabwe can be kept in mind as changes in land use and ownership are discussed and evaluated, although they are not the focus of this thesis.

After Zimbabwe’s independence in 1980, the new nationalist government under President Robert Mugabe “focused on reconstruction, reconciliation and redistribution under an apparently socialist banner carefully tempered by pragmatism” (Hammar & Raftopoulos,

2003, p. 4). Redistribution of land to redress social imbalances was mapped under the Lancaster House constitution, where land could be acquired through a “willing-seller, willing-buyer” approach for the first ten years, a hindrance to the rate of land redistribution. The economic structural adjustment program (ESAP) adopted by the country in the early 1990s resulted in an increase in poverty and a higher inflation rate, which was worsened by greater strains on the economy through troop deployment to the Democratic Republic of Congo in August 1998. Government corruption worsened, and protests by civil rights movements against harsh social and economic conditions grew. In 1997, the Zimbabwe National Liberation War Veterans Association (ZNWLA) began demanding greater compensation for their role in Zimbabwe’s independence. Acknowledging their importance in Zimbabwe’s independence and fearing loss of support, Mugabe awarded war veterans gratuities in cash and pieces of land, worsening the country’s already struggling economy (Scoones et. al, 2010). Regardless of these gratuities, war veterans started invading white-owned commercial farms, largely propelled by the slow pace of land redistribution. Worsening social and economic conditions saw donor organisations and the international community insisting on government transparency and accountability, but this pushed the government more towards national sovereignty, blaming Western interference for the country’s problems. A “no” vote in “the constitutional referendum held in February 2000 challenged the hegemonic and increasingly authoritarian rule of President Robert Mugabe and his ruling nationalist Zanu (PF) party” (Hammar & Raftopoulos, 2003, p. 1), raising alarm, especially with parliamentary elections approaching in June 2000 and so, to regain political popularity, the FTLRP served in part as a means to this end (Hammar & Raftopoulos, 2003). Violence and intimidation were used in the acquisition of land. It remains widely contested, however, whether the land invasions were a top-down approach or peasant-led and facilitated by war veterans (Scoones et. al, 2010, p. 23). What is certain,

however, is that the economy of the country was further worsened by the disruption in farming that arose from the invasions, and socio-economic conditions worsened for many of the citizens in the country, especially farm workers who lost their livelihoods along with the land invasions. The crisis in the country, long overdue loans and the farm invasions received a lot of international condemnation, particularly from Western governments and especially Britain (Scoones et. al, 2010). In response to issues such as a lack of respect for the rule of law and property rights, prevalent and extensive political violence and alleged human rights abuses (Chingono, 2010, p. 66), sanctions were imposed on the country, mostly by the USA, the UK, the EU, Canada and Australia. Chingono (2010) notes that, “regarding the Zimbabwean situation, consensus prevails among the Western states that the fundamental objective of the Zimbabwe sanctions is to restore democracy and normalcy as according to the Western modern standards of democracy” (p. 66). Zanu-PF has continued with its rhetoric that Western motives, as well as those of the main opposition party, Movement for Democratic Change (MDC), are those of modern-day colonization and blames the imposed sanctions for the difficulties that the country is facing. The instability of the country in the early and mid-2000s discouraged investment by Western countries, but the formation of a government of national unity (GNU) and the change in currency from the Zimbabwe Dollar to the use of the US Dollar and the Rand has stabilised the country, although political factionalism has increased, and the future of the country remains uncertain in the face of looming parliamentary elections.

Given the context within which the FTLRP took place in Zimbabwe, there are many factors of importance that could be addressed in evaluating the changes in maize self-sufficiency after the FTLRP, including sanctions and government policies. Changes in land use and ownership are, however, particularly important to evaluate regarding these changes as there is

not plenty of literature that is available that looks exclusively at these changes and how they relate to changes in food self-sufficiency. Moreover, a study of changes in land use and ownership serve to highlight whether the policy of land redistribution itself, seen as essential to redress social imbalances and further shake off a colonial past in many developing countries, is problematic in a nation being able to be food self-sufficient.

The following chapter, Chapter II, shall explore the debates surrounding the issues being addressed in this thesis. These debates are those surrounding the importance of food availability in relation to food security, nations growing their food as opposed to purchasing it on the international market, the relationship between the production of cash crops and food crops, and the responsibilities of commercial and communal farmers in growing food to feed a nation. These debates will be explored first on a global scale, and then on a regional and national scale. Chapter III shall consist of empirical research as outlined in the empirical research section of Chapter I, but shall begin with data and generalizations regarding the issues on a global scale, before narrowing down on Africa and, more specifically so, Zimbabwe. Chapter IV shall be an analysis and discussion of the data provided in Chapter III, and Chapter V shall comprise of the conclusion and recommendations for the issues being addressed by this thesis and, more so, justify the argument that has been put forward in this thesis.

CHAPTER II: LITERATURE REVIEW

Over the years, there has been a shift in how food security is addressed, with less emphasis being placed on food availability on the macro-level, and greater attention being paid to the individual and food accessibility, food use and food stability (Scanlan, 2001, p. 233). While this shift has taken place, issues continue to arise over which dimensions of food security should receive more attention when addressing food security. While food use and food stability also receive a significant amount of attention when discussing food security, it is the tension that arises between food availability and food accessibility that is more prominent in addressing and formulating strategies to ensure food security. Sen (1981) sees starvation as being the result of challenges in food entitlement rather than food availability (p. 7) and claims that “larger recent famines confirmed that famines could thrive even without a general decline in food availability” (p. 154). Sen’s argument is supported by the UNCDF, which acknowledges that food insecurity arises from both low agricultural production and poor accessibility, but highlights that it is food accessibility, rather than food availability, that is seen as a precondition to food security, because “food production will not increase food security for those without effective entitlements to that food” (2007, p.49). While Tweeten (1999) acknowledges the importance of food accessibility (p. 475), and sees the alleviation of poverty as the alleviation of food security, considering that it is the poor who have little entitlement to food (p. 476), he argues that, given that the majority of food insecure people in developing countries live in rural areas, food availability, or production, is essential for food accessibility, and so it remains the most fundamental course to food security (p. 475). Sasson (2012) states that inadequate food supply is the key cause of food insecurity and global supply of food is insufficient. He also advocates for more food to be produced so that output does not fall below demand, thus pushing up food prices. The claim that global food supply is

insufficient is, to a certain degree, also supported by Neo Malthusian perspectives which argue that the limited availability of food is the most significant challenge regarding food security, given that population growth continues to compromise the earth's ability to supply food for the global population (Scanlan, 2001, p. 235). The Director-General of the FAO, José Graziano Da Silva, however, counters the argument that sees a growing population as a prime factor of food insecurity, claiming that there is enough food being produced in the world to feed its inhabitants (da Silva, 2012). Clover (2003) supports da Silva (2012), highlighting the failure of efforts to address food insecurity through technical solutions pertaining to increasing production so as to feed a growing population, arguing that population growth is an "aggravating factor" and not a cause of food insecurity as resources exceed the needs of the people (p. 7). In the case of Africa, Clover recommends that the key to addressing food insecurity lies in improving the performance of the agricultural sector (2003, p. 12).

When it comes to food availability, nations have the option of either growing their own food domestically or of purchasing food on international markets. The option of growing food domestically is aligned with efforts towards self-sufficiency, while the option of purchasing food on international markets reflects a more open stance towards trade under a neoliberal model. Some of the support for countries purchasing food rather than opting for self-sufficiency is based on comparative advantage and efficiency. Hill (2011) notes that, "international trade allows a country to specialize in the manufacture and export of products that can be produced most efficiently in that country, while importing products that can be produced more efficiently in other countries" (p. 161), and that higher growth rates are experienced in countries that have taken a more open standpoint regarding international trade than those with economies that are not open to trade (p. 172). Support for the purchasing of

food on the international market and production based on comparative advantage can also be drawn from the nature of the structural adjustment programmes put forward by the World Bank, which argued that “because global market integration exacts pressures for production everywhere to be defined by the rationality of comparative advantage it is expected that integration will lead the global food economy as a system towards increasing efficiency, maximized production and stabilized low prices and supply” (Weis, 2007, p. 119-120). Those in support of a model based on efficiency argue that it is imperative for the world’s production to be directed by competition accompanied with comparative advantage within the confines of liberalized trade as the foundation of the global food economy as this will result in the maximization of food supply and will prove to be beneficial for populations on a global scale (Weis, 2007, p. 164). Based on these arguments, former US agriculture secretary, John Block, concludes that “the idea that developing countries should feed themselves is an anachronism from a bygone era [and] they could better ensure their food security by relying on US agricultural products, which are available, in most cases at lower cost” (Bello, 2009, p. 136). Dodaro (1991) criticizes the argument for trade and production based on comparative advantage leading to efficiency, stating that, within international trade, there is a predominance of imperfect competition and recurrent market distortions that override the ideal functionality of comparative advantage (p. 1159). Weis criticizes the efficiency argument that is backed by the World Bank and structural adjustment programmes, and supports Dodaro in highlighting this imperfect competition by stating that the argument in favour of comparative advantage ignores “the subsidy-fuelled market distortions at the heart of the global food economy” (2007, p. 125).

The fluctuations of prices on the global market have also raised questions as to whether or not food self-sufficiency is preferable over importing food. Economists see international trade as

having the ability to provide stability to domestic prices because of the lower variability of production on a global scale than on a domestic scale (Ruppel & Kellogg, 1991, p. 18) but O'Hagen (1976) highlights that "countries have faced considerable difficulties arising from fluctuations in import prices of food and feed" (1976, p. 359). Olivier de Schutter, special rapporteur of the United Nations on the right to food, supports O'Hagen's claim regarding the fluctuations of import prices, stating that "if most poor countries are still very vulnerable, it is because their food security depends too much on food imports whose prices are increasingly high and volatile" (Sasson, 2012, p. 2). Ruppel and Kellogg (1991) also highlight that, when dealing with commodities that are not high in demand on the world market, volatility is high and so depending on international markets may be a huge risk (p. 18). Based on arguments of distorted markets and price instability, Bello (2009) states that "the goal of agricultural policy should be food self-sufficiency [and a] country's farmers should produce most of the food consumed domestically" (p. 136). Ruppel and Kellogg (1991) argue for self-sufficiency to a certain degree so that, in the event that the subsidies for farmers in high income countries should run out, causing prices to rise, there is still an adequate amount of food being produced for a population (p. 21) and food self-sufficiency can allow for foreign exchange to be used to increase imports in other economic sectors while maintaining food security (Ruppel & Kellogg, 1991, p. 108).

Closely related to the debates surrounding food self-sufficiency and the purchasing of food for a nation is the dilemma that exists when considering whether countries should focus on food crops or cash crops. Emphasis on food crops implies efforts towards self-sufficiency while emphasis on cash crops can be said to be more inclined towards trade and production based on comparative advantage. One of the significant issues regarding this matter is the correlation between the production of cash crops and that of food crops. Storey (1986) refers

to the two arguments that surround this issue as the “competition argument” and the “complimentary argument”. The competition argument states that “export crop production ‘crowds out’ the production of basic food staples” (Storey, 1986, p. 44). In other words, an increase in the production of cash crops is at the expense of the production of food crops. Storey states that those who support the competition argument claim that the production of cash crops will “increasingly be controlled by an expanded agribusiness, and thus lead to an increase in rural poverty and hunger through competition between food and export crops for scarce capital, land and other inputs” (1986, p. 44). Those in support of the competition argument also argue that “at both the household and national level...sales of agricultural output undermine access to food” (Maxwell & Fernando, 1989, p. 1686). Contrastingly, the complimentary argument does not see the production of cash crops as posing a threat to food crops. This argument is supported by the World Bank, particularly in the Berg Report of 1981, stating that “export crop production need not affect food production levels negatively and that, in fact, the two forms of production are most likely to expand or decline at the same time in any one country” (Storey, 1986, p. 44). Govereh and Jayne (1999) suggest that “commercialization of smallholder agriculture, featuring high-valued cash crops, can under certain conditions provide a strong stimulus to smallholder agriculture and have major indirect benefits for food crop productivity” (p. 19). Von Braun and Kennedy argue that “there is no competition: most countries either manage a combination of growth in both cash cropping and food production or fail to manage either” (Maxwell & Fernando, 1989, p. 1687).

Aside from the conflict between the complimentary argument and the competition argument, the growth of cash crops is also encouraged so that revenue may be used to purchase food, rather than grow it. Govereh and Jayne (1999) note that “economists have long advocated

cash crop production as part of a broader strategy of comparative advantage [with] the underlying premise [being] that markets allow households to increase their incomes by producing that which provides them with the highest returns to land and labor, and then use the cash to buy household consumption items” (p. 2). Given that these issues are only imperative in this study on a national and global scale rather than at household level, this argument is only highlighted at the household level to reflect the possible effects of cash cropping and food cropping on communal farmers. While the growth of cash crops may be seen as an opportunity to earn foreign currency to purchase food on international markets, Lappé, Collins and Fowler (1977) highlight the tension between this option and growing food crops to feed the population, noting that, at times, those who toil to grow the food so that it may be available may still go hungry while it is exported to other countries. Another argument against cash cropping is that it exacerbates inequality and poor distribution of wealth. Maxwell and Fernando (1989) argue that, in a static sense, cash cropping is often only limited to those who are better off, given how they benefit from economies of scale, are in a better position to overcome any obstacles that may serve as limitations to their access to markets, and are able to benefit from the support that they receive from the state (p. 1684). This argument is necessary to highlight as it introduces one of the questions which shall be addressed shortly regarding the role of commercial farmers, assumed to be better off in terms of the resources that they may have at their disposal, and that of communal farmers when it comes to producing crops for a nation.

Efforts towards ensuring high domestic crop production raise the debate over the importance of different types of farmers when it comes to growing food for a nation. This tension exists mainly between commercial farmers being responsible for ensuring that there is enough food being grown for a nation and communal farmers holding this responsibility. The arguments

are largely based on efficiency and access to resources. On one hand, commercial farmers are encouraged to take charge of domestic production. Maxwell (2004) argues that the growth of agriculture lies in large commercial farms which “are able to deliver predictable and traceable volumes of high quality produce to increasingly sophisticated and integrated market agents [while] farms that cannot meet these requirements will survive only to the extent that they are subsidised by non-agricultural incomes”. Economists tend to agree with the significance of large-scale commercial farms’ contribution to domestic production and exports (von Blanckenburg, 1994, p. 3). On the other hand, there is the argument that small scale farmers are more efficient than large scale farmers in terms of land use and providing higher yields of output per hectare, which would put them in a better position to provide food for a nation. According to Wiggins (2009), “more farm output can be achieved largely through communal development” (p. 15). The ‘inverse farm size-productivity relationship’ put forward by agricultural economists supports small farmers in terms of efficiency, arguing that redistribution of land from large to small farms results in increased efficiency based on small farmers using a greater proportion of their land than that used by large farms, and resulting in higher output per hectare (van den Brink, Thomas, Binswanger, Bruce & Byamugisha, 2006, p. 19). Hazell (2005) also supports small-farm led growth as it may increase their income and bring more people in rural areas out of poverty, as well as ensuring that economic growth is more equitable (p. 94). There is also support for the involvement of agribusiness with small scale farmers in domestic crop production. In the World Development Report 2008, agribusiness is encouraged as it provides communal farmers with the resources that they need to increase production and brings them into the global market (World Bank, 2008). Islam (1994) notes that “commercialization of agriculture that is based on communals and on technological progress in food...production leads to an expansion of income and employment...and can strengthen food security” (p. 118). Amanor (2009), however, states

that “it is likely that the greatest benefits of investments in the ‘agribusiness for development agenda’ will accrue to the agribusiness companies and transnational supermarket chains and not to the communal farmer” (p. 251).

Literature Review: Zimbabwe

The levels of food insecurity in Zimbabwe have stirred plenty of debate over how best food security in the country can be addressed, especially given that Zimbabwe was once food self-sufficient. Given that crop production has fallen over the years in Zimbabwe, and that the government has had difficulty in meeting the expenses of importing food for its people, food availability is at the forefront of many perspectives in addressing food security in Zimbabwe. At a FFSSA/FANRPAN workshop on food security in March 2004, “the main concerns expressed by participants...were about food production and food availability” (Wiggins, 2004, p. 28). While food availability has been of concern, there are also approaches to food security that acknowledge the necessity of food availability in food security, but emphasize that food availability is not the answer for food security in Zimbabwe, and that accessibility, stability and utility are also essential. Rohrbach (1989) notes that, “while rapid growth in maize production may be a necessary condition for food security in Zimbabwe, it is not a sufficient condition [but] the ultimate objective of food security is to ensure all households have consistent access to enough food for a healthy life” (p. 73). Wiggins notes that NGOs have expressed great concern over access, raising questions over “how better to target food relief within the communal areas; and about what to do in urban areas and mining camps, and the former LSCF farm workers and persons living with HIV/AIDS” (2004, p. 28). Rohrbach (1989) recommends that an all-encompassing approach be taken towards food security, with “food security policies...[encompassing] development strategies affecting food access as well as food supply” (p. 74).

Given that Zimbabwe was once a country with “an agricultural yield of some crops that was the best in the world and one of the few African countries that was relatively self-sufficient in food” (Richardson, 2004, p. 65), the change to a country that heavily depends on food imports has been drastic. Over the years, debates have surrounded whether Zimbabwe should grow its own food, or purchase it on international markets. This debate can also be framed in such a way that either the use of arable land is maximised under communal farmers (thus working towards self-sufficiency) or foreign currency can be earned under the large-scale commercial sector (so that food can be purchased on international markets) (Weiner, 1988, p. 77). Some of those who advocate for Zimbabwe growing its own food and striving towards self-sufficiency do so on the basis of affordability for the country and price stability.

Pinckney (1993) notes that “liberalization of the staple food market should ideally stimulate increased food production...[but], unfortunately, these benefits only occur in the long run [while], in the short run, liberalization is often thought to result in...rapid fluctuation price” (p. 325). Jayne and Rukuni (1993) state that “self-sufficiency in white maize...has normally been an explicit policy goal on the grounds that the world market for white maize is thin and that the producer price needed for self-sufficiency can normally be achieved at price levels below import parity” (p. 334). Wiggins (2004) supports the above claim, stating that “domestic production is far and away the cheapest source of staple food in Zimbabwe” (p. 29) and Jayne and Rukuni note that those who advocate for self-sufficiency “argue that a departure from [its] objectives...would thus represent an agricultural policy failure” (1993, p. 337). Koester, however, argues that “there is considerable potential for intra-regional trade in maize to improve food security in Southern Africa as...trade could [also] assist in risk management strategies such as holding sufficient stockpiles of grain to provide adequate national supplies during periods of extended drought” (Blackie, 1990, p. 387). Lipton,

however, disagrees with Koester, arguing that “until there is a major increase in rural output...it is unrealistic to expect the development of a reliable and significant level of intra-regional trade in maize” (Blackie, 1990, p. 387).

Zimbabwe’s agriculture is orientated with both the growth of cash crops and food crops, but there is debate over whether or not greater attention should be paid on one type over the other, as well as the potential implications that increased focus on one over the other may have, and whether there is a correlation that exists between the growth of food crops and cash crops in Zimbabwe. The argument that supports the growth of cash crops over food crops is based on the high profitability of cash crops, and that the returns from cash crops can be used to buy inputs for food crops. Jayne (1994) notes that there is large support throughout sub-Saharan Africa that food security can be achieved through increased emphasis on cash crop production as it provides higher returns to land and labour, thus promoting the food security and income growth of smallholder farmers (p. 387). Although there are the prospects of high returns, Jayne also adds that “cash crop production can be economically unviable...in an environment of high food-marketing costs to rural areas” (p. 387). This is supported by Keyser (2002), who states that, while cash crops such as tobacco, roses and coffee have high returns for the country, they are also expensive to produce and so “it is also probable that traditional field crops including maize, cotton, groundnuts, soybeans and wheat will have an important role to play in providing supplemental income and steady cash flow needed to sustain the overall cash system” (p. 53).

Some of the most significant issues surrounding Zimbabwe regarding domestic crop production largely involve the types of farmers who are responsible for this production.

Debate arises over who has a greater degree of relevance when it comes to food production in

the country, and whether production is maximal under large scale commercial farms or communal farms which, in this case, also include the resettlement areas and the new farms under the A1 model where small-scale farming is adopted. In other words, there is tension over which farm types can ensure that food crop productivity is, and remains high. Those who argue for more land being under communal farmers so as to increase productivity do so on the basis of efficiency. Thomas (2003) claims that, “to maximize agricultural production under-utilised or barren commercial farm land must be made to fulfil its productive potential” (p. 696). Cliffe (1988) supports this claim, adding that the expansion of communal areas may be a viable alternative to increase the production of food for subsistence or sale, given that land that was previously unutilized is now being used for crop production (p. 21). In 1997, the Zimbabwe High Commission went beyond the argument of underutilization of land by commercial farmers to their diversification of land use to activities such as safari operations and game ranching, arguing that, given this diversification, “the smallholder sector operates at better and higher levels of productivity than the [large-scale commercial farming sector], [thus]...underpin[ning] the food security in the country and region as a whole” (Stoneman, 2000, p. 52-53). On the other hand, Thomas highlights that, in 1982, the Zimbabwean government criticised the low efficiency and low productivity of communal areas, blaming it on traditional tenure and poor farming practices (2003, 701). These criticisms were also sounded by the Commercial Farmer’s Union, who claimed that problems hindering production in communal areas would be replicated in other areas upon the redistribution of land (Cliffe, 1988, p. 15). Richardson (2004) sees an increase of land under communal farmers in Zimbabwe as a characteristic example of a “tragedy of the commons”, whereby there will be degradation of land due to a lack of secure tenure, and claims that the unsustainable nature of communal farming practices would result in the perpetuation of land degradation, even on better land (p. 51). This echoes what Moyo (2002) refers to as “a

common middle class belief in the myths that the poor degrade land and that the large scale commercial sectors use land efficiently” (p. 13). Stoneman, however, states that the argument against communal farming fails to acknowledge that communal farming moved from subsistence in 1980 to contributing the majority of national output under unfavourable conditions (2000, p. 52). The Zimbabwe Farmer’s Union also argues that smallholder farmers are able to “produce at levels comparable to the large-scale commercial sector” (Bowyer-Bower, 1988, p. 67). In terms of yield, J. Tattersfield of the Ministry of Agriculture’s Department of Research and Specialist Services suggested that the average maize yield in communal areas was significantly lower than that in large-scale commercial farms, a sentiment agreed on by the Whitsun Foundation and Bill Kinsey who, thus discouraged the redistribution of land to too many communal farmers (Weiner, 1988, p. 67). Weiner, however, opposes this argument, stating that efficiency in communal areas can be high provided productive resources are accessible (1988, 68). Weiner also highlights the “methodological problems of comparing high-input farming on high-potential land with low-input farming on poor quality land” which may produce the results put forward by Tattersfield (1988, p. 68). While Richardson (2004) brings the productivity of communal farmers into question given their vulnerability to droughts, Moyo (2000) counters the argument that puts commercial farmers at an advantage due to the availability of drought mitigation schemes, arguing that the majority of large-scale commercial farmers do not have irrigation facilities to stabilise the production of crops (p. 74). Regarding the availability of resources and technology and their effects on crop productivity, however, Weiner (1988) argues that, for there to be efficient land use, increased mechanization is required, and this will require an increase in foreign currency which can be achieved by large-scale commercial farmer production (p. 83).

Given the inevitability of racial relations being incorporated into debates about farming and productivity in Zimbabwe, especially considering the demographics of farm type and land ownership prior to and during the different phases of land reform, some perspectives take a race-based approach in their arguments regarding the efficiency of different farmers.

Compagnon (2011) states that “the government-proffered fiction that Zimbabwe could at least be self-sufficient without a vibrant large commercial farming sector does not stand up to [the] evidence, as large-scale (white) commercial farms have always been crucial in meeting the country’s food security” (p. 184). Thomas (2003), however, states that the argument that black farmers are inefficient is prejudicial and incongruous given that many ‘blacks’ manage farms for absentee white farmers, and claims that his argument is strong in opposing the view that the dispossession of commercial farmers of their land would have detrimental effects on productivity (p. 703).

The main issues surrounding changes in land use and ownership and food self-sufficiency are surrounded by many opposing arguments, which highlight the contentious nature of the matter at hand. In a country such as Zimbabwe where land is of great historical, cultural, social and, to many, economic importance, there is potential for this to come into conflict with the importance of food self-sufficiency. Redistributing land, mainly to black communal farmers is, however, an important policy, as is food self-sufficiency, and so the tension lies in whether or not both can be achieved, that is, finding whether or not communal farmers are able to ensure food-self sufficiency in a country if they own the majority of the land. The arguments outlined above serve as a baseline for this investigation and will be used as a backdrop for data to support the argument that changes in land use and ownership brought about by the FTLRP in Zimbabwe resulted in a reduction of the country’s maize self-sufficiency.

CHAPTER III: EMPIRICAL RESEARCH

Food insecurity remains a significant challenge in the developing world, and efforts have been made to reconcile the amount of food that is produced on a global scale with the number of people who are food insecure. According to the FAO, between 2000 and 2010, total cereal production in the world increased by 2.221 percent. In 1996, the FAO “estimated that the world was producing enough food to provide every man, woman and child with 2,700 calories a day, several hundred more than most adults are thought to need” (The Economist, 2011). Although food production increased in the last three decades of the 20th Century, the number of undernourished people also increased in that time period (Clover, 2003, p. 5). Between 1992 and 2006, “the undernourished population in the developing countries...declined by only 3 million people: from 823 million to 820 million” (FAO). According to the FAO, “about 870million people are estimated to have been undernourished (in terms of dietary energy supply) in the period 2010-12” (2012, p. 8). Godfray et al (2010) notes that “recent studies suggest that the world will need 70 to 100% more food by 2050” (p. 813). In Africa, the challenge of food insecurity remains graver than in other continents. Pinstrup-Anderson (1994) claimed that there would be an annual three percent increase in population in Africa, while food production would only increase by two percent a year, a trend which, if it continued, would result in an estimated food shortage of 250 million tonnes in the continent by 2020, according to the World Bank. Between 2000 and 2010, however, total cereal production in Africa grew by 3.582 percent, by 2.624 percent in the Americas, by 2.426 percent in Asia, 0.968 percent in Europe, and fell by 0.336 percent in Oceania (FAOSTAT). Although Africa’s total cereal production growth was the highest in the decade on a global scale, it was still significantly lower than that of the previous decade as estimated by Pinstrup-Anderson (1994). Despite this growth, Africa still has the highest proportion of

undernourished people in the world and has made the least progress in successfully confronting and reducing the prevalence of undernourishment (Clover, 2003, p. 6). Africa's population is also growing at a rapid rate, with its population of 1 billion predicted to double in the next 40 years (Smith, 2011). Africa receives the most food aid, and is no longer a key exporter of agricultural commodities but now largely depends on imports (Clover, 2003, p. 6). 70 percent of the population in Sub-Saharan Africa lives in rural areas (World Bank) and there is significant dependence on agriculture for the rural population's livelihoods.

Food availability for a nation involves the nation growing its food domestically, importing food through purchase on the international market or as food aid, or a combination of the options. The importing of food often works to supplement domestic food production when it is not sufficient to meet the needs of the population. Food self-sufficiency in a country, which implies that the demand for food is being met by domestic production, negates the need for food imports in as far as that particular food is available. As a whole, Africa's standing regarding food self-sufficiency through food crop production and importing food has changed over the years. During decolonisation, in the 1960s, Africa was largely self-sufficient and was also a net food exporter, exporting an average of 1.3 million tonnes of food per annum between 1966 and 1970 but, today, the continent is a net food importer with 25 percent of its food being imported and famine becoming a frequent occurrence (Bello, 2009, p. 68). The purchasing, and selling, of food on the international market is not based on a level playing field for all countries. The conditions that are placed on developing countries under the guise of ensuring greatest efficiency are different from those practiced by some developed countries. Weis (2007) notes that, while developing countries were coerced into greater participation in the market and reduced state support in terms of agriculture, "the USA and Europe were intensifying their subsidy-fuelled export competition and selectively increasing

protectionism with tariff and non-tariff barriers – devastating the logic’s core assumptions about the neutrality and efficiency of comparative advantage” (p. 124). In 2003, in the USA, each farmer received an average subsidy of \$20 000 per annum, an amount that was set to increase (Clover, 2003, p. 13), while tariff barriers continued to be encouraged in many developing countries. These tariff barriers have not only resulted in the deterioration of the favourability of trade and export but have also promoted the dumping of food in these countries by the USA and the EU (Clover, 2003, p. 13) which puts local producers at a disadvantage. The importation of cheap food results in greater import dependence, as local producers are discouraged by the flooding of grain from other countries and the depressed food prices (Weis, 2007, p. 101). Weis notes that “the many sub-Saharan African nations that remain bound to the traditional export/cheap grain import model have fared the worst, as recurring famines and persistently high levels of undernourishment attest” (2007, p. 126). In Burkina Faso, wheat imports increased by 84 percent between 1996 and 2000 (Bello, 2009, p. 76). Bello notes that “when their wheat production was rendered noncompetitive by these subsidized imports, farmers in French-speaking West Africa invested heavily in cotton as an alternative to food production, calculating that their costs of production made them very competitive vis-a-vis other cotton producers” (2009, p. 76) but subsidized US cotton was sold at 20 to 55 percent of the production costs on the world market, resulting in West African farmers losing \$200 million per annum between 1997 and 2001 (p. 76). Purchasing food also requires the instability of world market prices to be taken into consideration. With particular regard to agricultural commodities, it is the norm that there is instability in prices on the world market (Hazell, Jaramillo & Williamson, 1990, p. 227). Prices on the world market for agricultural commodities tend to fluctuate significantly over weeks, months and years. On June 12, 2009, the price for a tonne of maize was US\$190.74 (Food Security Portal). This amount fell to US\$149.70 per tonne of maize on June 11, 2010, rose to US\$315.15 on June

10, 2011, and fell to US\$254.32 on June 8, 2012 (Food Security Portal). Although these are fluctuations are, on average, at year-long intervals, there are also fluctuations within those intervals.

Closely linked to the availability of food through either domestic production or imports is the production of cash crops and food crops, where emphasis on food crops serves as a path towards self-sufficiency through domestic production, while an emphasis on cash crops may be based on committing more land and other resources to grow crops which can be sold for foreign currency. It is imperative to study whether there is a correlation between cash crop production and food crop production so as to address land use between the two different types of crops when relating to providing food for a country, or earning enough foreign currency to do so. Storey (1986) makes mention of a study carried out by Von Braun and Kennedy in 1985, in which 78 LDCs were examined between 1968 and 1982. In this study, it was found that “the majority of countries which managed to expand their *per capita* production of basic food staples simultaneously increased, rather than reduced, their share of land area devoted to each” (Storey, 1986, p. 47). The growth of cash crops and food crops has, in some cases, therefore, presented itself as more beneficial to some communities than opting to place a significant focus on one over the other. A study carried out by Reeves (1984) in North Kordofan in Sudan showed that farmers grew both cash crops and food crops, depending on cash crops as a crutch when food production failed due to climate changes (Maxwell & Fernando, 1989, p. 1681). The promises of great returns in foreign exchange through the growth of cash crops, however, can also have detrimental effects on the national level if that takes precedence over feeding a population. Maxwell and Fernando (1989) make note of a case where melons were exported from Ethiopia to Britain at a time

when many people in Ethiopia were starving (p. 1686), highlighting the potential competition that may exist between feeding a population and gaining foreign exchange.

There are many different farm types, varying in size, land use and access to resources. Two of these farm types, which can be further broken down into other subtypes, are commercial farms and communal farms. Large scale commercial farms are often compared with smallholder farms, and where a transfer of land takes place between the two, questions are often raised as to which farm type is more advantageous in production and efficiency when it comes to providing for a nation. Von Blanckenburg (1994) notes that “the large farm sector is often a major support for the supply of food to the nation and for hard currency earnings through export production” (p. 2). Large-scale commercial farms often find themselves at an advantage in comparison to communal farms, partially because they are often located in areas with better soils and are closer to markets (von Blanckenburg, 1994, p. 2). Table 3.1 shows the transaction advantages of small and large farms. Transaction cost advantages show which expenses can be more efficiently met, in this case, by small farms over large farms, and vice versa. These serve to highlight who, between those on small farms, in this case communal farmers, and those on large farms, in this case commercial farmers, can produce food for a nation with greater transaction cost advantages.

Table 3.1

Transaction Advantages of Small and Large Farms

	Small Farms	Large Farms
Unskilled labour supervision, motivation, etc.	X	
Local knowledge	X	
Skilled labour		X

Market knowledge		X
Technical knowledge		X
Inputs purchase		X
Finance & capital		X
Output markets		X
Product traceability and quality assurance		X
Risk management		X

Note. Reprinted from Poulton, Dorward and Kydd (2010, p. 1414)

While communal farms have a transaction advantage over large farms in terms of unskilled labour supervision and motivation and local knowledge, large-scale commercial farms have transaction advantages over communal farms in terms of skilled labour, market knowledge, technical knowledge, inputs purchase, finance and capital, output markets, product traceability and quality assurance, and risk management. Small farmers generally have greater difficulty accessing credit, markets and information regarding new markets and technologies, while large-scale commercial farmers have easier access to credit, especially when a demand arises for products that may require high investment, such as horticultural products (van den Brink et. al., 2006, p. 20). Although small farms have less transaction advantages in comparison to large farms, their size often accompanies with it greater efficiency, based on plenty of data from many places in the world, which confirms that there is an inverse relationship between the size of the farm and land utilization, proportion of land cropped, and productivity per hectare (Thomas, 2003, p. 696). Thomas (2003) also notes that this inverse relationship is also true for the proportion of crops that are food crops on the land (p. 696).

Empirical Research: Zimbabwe

Zimbabwe's food security has generally been in a state of decline particularly over the past decade, with agricultural yields falling considerably since 2000 (Richardson, 2004, p. 48). The percentage of the population below the food poverty line increased from 29 percent in 1995 to 80 percent in 2008 (Mutisi, 2009, p. 9) but has since declined. The Zimbabwe Vulnerability Assessment estimates that, between January and March 2013, there will be over 1.6 million people who will be food insecure, this figure being 60 percent more than the one million people who were food insecure at the beginning of 2012 (WFP, n.d.), and more than 12 percent of the country's population of 12 754 378 as at 2011 (World Bank). Since 1985-6, population growth has outpaced agricultural production (Chimhowu et. al., 2009, p. 35-36), and since 1995, food production has declined steadily and there has been an increase in the dependence of food imports, including food aid, so that domestic requirements can be met (Mutisi, 2009, p. 8-9). 38 percent of the population was estimated to be urbanized in 2010 (UNICEF), leaving a majority in rural areas and considerably dependent on crop production for their food and livelihoods, amongst other means of income.

Zimbabwe produces a variety of food crops, including maize, wheat, sorghum and millet. Given that maize is the staple crop of Zimbabwe, and the crop with the highest produce in the country, statistics on maize production can be assumed to be somewhat reflective of the production of food crops in the country. Figure 3.1 shows total production of cereals in Zimbabwe between 1980 and 2010, and Figure 3.3.2 shows total maize production in Zimbabwe over the same time period. Given the similarities in the changes of total cereal production and maize production, statistics on maize will be used as a representation of changes in food crop production, and also as statistics for maize crop production itself, given

that this paper examines changes in maize production, but also seeks to use these results to reflect the bigger picture regarding food crop production in Zimbabwe.

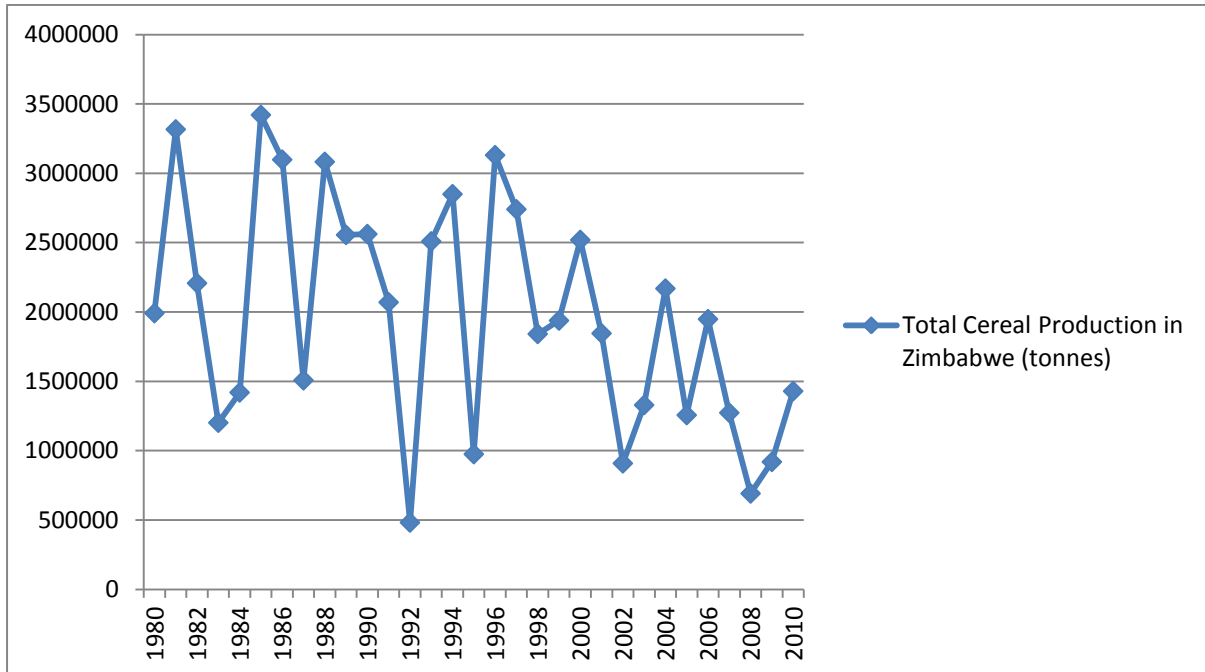


Figure 3.1. Total cereal production in Zimbabwe between 1980 and 2010. Reprinted from FAOSTAT (n.d.)

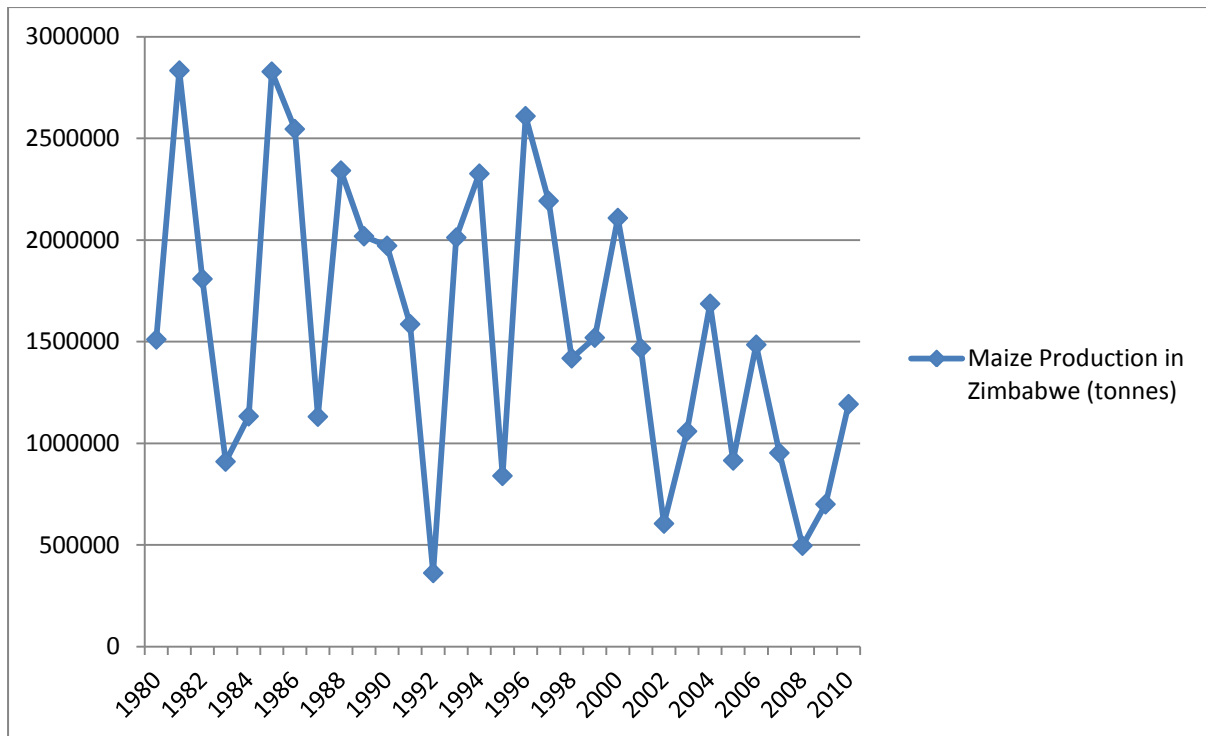


Figure 3.2. Maize Production in Zimbabwe between 1980 and 2010. Reprinted from FAOSTAT (n.d.)

Figure 3.1 shows that Zimbabwe saw a general decline in total cereal production between 1980 and 2010, reaching its peak in 1985 at 3 420 543 tonnes, and falling from 2 519 351 tonnes in 2000, the year that the FTLRP began, to 908 945 tonnes in 2002, the year that the end of the FTLRP was announced. Maize production followed a similar trend in that time period. In 1985, maize production peaked at 2 828 000 tonnes, and then fell from 2 108 110 tonnes in 2000, to 605 000 tonnes at the end of the FTLRP in 2002 (see Figure 3.2). One of the reasons for the gradual decline in maize production prior to the FTLRP was a gradual shift by large-scale commercial farmers from maize to cash crops such as tobacco and cotton (Gunjal et al., 2008, p. 9). The country requires 1 384 000 tonnes of maize for human consumption and the amount required for livestock and feed is 350 000 tonnes (Masvora, 2013, p. 1), bringing the total amount of maize required by the nation to 1 734 000 tonnes. Since the FTLRP, total maize production has been unable to rise above two million tonnes and has remained below the national requirement for maize. According to Richardson (2004),

drops in maize production in 1983, 1988, 1992, 1995 and 2002 are partially as a result of droughts in those years or preceding years. More information on how changes in rainfall have affected production can be found in Richardson (2004) and will not be discussed further in this thesis.

Zimbabwe was once seen as “the most important exporter of food and cash crops in the region” (Weiner, Moyo, Munslow & O’Keefe, 1985, p. 251). The Commercial Farmer’s Union states that, since the FTLRP took place, production in Zimbabwe has been unable to meet the country’s needs, particularly with maintaining self-sufficiency (Theron, 2010). Tawodzera, Zanamwe and Crush (2012) note that “most of the food in Zimbabwe’s urban markets is imported, rendering the urban population more susceptible to external food shocks and rising food prices” (p. 1). There has been a fall in agricultural exports, “which once accounted for nearly 40 percent of the total foreign currency earnings, [thus] explain[ing] in part the acute shortage of foreign currency earnings gripping the country since mid-2002” (Compagnon, 2011, p. 185). There is also a growing need for imports, one which can partially be blamed on the growing urban population (Jayne, Mather & Mghenyi, 2010, p. 1390). The amount of maize that is imported into the country is essential in analysing the changes in Zimbabwe’s self-sufficiency, particularly when compared with statistics on maize production and maize exports. Figure 3.3 shows the amount of maize imported to and exported from Zimbabwe between 1980 and 2010. An increase in imports coincides with a decrease in exports and, when compared to maize production, an increase in maize production coincides with an increase in maize exports. After 2000, there has been a general decline in maize production (Figure 3.2) which, although it has been fluctuating, has been unable to exceed 1.5 million tonnes, with the exception of production in 2004, and reaches lower peaks than those preceding each time there is a significant increase in maize

production. This general decline in maize production has been accompanied by an increase in maize imports, which were at their highest since 1992 in 2009, and were highest between 2000 and 2009 than the preceding two decades (Figure 3.3). The increase in maize imports coincides with a fall in maize exports, which, after exceeding 1.2 million tonnes in 1994, fell into decline, and after rising above 400 000 tonnes in 1998, declined once again, and have remained below 1000 tonnes since 2003 (Figure 3.3).

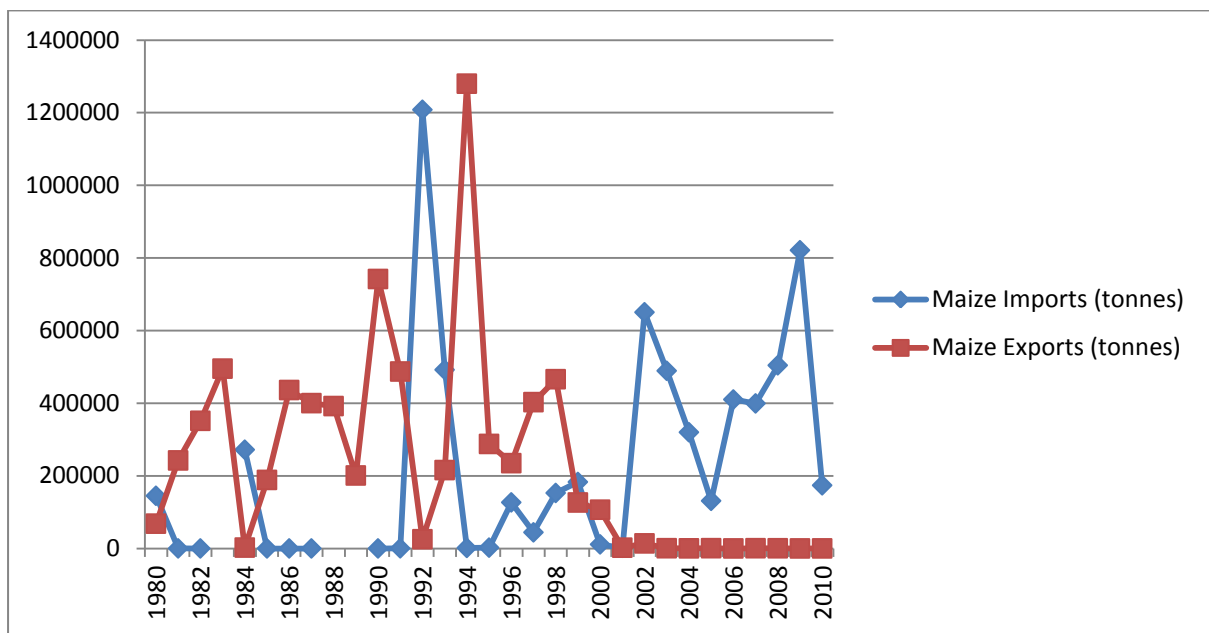


Figure 3.3. Maize Imports and Exports for Zimbabwe between 1980 and 2010. Adapted from FAOSTAT (n.d.).

Food aid also serves as a form of food imports in Zimbabwe. Due to an unavailability of data showing the total amounts of food aid delivered to Zimbabwe, the change in the number of people requiring food aid as presented below serves to show, to a certain degree, the extent to which the country has been unable to make food available for its country through domestic production and purchased imports. The WFP estimated that almost half of Zimbabwe’s population of 12.5 million people required food aid “until the end of the 2002-2003 rainy season” (Compagnon, 2011, p. 185). Following estimates were of 5.5 million people

requiring food aid until June 2004, and in early 2005, the number had fallen to 3.3 million people (Compagnon, 2011, p. 186). In August 2006, 1.4 million people in rural areas were in need of food aid until 2007 (Compagnon, 2011, p. 186).

It is important to consider whether Zimbabwe should grow its own food or not so as to be able to evaluate whether self-sufficiency is worth pursuing. Wiggins (2004) notes that, “in the mid-1990s... the cost of producing maize on large-scale commercial farms in Natural Region (NR) II of Mashonaland was just US\$69 a tonne, while for smallholders in CAs in the same region, the cost was US\$79 a tonne” (p. 29). Wiggins also notes that “adding another US\$15 a tonne for transport to the main urban markets gives a delivered cost of US\$84–94 a tonne” at a time when “international supplies were costing US\$220 a tonne or more [once] delivered to Harare in 2003” (2004, p. 29). Pinckney (1993) highlights the causes of high costs for trade on the world market as owing to “distance from international markets, poor transportation networks and continued civil strife” (p. 325). Severe shortages of foreign exchange are part of the explanation why countries place emphasis on large domestic grain stocks rather than imports, even though this is accompanied by high costs (Blackie, 1990, p. 387). Maize production deficits are also sometimes covered by stored maize from the domestic grain stock, which is costly. This storage takes place through the Grain Marketing Board (GMB), which encouraged increases in output by communal farmers due to its high purchase prices but suffered heavy deficits, has been unable to keep up with inflation (Compagnon, 2011; Richardson, 2004) and, in 2011, owed farmers US\$21 million dollars for grain deliveries, a fee which it failed to pay due to limited funding (SW Radio Africa). Today, the GMB offers unattractive prices to cereal farmers (Masvora, 2013, p. 2). Domestic production, storage and imports can also work together to ensure availability of food, as was the case during the 1992 drought, when there were no fatalities due to hunger because of the GMB strategic reserves,

commercial farmers' growth in grain production, and the well-timed import of grains to cover the remaining deficit (Compagnon, 2011, p. 186). Low maize outputs have resulted in communal farmers depending more on purchasing food rather than their own produce for subsistence and an increasing number of them moving to urban areas in search for jobs as they struggle to make ends meet by depending on the farming. In terms of trade in white maize, which is Zimbabwe's staple crop, there is little production outside of the Eastern and Southern African region, with most of the trade in Southern Africa, and so it has "little effect on supplies within the region, or on regional opportunities for trade in maize" (Blackie, 1990, p. 385). Maize shortages in Zimbabwe in 2013 have presented the importation of maize from the region as a challenging option, given that South Africa, which has enough maize to export genetically modified maize, is selling it at a more expensive price than Malawi and Zambia's GM-free maize (IRIN, 2013). Zimbabwe permits no more than a 0.01 trace of GM material in the maize that it imports, but importing maize from Zambia is not an option given the maize shortages that it is also facing, as well as the ban that it has placed on maize exports to Zimbabwe (IRIN, 2013).

In exploring whether Zimbabwe should grow its own food or purchase it, it is also beneficial to know the amount of food crops grown in comparison to cash crops. This assists in showing whether the growth of cash crops affects food crop production, or encourages food self-sufficiency by encouraging domestic crop production. It is also important in showing where emphasis should be placed in terms of growing cash or food crops, so as to make Zimbabwe food self-sufficient, or for it to be able to purchase food. Export crops have high returns, but they also have high expenses. From the late 1980s, large-scale commercial farmers placed a greater emphasis on growing export crops such as tobacco, while communal farmers paid more attention to growing food for domestic use (Elich, 2011). Given that there is a variety of

cash crops grown in Zimbabwe, tobacco, which is the cash crop with the highest yield in Zimbabwe, shall be used to reflect the changes in production amounts for cash crops in Zimbabwe. As mentioned earlier, maize shall be used to reflect the changes in production amounts for food crops in Zimbabwe. Figure 3.4 below shows the amount of unmanufactured tobacco grown in Zimbabwe between 1980 and 2010. Between 1980 and 2000, Zimbabwe saw an increase in the amount of unmanufactured tobacco produced. After reaching a peak of 260 000tonnes in 1998, and 227 726tonnes in 2000, which was the second largest amount of unmanufactured tobacco produced between 1980 and 2010, the amount of unmanufactured tobacco plummeted, arriving at its lowest amount in the 31 years of 44 451tonnes in 2006, after which it has gradually begun to increase. Figure 3.5 shows changes in maize production and in unmanufactured tobacco in Zimbabwe between 1980 and 2010. The changes in maize production over the given time period show greater fluctuation than the changes in unmanufactured tobacco production amounts. While the unmanufactured tobacco sees a general incline in amount prior to 2000, maize production is high, but with significant fluctuations. After 2000, however, both maize and unmanufactured tobacco production declines significantly. While unmanufactured tobacco production begins to increase from 2006, maize production continues to decline for another two years before it begins to increase in 2008.

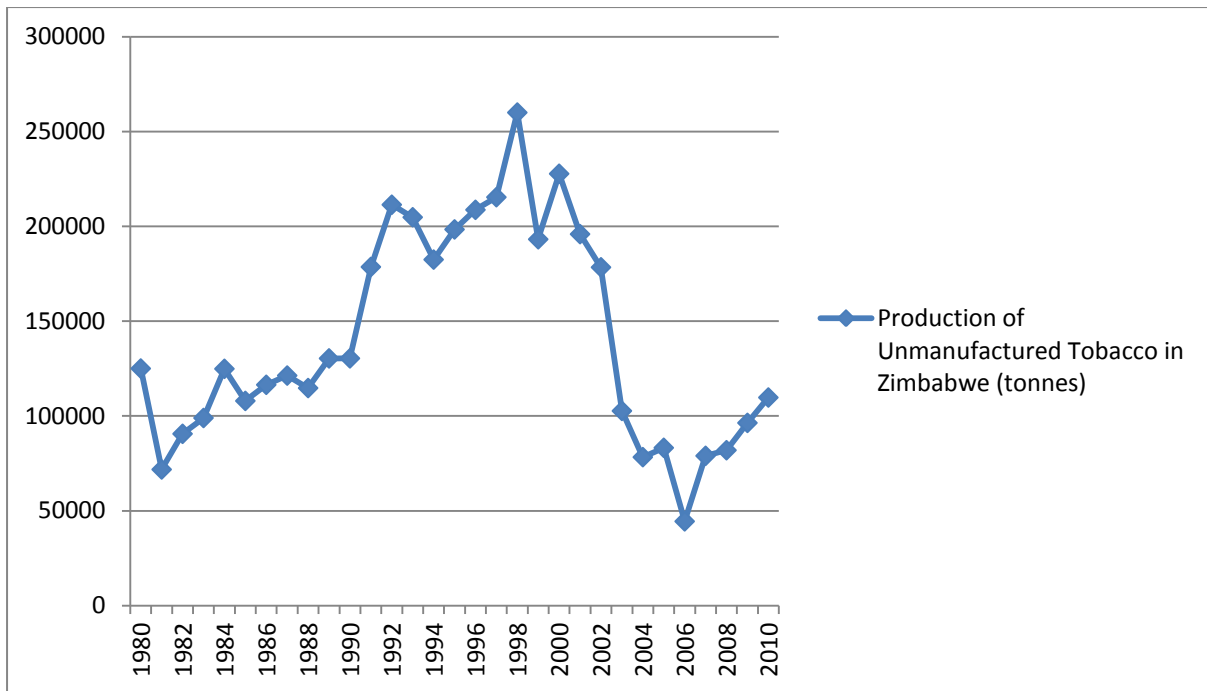


Figure 3.4. Unmanufactured Tobacco Production in Zimbabwe between 1980 and 2010. Reprinted from FAOSTAT (n.d.)

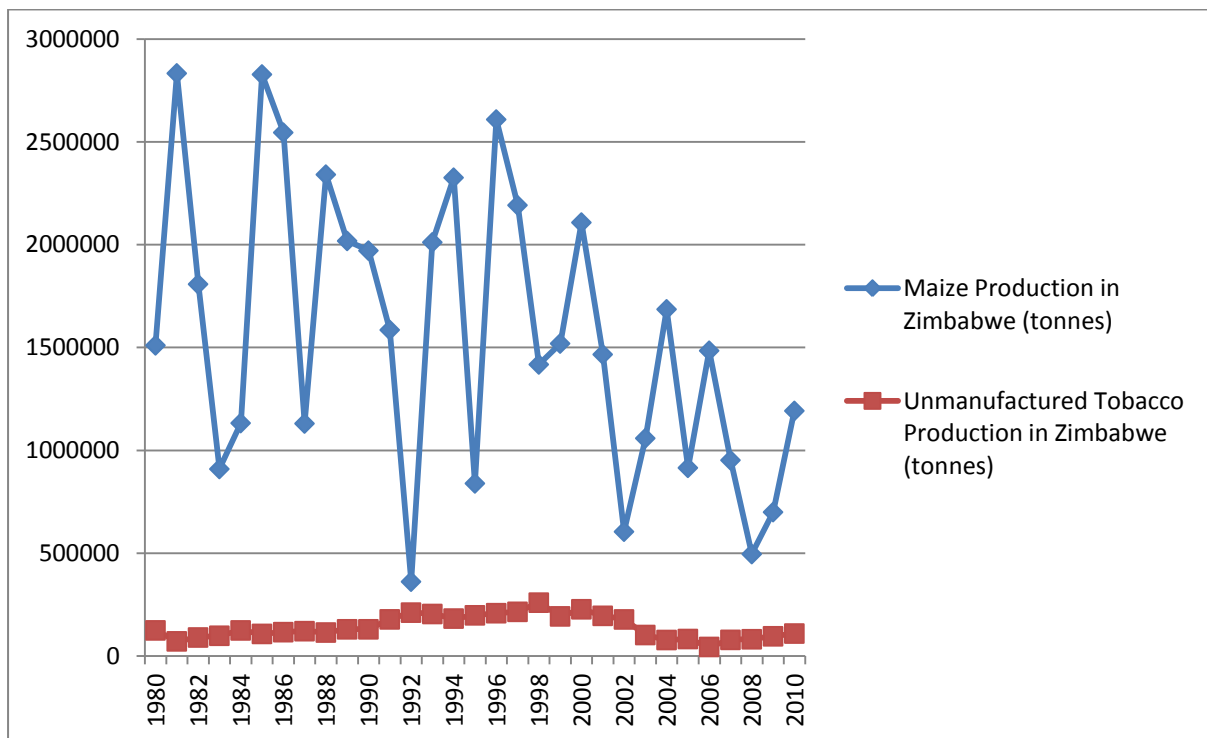


Figure 3.5. Comparison of Maize and Unmanufactured Tobacco Production in Zimbabwe between 1980 and 2010. Reprinted from FAOSTAT (n.d.).

A report by Masvora (2013) notes that, in 2013, the amount of land under tobacco increased while that under maize decreased (p. 1). The government has accused farmers of abandoning

maize production, an accusation which farmers have acknowledged, blaming the failure of the government to provide mechanisms to support maize production as the cause for increased emphasis on tobacco over maize (Masvora, 2013, p.1.).

Changes in land ownership are one of the central points in addressing changes in maize production in Zimbabwe. This is because changes in land ownership influence how the land is used in terms of the farming area that is planted by the different types of farmers, the total output and efficiency of the different types of farmers, which are also influenced by the access that these farmers have to inputs and technology and, in a country where the location of a farm type largely coincided with the type of natural region based on colonial distribution and changes in this location by land reform, changes in land ownership also partially define a farmer's access to good soil and adequate rainfall. Essentially this is where the complexities in changes in land ownership lie; a transfer of land between people "with a fundamentally different approach to land-use and with very different resource bases" (Dudley et al., 1992, p. 91).

The changes in land ownership brought about by the FTLRP meant a change in the number of land units under each farm type and the total amount of land occupied by each farm type. In the commercial farming subsector, average land units were increased by 64 percent while the share of agricultural land occupied by the sector fell by 42 percent (Pazvakavambwa & Hungwe, 2009, p. 156-7). Contrastingly, the share of agricultural land occupied by the smallholder subsector increased from 56 percent to 70 percent (Pazvakavambwa & Hungwe, 2009, p. 157). Table 3.2 shows changes in the number of farms and total area of land under each farm type between 1980 and 2004. In 1980, prior to land reform, smallholder farms were in the majority, with 700 000 farms in 14.4 million hectares while large-scale

commercial farms, which were in the minority with 6 000 farms, had ownership over majority of the land, with a total of 15.5 million hectares of land. In 1996, the number of smallholder farms had increased by 300 000 but the total area that they covered only increased by 2 million hectares. In 2004, two years after the FTLRP had ended, the number of smallholder farms had increased by another 312 866 farms, close to the increase in number of smallholder farms between 1980 and 1996, but the increase in the total area under smallholder farms increased by 7.94 million hectares, almost four times the increase between 1980 and 1996, a period prior to the FTLRP, yet with a similar increase in the number of families. The number of large-scale commercial farms fell by 1 500 farms between 1980 and 1996, losing 7.8 million hectares, and then, between 1996 and 2004, another 4.7 million hectares of farmland were lost by large-scale commercial farmers, yet the number of large-scale commercial farmers only fell by 183.

Table 3.2

Changes in Number of Farms and Farm Sizes under each Farm Type between 1980 and 2004

Farm Type	1980		1996		2004	
	Number of farms	Hectares (million)	Number of farms	Hectares (million)	Number of farms	Hectares (million)
Smallholder	700,000	14.4	1,000,000	16.4	1,312,866	24.34
Small to Medium Scale Commercial	8,000	1.4	8,000	1.4	21,000	2.83
Large Scale Commercial	6,000	15.5	4,500	7.7	4,317	3.00
Corporate Estates			960	2.04	960	2.04

Note. Reprinted from Chimhowu et al (2009, p. 43)

Table 3.3 (below) shows changes in the total area of land under each farm type between 1980 and 2010. While Table 3.2 and Table 3.3 have some similarities, Table 3.3 provides clarity to the changes in farm type during the FTLRP. While Table 3.2 shows the changes in the

number of farms and the total area of land under smallholders as a total, Table 3.3 breaks down the farm type “smallholder” to communal areas, old resettlement, and new resettlement under Model A1 so that these changes can be viewed for the different types of communal farmers. Other variations in data that exist between Table 3.2 and Table 3.3 largely have to do with the different categorizations of farm types.

Table 3.3 shows that, between 1980 and 2010, communal areas remained at 16.4 million hectares. Through the FTLRP, where new resettlement areas were created, resettlement areas under A1 took up an area of 4.1 million hectares in 2000, an area which did not change in size after ten years. There were also old resettlement areas, which existed prior to the FTLRP, and were over an area of 3.5 million hectares in 2000. Between independence and just before the FTLRP, large-scale commercial farms had only lost 3.8 hectares, but by 2010, they had lost another 8.3 hectares. Njaya and Mazuru (2010) note that, under the FTLRP, a total of 7.7 million hectares of land changed ownership (p. 177).

Table 3.3

Changes in the Area of Land under Each Farm Type between 1980 and 2010

Land Category	1980	2000	2010
	Area (million ha)	Area (million ha)	Area (million ha)
Communal Areas	16.4	16.4	16.4
Old Resettlement	0.0	3.5	3.5
New Resettlement: A1	0.0	0.0	4.1
New Resettlement: A2	0.0	0.0	3.5
Small-scale Commercial Farms	1.4	1.4	1.4
Large-scale Commercial farms	15.5	11.7	3.4*

Note. Adapted from Scoones et. al (2010, p. 4)

The changes in the total amount of land covered by the different types of farms did not occur over land that is uniform in terms of its suitability for farming. Zimbabwe is divided into five natural regions (NR), namely Natural Region I, Natural Region II, Natural Region III,

Natural Region IV and Natural Region V. The quality of this land, in terms of suitability of soil and climate type, declines with each region, with NR I being the region with the most fertile land, and suitable for “intensive diversified agriculture and livestock production” (FAO, 2006), and NR V being the region with the least fertile land and, for the most part, unsuitable for crop production (FAO, 2006). NR I covers 2 percent of the total land which is designated for agriculture, while NR II, NR III, NR IV and NR V cover 15, 18, 38 and 27 percent respectively (Mutisi, 2009). Prior to the FTLRP, the majority of large-scale commercial farms were in NR I, II and III, while most communal and resettlement lands could be found in NR IV and V, the marginal agro-ecological regions. In 1999, 35 percent of large-scale private commercial farms were in NR I and II, 22 percent in NR III, and 43 percent in NR IV and V (FAO, 2006). In that same year, only 9 percent of communal lands could be found in NR I and II, 17 percent in NR III, and 74 percent in NR IV and V, while 19 percent of resettlement areas were in NR I and II, 38 percent of NR III, and 43 percent of NR IV and V (FAO, 2006.). Table 3.4 shows the amount of land, as a percentage, that had been acquired in the different natural regions between 1980 and 1999, prior to the FTLRP. This is essential in showing the degree of access to fertile land that resettlement areas had gained from large-scale commercial farms prior to the FTLRP.

Table 3.4

Amount of Land Acquired from Natural Regions between 1980-1999

Natural Region	Land acquired in NR as a percentage of total land acquired (%)	Acquired land as a percentage of total land in NR (%)
I	4.8	24.27
II	20.9	12.63
III	31.7	15.41
IV	30.9	7.42
V	11.7	3.97
Total	100	

Note. Adapted from Murphree and Mazambani, 2002, p. 8

Table 3.4 shows that most of the land that was acquired prior to the FTLRP was from NR III and IV, with 31.7 percent of total land acquired coming from NR III, and 30.9 percent coming from NR IV, while the lowest amount of land was acquired from NR I, with 4.8 percent coming from that region. Although the least land was acquired from NR I, the largest percentage of total land acquired from a natural region was in NR I, whereby 24.27 percent of the total land in that region was acquired. NR III had the second highest percentage of total land in the natural region acquired, with 15.41 being acquired, followed by NR II, IV and V with 12.63, 7.42 and 3.97 percent respectively.

Land ownership often also determines the area of the farms, and the amount of land that is planted. Large-scale commercial farmers often produce higher crop yields than communal farmers on the land that they cultivate, yet their output per hectare is lower than that of communal farmers due to the amount of land that they leave under- or unutilized (Binswanger-Mkhize, Bourguignon & van den Brink, 2009, p. 11). Chiremba and Masters (n.d.) note that “Zimbabwe’s LSC farmers actually plough only a small fraction of potentially arable land...[and] typically run cattle on land that smallholders would have ploughed”.

Between 1981-2, the 2 626 large-scale commercial farms in Mashonaland were an average size of 1 640 hectares, but only an average of 168 hectares was under crops (Weiner et al., 1985, p. 257), and of the 5 400 large-scale commercial farms that were in existence prior to land reform in Zimbabwe, only 4 800 of them were actively farmed as of 1985 (Richardson, 2004, p. 50). In the first year of the FTLRP, 3.2 million hectares in the nation’s prime farming region was not being farmed (Weiner, 1988, p. 75). Pazvakavambwa and Hungwe (2009) note that “only 66 percent of the model A2 beneficiaries effectively had taken possession of their farms by 2003” (p. 157). As of 2007, the farmers who had been resettled

were only farming 30 to 55 percent of the arable land that they had received because of a lack of inputs and absenteeism (Gunjal et al., 2008, p. 9). Table 3.5 shows land use by farming area in Zimbabwe. This is necessary in showing the efficiency of commercial farmers and communal farmers in terms of the amount of land in their possession for farming that they use to plant crops, thus showing how changes in land ownership may have affected production. Statistics for cropping intensity are for the year 1994, which was six years prior to the FTLRP (Chiremba and Masters, n.d.).

Table 3.5

Land Use by Farming Area in Zimbabwe 1994

	CA	LSCF	RA	SSCF	Total
AVERAGES					
Area per farm (ha/hh)	18	2500	38	125	-
Of which: area planted (ha)	2	103	3	7	-
Cropping intensity (%)	11	4	8	6	-

Note. Adapted from Chiremba and Masters, n.d.

As shown above in Table 3.5, the average area of a communal farm prior to FTLRP was 18 hectares. Of the 18 hectares, only two hectares were planted, resulting in a cropping intensity of 11 percent. Large-scale commercial farmers had a lower cropping intensity than communal farmers, with only an average of 103 hectares out of the average of 2500 hectares of farmland for each household being used to plant crops, resulting in a cropping intensity of 4 percent. Resettlement areas had larger farms than communal areas, with the average farm area being 38 hectares, of which only 3 hectares of that land was planted, resulting in a cropping intensity above that of large-scale commercial farms and below that of communal farms, standing at 8 percent. It stood, therefore, that the larger farms had lower cropping intensity.

According to a special report by the FAO/WFP Crop and Food Supply Assessment Mission to Zimbabwe, in 2006/7, a six to seven year period after the FTLRP, communal farmers were utilizing the majority of their land, and had the largest amount of cultivated land as a percentage of their arable land (Gunjal et al., 2008, p. 10). Gunjal et al. (2008, p. 10) show that, in that time period, communal farms had a total of 2 491 084 hectares of arable land and cultivated 1 924 340 hectares, resulting in 77 percent of their arable land being utilized. Farms under the A1 sector had a total of 725 000 hectares of arable land but were only cultivating 49 percent of it while commercial farms, being farms under the A2 sector, small-scale commercial farms and large-scale commercial farms, utilized 55 percent of their 709 966 hectares of arable land (Gunjal et al., 2008, p. 10). Commercial farms were, therefore, utilizing a greater percentage of their arable land than the resettled A1 farmers, but less than communal farmers.

On the different amounts of land utilized and with different cropping intensities, commercial and communal farmers have made different contributions to maize production over the years. Chart 3.56 shows the total maize production by farm type in Zimbabwe between 1993 and 2007.

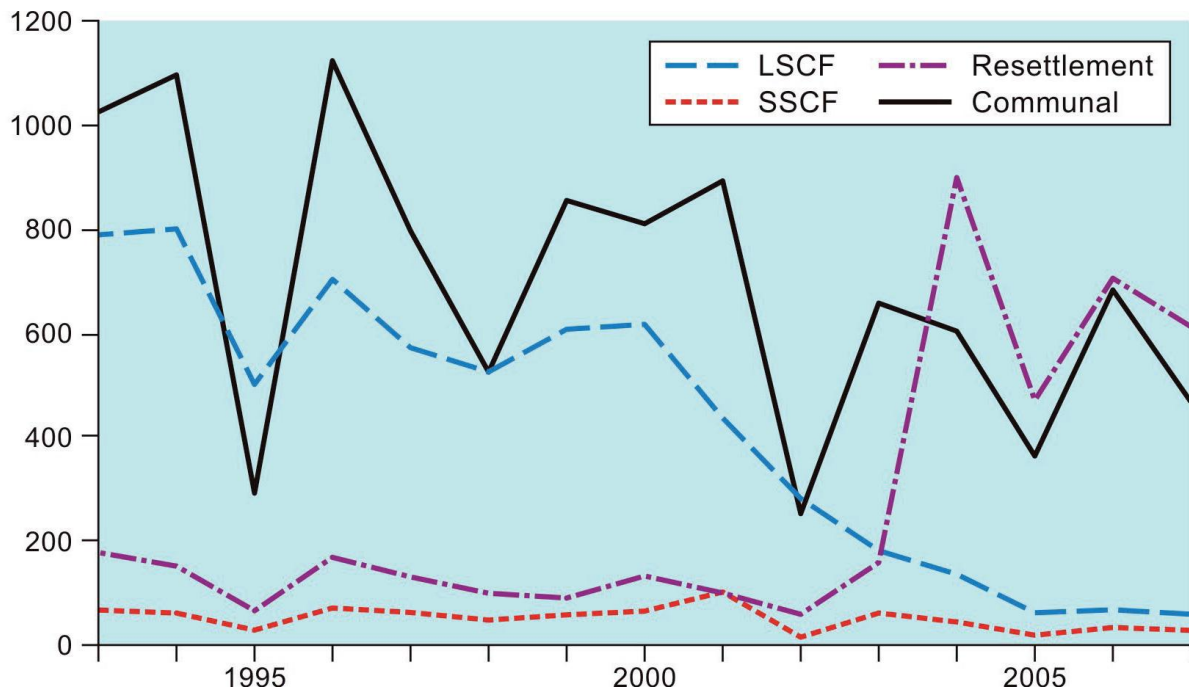


Figure 3.6. Total Maize Production in Zimbabwe by Farm Type, 1993-2007. Reprinted from Chimhowu et. al (2009, p. 37)

Figure 3.6 shows that, between 1993 and 2007, total maize production on communal farms fluctuated, with a gradual decline that plummeted below 300 000 tonnes in 2002; two years after the FTLRP had begun. Although maize production improved after that trough, it was not as high as production on the communal farms prior to the FTLRP. Total maize production by large scale commercial farms was less than that of communal farms before the FTLRP in 2000, and has remained so since the FTLRP. After the FTLRP, however, large scale commercial farms saw a significant drop in total maize production, with an average total maize production of 600 000 tonnes in 2000 falling by more than half to below 300 000 tonnes in 2003, and continued decline thereafter. Contrastingly, the average total maize production in resettlement areas saw a significant increase after the FTLRP, with total maize production below 200 000 tonnes between 2000 and 2003 rising to above 800 000 tonnes in 2004.

The FTLRP also brought with it some changes in the percentage of land under maize that was planted by each farm type, as well as their contributions to total production. In 2007/08, communal areas were responsible for the planting of 60 percent of the total maize planted area in the country, but only produced 28 percent of the total maize output for that period, while old resettlement areas were responsible for 10 percent of the total maize planted area but only produced eight percent of the total maize output (Gunjal et al., 2008, p. 15). A1 farms were responsible for planting 15 percent of the total maize planted area and A2 farmers for eight percent, and these sectors contributed 21 percent and 20 percent to total maize production, respectively (Gunjal et al., 2008, p. 15). Large-scale commercial farmers were responsible for planting only three percent of the total maize planted area, but managed to make a contribution of 20 percent of the total maize production of that period (Gunjal et al., 2008, p. 15).

Determining the efficiency in production between commercial and communal farmers is also imperative in showing how changes in land ownership and land use by farming area affect maize production with regards to yield. Figure 3.7 shows maize yields by farm type in Zimbabwe between 1993 and 2007.

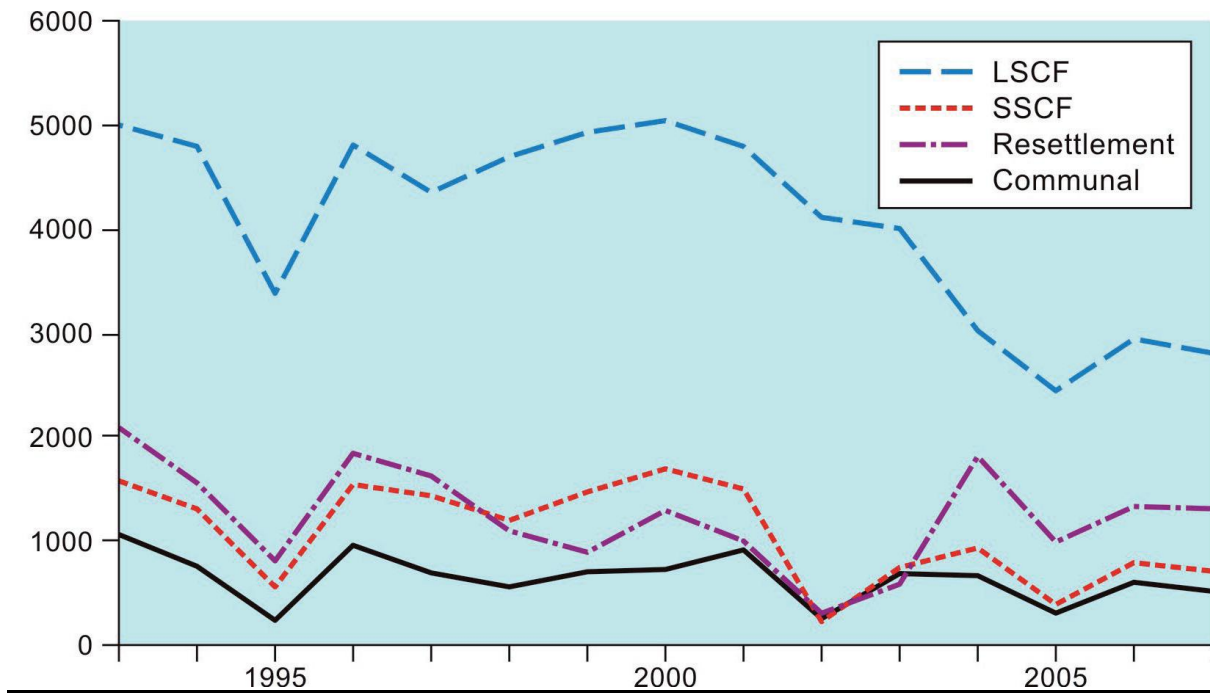


Figure 3.7. Maize Yields by Farm Type in Zimbabwe, 1993-2007. Reprinted from Chimhowu et. al (2009, p. 36)

Figure 3.7 shows that average maize yields on large scale commercial farms were highest of the four farm types shown, remaining above four tonnes per hectare for the years between 1993 and 2000, with the exception of 1995, and have been decreasing since 2000, falling below three tonnes per hectare in 2005. Communal areas had an average maize yield of 1.5 tonnes per hectare in the 1990s, but have remained below 1 tonne per hectare since 2000 (Chimhowu et.. al, 2009, p. 36). After the FTLRP in 2000, resettlement areas have maintained an average yield above that of communal farms, and above 1 tonne per hectare since 2004. The average maize yield, however, remains lower than that of commercial farms. The statistics and ranking of the farms which have the highest yield change, however, when output per hectare, which also takes into consideration any unutilized land, is considered.

For the most part, the resources that large-scale commercial farmer have access to differ from those that communal farmers have access to, as does the degree of this access. Communal farmers are largely dependent on the weather and so their production may drop due to a lack

of drought mitigation schemes when there is inadequate rainfall. As a result, “the government’s ability to provide drought relief to 2.5 million people during 1982-4 was [partially] dependent on [the] surpluses provided by large-scale commercial farmers” (Weiner et. al., 1985, p. 252). Many smallholder farmers in the country have been less inclined to adopt new technologies that could improve production due to their high cost and the high risks associated with so doing (Mutisi, 2009, p. 10). Moreover, the situation is worsened by the unavailability of these technologies on formal domestic markets (Mutisi, 2009, p. 10). Smallholder farmers also have difficulty in accessing their agricultural inputs before the beginning of the agricultural season” (Mutisi, 2009, p.11), and the cost of inputs such as fertilizer and seed maize for short-season and long-season varieties has increased (The Sunday Mail). Given that the redistribution of land under FTLRP does not give most new owners title deeds, there is insecurity of land tenure which hinders the new communal farmers from borrowing money from commercial banks to purchase inputs (Mutisi, 2009, p. 10-11). Further reading for causes of lack of access to resources by smallholder farmers can be found in Mutisi (2009). Large-scale commercial farmers have greater access to “the tools for world-class intensive farming techniques, including expensive irrigation systems, tractors and tilling equipment (Richardson, 2004, p. 47). Although they have greater access to drought mitigation schemes than do communal farmers, only 46 percent of the 4500 commercial farmers just before the FTLRP had irrigation facilities (Moyo, 2000, p. 74).

Farmers’ access to incentives for crop growth also largely influence which crops the different types of farmers grow as well as how much they are able to produce. Production in Zimbabwe is largely driven by incentives to produce certain crops and, in the past, these incentives have largely been in the form of government support. In terms of subsidies, both small and large farmers were subsidized in the 1970s and 1980s at the expense of the

economy as the GMB accrued deficits from buying maize from farmers a higher price than the selling price (Richardson, 2004). There was an interruption of these subsidies under the Economic Structural Adjustment Program (ESAP), which lasted from early 1991 to 1995 (Kanji, 1995), but subsidies continued in the late 1990s due to a failure of the ESAPs. In the mid-1980s, smaller farmers were subsidized more than larger producers, which contributed to commercial farmers moving towards a greater emphasis of cash crop production over maize production (Richardson, 2004, p. 65). Another cause of the shift towards export crops by large-scale commercial farmers had to do with the export incentives that they were provided with by the government (FAO, 2003). These were later phased out, but the devaluation of the currency continued to encourage export crop production (FAO, 2003). Unlike the phases of land reform prior to the FTLRP, the farmers who were resettled did not receive as much support from the government, although there were some incentives in the form of subsidized inputs, as well as attempts to increase producer prices for maize (Pazvakavambwa & Hungwe, 2009, p. 153-154).

While communal farmers do not have as much access to the resources that large-scale commercial farmers do, the option of agribusiness and the coming together of communal farmers to farm as a collective has presented itself as an avenue to overcome some of these challenges. Jackson and Collier note that, “by bulking up production from small farmers, traders and farmer cooperatives have been able to overcome the entry barriers of participation that are prohibitively expensive for individual farmers” (1988, p. 32). A case study in Bromley, Goromonzi, by Murisa (2010) shows that the type of associationalism that has been practiced by the farmers has been successful in that it has allowed for easier access to credit and inputs and increased the amount of land that is used.

CHAPTER IV: ANALYSIS AND DISCUSSION

The data provided in Chapter III supports da Silva (2012) in showing that, in terms of calories, there is more than enough food available on a global scale for the world. While there is more than enough food produced, however, the increase in the number of undernourished people shows that there are distributional factors which inhibit food security, and so global food availability does not equate to regional food availability. Regarding Africa, the data in Chapter III shows that food production has been unable to keep up with population growth, which would give some credit to the Neo Malthusian perspective highlighted in Chapter II. The increase in total cereal production over ten years, as shown by the FAOSTAT, is not significantly higher than the predicted annual percentage increase by Pinstrup-Anderson, which shows that food production has slowed down drastically in its growth. While claims made by Sen (1981) of the importance of food entitlement have some merit, Tweeten's perspective on food availability being a means to food accessibility (1999) is more applicable to many developing countries, given that there is great dependence on food production as a source of food and livelihood in rural areas. The high percentage of people living in rural areas in Africa strengthens this claim and, therefore, the necessity for food availability through food production to be prioritized as it may also result in food accessibility for many.

The support given to production based on comparative advantage and efficiency by the World Bank and Hill (2011) assume a perfect market where there are no distortions based on power relations which allow certain countries and regions privileges over others on the market. The subsidizing of farmers in the USA and the EU noted by Weis (2007) lend support to claims put forward by Dodaro (1991) and Weis (2007) of imperfect competition on

the market and show that the flawed reality of the market puts farmers in developing countries at a disadvantage when competing with imported subsidized produce. The discouragement of farmers from growing food crops due to imperfect competition, as is shown to have been the case in West Africa (Bello, 2009), may result in growing dependence on food imports, which may be detrimental given the fluctuating prices of food on the market as indicated by the Food Security Portal. Bello's (2009) advocacy for food self-sufficiency in food that is consumed domestically may avert the problems of this dependency. Prescriptions to food self-sufficiency are, therefore, agreeable as a preferable option for developing countries.

While domestic food production encouraging food self-sufficiency should be pursued, imports cannot be entirely done away with, and should play the role of supplementing food production when there are shortfalls. Pursuing food self-sufficiency means placing greater emphasis on food crop production, but cash crop production should not be abandoned, given its ability to draw in income in times of poor food crop production so that food can be purchased, as in the case of North Kordofan highlighted by Maxwell and Fernando (1989) in Chapter III. This gives some credit to the perspectives of economists who see cash crop production as a means of increasing incomes so that household consumption items can be purchased (Govere & Jayne, 1999) and this model can also be replicated on a national scale whereby countries can depend on cash crops so as to earn foreign currency and purchase food when domestic food crop production fails. While the competition argument receives some support from the case put forward by Maxwell and Fernando (1989) of melons being exported to Britain from Ethiopia while the local population starved, this is more of an indication of competition that exists over some of the outcomes of growing food crops and cash crops, and poor governance. Von Braun and Kennedy's opposition to the competition

argument given the ability of countries either to manage both or fail to manage either (Maxwell and Fernando, 1989) is, therefore, justified. The costly nature of cash crops means that, in their supplementation of food crops, they should be grown by those who have greater access to the resources required for this production, while those with less access to the necessary resources pay greater attention to food crops.

Based on the transaction advantages that they have over communal farms, as shown in Table 3.1 in Chapter III, large-scale commercial farms are better equipped to grow both food crops and cash crops, thus contributing to domestic crop production and exports, as is noted by economists. Although large-scale commercial farms have more resources at their disposal, the data in Chapter III, which supports the 'inverse farm-size productivity relationship' put forward by agricultural economists (van den Brink et. al, 2006), gives support to small scale farmers growing food for a nation given their efficiency which could maximize production. The claim made by Islam (1994) and Hazell (2005) of small-farm led growth contributing to the livelihoods of communal farmers is reflective of the perspective put forward by Tweeten (1999) of increases in food availability through food production serving as a means to increases in food accessibility. Food production by communal farmers, therefore, is advantageous both in its efficiency and its potential to contribute to the livelihoods of communal farmers. The argument put forward by Maxwell (2004), which highlights the need to subsidize communal farmers to deliver high quality produce consistently and in large amounts, is worth noting as this is necessary when producing food for a nation. Given that communal farmers have fewer transaction advantages over commercial farmers and are more susceptible to risk, support may be necessary in purchasing inputs. Moreover, the transaction advantages of large-scale commercial farmers means that they are in a better position to weather the expenses of growing cash crops for foreign currency, which may be used to

subsidize communal farmers through purchasing inputs, or to cover other costs incurred by the government so that more funds are available for the subsidization of farmers. Communal farmers can, therefore, be said to be better off growing food for a nation provided that they receive support to ensure high and consistent output, which can be provided directly or indirectly through foreign currency contributions earned on cash crops produced by commercial farmers.

Analysis and Discussion: Zimbabwe

The concern expressed over production and availability by the FFSSA/FANPRAN (Wiggins, 2004) is justified considering that Zimbabwe has transitioned from a major exporter of the Sub-Saharan region to growing increasingly dependent on imports and food aid as total cereal production has declined, as is shown in Figure 3.1 in Chapter III. The concern over access to food in communal areas by NGOs (Wiggins, 2004) is warranted, but given the significant dependence on agriculture by those living in communal areas for their food and livelihoods, the sentiments sounded by Tweeten (1999) on availability being a precondition to accessibility are necessary to sound in the case of food security in Zimbabwe. Rohrback (1989) is right in his claim that food availability is necessary but insufficient in addressing the food security of the country and in highlighting the need for an all-encompassing solution to food insecurity, but Zimbabwe's low domestic crop production and lack of foreign currency to purchase an adequate amount of imports, which translates to a country having difficulty in making food available with the resources it has, makes food availability a priority in addressing food security.

The decline in maize production below the required national amount, and the increase in Zimbabwe's maize imports show that the country is no longer self-sufficient in maize. The

pursuit of food self-sufficiency in Zimbabwe, which is highlighted as beneficial by Jayne and Rukuni (1993) and Wiggins (2004), is clarified by the data in Chapter III which shows the importation of food as a more expensive option than domestic production. The dependence of communal farmers with low output and most of the urban population on imports is risky given the uncertainty and instability of imports, which is highlighted in the current situation that Zimbabwe is facing regarding a maize market of regional size that is either expensive or unwilling to export food to the country. This is particularly risky given the importance of maize as the staple crop in Zimbabwe. As a result, Koester's claim that there is high potential for intra-regional trade (Blackie, 1990) is weakened by the current situation in Zimbabwe, but has some merit in suggesting that this be a back-up for drought and storage, although this would require an adequate amount of foreign currency to carry this through. Nevertheless, self-sufficiency remains a more viable option than the purchasing of food from regional or international markets.

In pursuing food self-sufficiency, it follows that there should be an increase in the growth of food crops in Zimbabwe, but cash crops also hold their importance in the country, which is highlighted in Chapter III as their contribution to earning foreign currency for the nation. The nature of the changes in the production of unmanufactured tobacco and maize, as shown in Figure 3.4 and Figure 3.2 respectively, corroborate the claim put forward in the World Bank Berg Report of 1981 that cash crop production and food crop production have a high likelihood of expanding and contracting at the same time. It must be noted, however, that this is on a national scale, and so cannot be assumed to be the case on individual farms. The increase in the amount of land under the production of unmanufactured tobacco and the decline in the amount of land under maize production as of 2013, as shown in Chapter III, would seem to support the competition argument, but the justification for these changes lie in

changes of incentives. The types of crops produced by commercial and communal farmers alike are driven by incentives, and which crop types will have the greatest benefit over the cost. The movement of commercial farmers away from food crop production in the 1980s had to do with the introduction of subsidies that were more favourable towards communal farmers over commercial farmers in maize production, and the introduction of export incentives. While communal farmers produced significant amounts of maize prior to the FTLRP, less incentives in the form of subsidies and failure to pay farmers by the GMB in 2011 shows that cash crop production is proving to be more beneficial for some farmers, with the benefits outweighing the costs. Based on these findings, cash crops cannot necessarily be seen as a threat to food crops but, rather, failure by the government to provide attractive incentives has discouraged the production of food crops. This is highly problematic, particularly when pursuing food self-sufficiency, and cash crop production over food crop production has resulted in a high dependence on imports from the region are uncertain and unstable.

For the most part, the FTLRP was a change in land ownership from many large-scale commercial farmers to new and some existing communal farmers, as well as some new and existing black commercial farmers. Table 3.2 and Table 3.3 show the rapid nature of the transfer of land during the FTLRP in comparison to the more gradual pace of changes in land ownership prior to the FTLRP. This rapid change in ownership between different types of farmers with different amounts of land, farming different proportions of types of crops being produced and having different access to resources meant that there was need for either a rapid adaptation of the resettled farmers to the previous farming patterns of commercial farmers, or a rapid reorganisation of a new system that would still ensure high maize crop production. Many challenges have, however, been faced in the attempt to see this come to fruition,

especially when it comes to the capabilities and responsibilities of communal farmers and those of commercial farmers in providing the staple crop for the nation.

Richardson's perception of communal takeover of land for farming as a "tragedy of the commons" (2004), a perspective aligned to those that Moyo (2002) refers to as a middle-class myth, is disputed by data that shows that communal farmers played a significant role in the production of maize for the nation prior to the FTLRP. Moreover, the efficiency of communal farmers in terms of the proportion of land that they use for crop farming in comparison to that used by large-scale commercial farmers (Table 3.5) opposes claims of inefficiency put forward regarding communal farmers' traditional farming practices. The possession of most of the less fertile land in the country by communal farmers before the FTLRP, and their high maize production despite this disadvantage, disputes accusations of poor farming practices by communal farmers by the Zimbabwean government in 1982. The claim made by the Whitsun Foundation and Bill Kinsey (Weiner, 1988) regarding the higher yield by commercial farmers as a premise for ownership not to be transferred to communal farmers on too large a scale does not take into account the higher output per hectare of communal farmers when the non utilization of land by commercial farmers is brought into perspective.

Criticism by Cliffe (1988) and the Zimbabwe High Commission of large-scale commercial farmers' leaving land unutilized, or using land to diversify away from crop farming has some merit in that this undermines the domestic crop production of the country, especially given that most commercial farms, especially prior to the FTLRP, were in the first three natural regions of the country. Commercial farmers have a higher maize yield than communal farmers, and so if they used all of their land for food crop farming, they would be more productive than communal farmers using all of their land. The practicality, however, of

expecting large-scale farmers to use a greater proportion of their land, largely depends on the affordability to cultivate more land. Diversifying the use of the land for activities such as safaris or tourism may be an alternative way to earn money from land that is too costly to farm.

The claim put forward by Thomas (2003) that communal farmers' efficiency will increase productivity does not necessarily resonate with the reality of the situation as it stood after the FTLRP. While there has been an increase in the amount of land under communal farmers, including those under the A1 model, maize production has fallen, and so while, ideally, giving land to the farmers who are more efficient would mean increased productivity, there are other factors which contribute to this efficiency, without which, an increase in productivity may not be guaranteed. The difference between the period of high maize production by communal farmers (not including those who had been resettled) prior to the FTLRP, and the period after the FTLRP when there was a fall in maize production and maize yield by communal farmers, despite no change in the amount of land under them can partial be owed to changes in government support, which are highlighted in Chapter III, whereby there was subsidization of farmers for a significant portion of the time period before the FTLRP, but a failure to adequately support communal farmers after the FTLRP, especially in the face of a declining economic state and higher agricultural input prices. The importance of government support to communal farmers can also be seen in that, when commercial farmers reduced the amount of maize that they were producing in the 1980s and 1990s, maize production remained high as communal farmers, subsidized by the government, were able to maintain levels of production. The ESAPs of 1991 to 1995, which meant less support for communal farmers from the government, are also a period of declining maize crop production, although they also coincide with the drought of 1992.

The state of resettled farmers must be evaluated separately from communal farmers who did not benefit from the change in ownership brought about by the FTLRP as this is where the changes in ownership took place. The low efficiency of Model A1 farmers, who are communal farmers who gained land as a result of the FTLRP, can also partially be attributed to little government support, given that less support has been given to them by the government in comparison to beneficiaries of the other phases of land reform. This translates to there being less incentive to produce maize, and can be seen in the shift towards the recent shift towards cash crops that is highlighted in Chapter III. The failure by the Grain Marketing Board to pay farmers for their produce and low guaranteed prices, highlighted in Chapter III, has discouraged maize production. It can be deduced, therefore, that the efficiency of communal farmers, including those who have been resettled, depends largely on the availability of inputs through government support and subsidization, as well as incentives for maize growth. This deduction agrees with a claim made by Weiner (1988) that communal farmers' production can be high provided that they have access to productive resources. The example of a case study by Murisa (2010) of communal farmers working as a collective in Bromley, Goromonzi, outlined in Chapter III, provides a possible solution to overcoming some of the challenges faced by individual communal farmers in accessing certain resources that may improve maize production and make it more attractive for them, but it does not solve the issue of lack of government funding to provide adequate subsidies and incentives to its farmers to encourage their production in maize. While the maize production of large-scale commercial farmers also declined with changes in government subsidization of their produce, the significant change in the total maize production of large-scale commercial farmers can be seen after the FTLRP, and is largely due to a fall in the amount of land and number of

farmers that were under this farm type prior to the FTLRP. This does not take into account the resettled farmers under the A2 model.

The lack of adequate support for communal farmers, including those under the A1 model, has contributed to the decline in maize production in favour of cash crops. The increased emphasis on cash crops itself, however, is not a threat to maize production as, in the 1980s and early 1990s, the increased emphasis on cash crop production by large scale commercial farmers did not result in a decline in maize production, but rather saw maize production remaining above the country's maize needs as communal farmers focused on maize production, subsidized by the government.

Aside from communal farmers producing less maize due to little support, their production is also significantly affected by droughts. The reliability of the productivity of communal farmers, which is brought into question by Richardson (2004) given the susceptibility of their produce to drought as a result of little or no drought mitigation schemes, is, therefore, justified given the significant drops in maize production by communal farmers during years of drought. Nevertheless, the high maize production in the country prior to the FTLRP reflects the success of a system whereby communal farmers focused on maize production, subsidized by the government, while commercial farmers paid more attention to cash crop production, which earned foreign currency, some of which was used to import inputs for food crop production or to cover other expenses, thus resulting in more funds being available for the government to use in subsidizing its farmers, or to purchase food in drought years, while producing food crops which supplemented those of communal farmers, particularly in years of drought. The value of large-scale commercial farmers in earning foreign currency can be seen in the significant drop and continued low levels of maize exports (Figure 3.3), as well as

the significant drop in the production of unmanufactured tobacco (Figure 3.4), which is a major export in the country, which coincide with a fall in the number of large-scale commercial farmers as a result of the FTLRP. The importance of commercial farmers, therefore, lies in their production of high quality cash crops for foreign currency earning to support government subsidizing of farmers, and their supplementary maize production. Communal farmers cannot be expected to make the same contribution towards cash crops as they lack the resources to be able to compete with the cash crop production of large-scale commercial farmers on a large scale. This can be seen in the decline in the production of unmanufactured tobacco after the FTLRP (see Figure 3.4), when large amounts of land were transferred from large-scale commercial farmers to communal farmers and, ten years after the start of the FTLRP, production of unmanufactured tobacco remained below pre-FTLRP levels (Figure 3.4). The slow start of the Model A2 beneficiaries who have taken over some of the large-scale commercial farming, which is highlighted in Chapter III, is also responsible for stalled production, both in cash crops and food crops. Although commercial farmers may be better in their production of cash crops for international markets, this is not to discourage communal farmers from cash crop production as the benefits outweigh the costs when maize crop production is unfavourable, resulting in maize only being produced for subsistence, but this leaves those who are not producing their own maize, particularly in urban areas, at a high risk of maize shortages, especially as the international and regional market for maize is unreliable. Given the necessity of domestic maize production and the efficiency of communal farmers, however, incentives that encourage maize production over cash crop production by communal farmers are imperative so as to prevent a concentration on cash crops which shares the responsibility for the compromise of domestic maize production. Maize production for Zimbabwe is, therefore, best under communal farmers provided that there are incentives to encourage the growth in production, but the role of commercial farmers is also important in

supplementing the production by communal farmers, and ensuring that production remains high through its cash crop production which brings in foreign currency for direct or indirect use by the government in providing incentives for communal farmers to encourage production.

Interplay of factors influencing the changes in maize-self sufficiency is clear, which creates complexity in trying to differentiate whether each of the factors is individually a hindrance to food self-sufficiency in Zimbabwe. This, however, emphasizes the importance of singling out a specific factor, in this case land use and ownership, and analysing how it affects maize self-sufficiency. Although, in affecting maize self-sufficiency, changes in land use and ownership do not act independently, the data provided can then be used to deduce whether the transfer itself of land from large scale commercial farmers to communal farmers is a hindrance to maize self-sufficiency and, on a broader scale, food self-sufficiency, thus bringing land reform as a process into question, or whether the transfer of land is not a hindrance to this goal but, rather, these changes may not be conducive to food self-sufficiency in a particular economic, social and political environment, and so timing is essential.

CHAPTER V: CONCLUSION AND RECOMMENDATIONS

Although there is enough food being produced globally for the world's population, Africa does not have an adequate amount being produced in the continent, obliging most of the countries to purchase food on the international market. The instability of prices and flawed nature of the market through imperfect competition, however, has disadvantaged these countries as well as their farmers who must compete with subsidized imports, and so focusing on domestic food crop production to ensure self-sufficiency is preferable as countries have greater control over the availability of food and its consistency. Given the large rural population of Africa that depends on agriculture for its food and livelihood, domestic crop production caters for both food availability and accessibility. While the discourse by the neoliberal West has been one that encourages open markets and free trade, it is imperative that developing countries take a stance on advocating for more equal terms of trade that do not disadvantage and discourage their farmers while the West continues to profit. Imports, however, are necessary when it comes to production shortfalls or the need to purchase locally unavailable inputs. Countries should, however, be wary of dependence on imports due to market instability which may worsen food shortages and their effects on countries. Cash crop production for foreign currency is also beneficial for food availability and domestic crop production, provided countries succeed in managing both food and cash crop production. Given the high costs of high quality cash crop production, large-scale commercial farmers are best producing cash crops for export, while the efficiency of the communal farmers must be depended on to produce food for the nation, being subsidized by the government, within reasonable means, through foreign currency from the exportation of cash crops to ensure consistent production.

Zimbabwe's FTLRP resulted in the transition of the country from a mostly food self-sufficient country and net exporter of maize to a country heavily dependent on maize imports as total cereal production declined. Regaining its status as a food self-sufficient country, especially in maize, is necessary as food crop production leads to an increase in the availability and accessibility of food for the rural population, and ensures that the country, which is currently facing difficulties in acquiring maize from a thin maize market, does not have to depend on unstable and unreliable markets for its staple food, which is particularly risky given that most of the urban population depends on maize imports for food. It follows, then, that there should be an increase in cash crop production for foreign currency, which can be used to purchase inputs that are unavailable locally, and assist in the government subsidization of communal farmers.

The efficiency of communal farmers which, in the past, has resulted in them making the highest contribution to domestic maize production, puts them in the best position to be responsible for the country's maize production, but this efficiency has been largely dependent on government subsidies and support for input purchase, which requires a well-functioning commercial sector that is well-resourced to produce high quality cash crops to earn foreign currency which can be used for the required support, or diverted to other uses so that more government funds are available for subsidies. For most of the period before the FTLRP, the complementary responsibilities between communal and large-scale commercial farmers ensured maize self-sufficiency in the country, but subsidies were mostly at the expense of the country's economy as it was using money that it did not have to subsidize the farmers. Nevertheless, maize production remained high. The FTLRP resulted in a large amount of productive and unproductive land being taken from large-scale commercial farmers and given to new and existing communal and commercial farmers who were unable to fill the void that

had been created in a timely fashion, especially given the speedy nature of this transfer of land. This can partially be owed to a lack of incentives and subsidization of the farmers by the government, which was and, continues to face economic challenges and a lack of foreign currency. It should also be noted that the FTLRP did not take place over a period of time that was void of other problems but, rather, the country was also facing economic challenges and political turmoil which also contributed to disabling farmers from maintaining production levels. This environment was not conducive to a rapid change in ownership in a sector as important as agriculture. While the transfer of land to communal farmers may ideally equate to increases in production given the efficiency of the communal farmers, the framework and conduction of the FTLRP did not take into consideration the capabilities of the government to subsidize more communal farmers without worsening the economy, and the ability and degree of resource accessibility of the new farmers, both communal and commercial, to produce at the rate and the quality of large-scale commercial farmers who had previously owned the land. With this in mind, the change in agricultural land use and ownership brought about by the FTLRP did result in the decline in maize self-sufficiency in Zimbabwe, but this was largely to do with the poor timing which coincided with poor and worsening economic decline and political turmoil and lack of resources to ensure a continuation or improvement in production by farmers than to do with more land being under communal farmers.

Land reform has shown to be a path taken by many developing countries to redress inequalities in land ownership and to improve production and the livelihoods of farmers. Zimbabwe presents itself as a case where, while the intentions in as far as increases in production and changes in land ownership may have been sound, the timing and speed of the FTLRP worsened the maize self-sufficiency of the country. The advantages of land reform in terms of increased food crop production through more land under communal farmers may

only be ensured provided that the economic and political environment in which this takes place is conducive for these changes, that there remains an incentive to engage in intensive food crop production, and there is careful planning prior to the land reform itself, and careful monitoring of the process, which was not the case in Zimbabwe.

The effects of changes in land use and ownership in Zimbabwe on maize self-sufficiency go beyond reflecting the state of the country and its land reform, but also serve to illuminate issues regarding land reform in other countries. The redressing of social imbalances in land ownership is imperative in many developing countries and has raised questions about whether land reform, which would result in the well-resourced minorities owning the majority of the land losing their land to a not-so-well-resourced majority owning the minority of the land, would affect the productivity and economy of the given country. What many would term as a “failure” in Zimbabwe’s land reform, in terms of food crop productivity and economic growth, has been used as a stark warning against land reform of that drastic nature with regards to the extent of the changes in land ownership in other countries where social imbalances in land ownership exist, particularly in the Southern African region. When the case of Zimbabwe is closely explored, however, regarding changes in land use and ownership and their effect on food self-sufficiency, it becomes evident that the changes in land use and ownership were only detrimental to food self-sufficiency because of the poor timing given the economic challenges and political turmoil that the country was also facing at that time, and a failure to execute the transfer of land in an organized fashion. An increase in land under the ownership of communal farmers should not be seen as a threat to food self-sufficiency provided that commercial farmers continue to complement their production, especially given the efficiency of communal farmers in food crop production. Rather than a fear of changing land ownership through land reform as a destabilizing factor in food crop production

discouraging countries from redressing social imbalances in land ownership and ensuring food self-sufficiency, these changes should continue to be explored within the right conditions for success.

Recommendations

Years after the FTLRP, Zimbabwe continues to face economic challenges, sanctions imposed by the USA, the EU and Australia, and political instability, resulting in the government being unable to provide support to communal farmers for their maize production and the GMB being unable to purchase maize at a favourable price. Shortages of foreign currency have also made it difficult to support farmers. The subsidization of farmers by the government is not a viable solution at this point, given that the country does not have enough funds to commit to this in such a way that could provide incentives for maize production without worsening the economic situation of the country. Zimbabwe's solution lies in depending on outside intervention in terms of funding its farmers and providing incentives for production. An example would be AgriTrade, a commercial lending company under the Zim-Agricultural Income and Employment Development Programme which is sponsored by USAID.

AgriTrade, facilitated by participating banks, loans money to agro-dealers and agribusinesses so that they may buy produce from communal farmers (International Relief & Development [IRD], 2012). This serves as an incentive for farmers to grow maize as markets are closer and, unlike selling produce to the GMB that has been struggling with paying farmers for their produce, agro-dealers and agribusinesses working with smallholder farmers will have enough money to pay them for their produce. For further information on AgriTrade, see IRD (2012). More projects such as this should be looked into, and geared towards maize production as this will not only address food availability, but also accessibility as communal farmers are likely to see an increase in incomes. This should be done alongside cash crop production by

commercial farmers, which will play a part in addressing shortages of foreign currency. This may be a step towards addressing the low maize production and food security in the country, but there is more to be done. External intervention should only be seen as a short-term goal while the country's economy recovers, as seeing this as a long-term goal may create issues of dependency on external sources and undermine the state.

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