



Livelihoods after Land Reform in Zimbabwe

Working Paper 12

Implications of the Fast Track Land Reform
Programme on Markets and Market Relationships
for Livestock, Cotton and Maize Products in
Mwenezi District of Zimbabwe

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The land reform that has unfolded in Zimbabwe since 2000 has resulted in a major reconfiguration of land use and economy. Over 7 million hectares of land has been transferred to both small-scale farm units (the A1 model) and larger scale farms (the A2 model). The land reform has had diverse consequences, and there is no single story of what happened and its implications.

The Institute of Development Studies (University of Sussex, UK), the Institute for Poverty, Land and Agrarian Studies (PLAAS, University of the Western Cape, South Africa), the African Institute for Agrarian Studies (AIAS, Harare), the Centre for Applied Social Sciences Trust (CASS Trust, Harare) and the Ruzivo Trust (Harare) came together to support a small grant competition aimed at generating new case study insights based on original and recent field research by young Zimbabwean scholars. The aim was to bring together solid, empirical evidence from recent research in the field. There were over 70 applicants, and 15 small grants were offered. The result is this Working Paper series. All papers have been reviewed and they have been lightly edited. In all cases however they remain work-in-progress.

Today policymakers are grappling with the question of ‘what next’? How can a new agrarian structure be supported, and a vibrant rural economy be developed? Yet such discussions are often taking place in a vacuum, with limited empirical data from the ground and overshadowed by misperceptions and inappropriate assumptions. We hope this series – together with the wider research work being undertaken by our organisations and partners – will help to enhance policy making through a solid evidence base.

As these papers clearly show, there have been highly varied impacts of the post-2000 land reform: on rural livelihoods, on agricultural production, on markets and the economy, on farm workers and employment, on the environment and on institutions and governance arrangements, for example. And these impacts have played out in very different ways in different places. These papers cover a range of themes and offer insights from across the country.

They add up to a complex picture, but one that offers key pointers for the way forward. They counter the excessively pessimistic picture often painted about Zimbabwe’s land reform, yet highlight important failings and future challenges. We very much hope that they are widely read and shared, with the insights made use of as Zimbabwe charts its way forward.

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Professor Sam Moyo, African Institute for Agrarian Studies, Harare

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The small grant competition was coordinated through the Livelihoods after Land Reform research programme (www.larl.org.za).

Summary

The Fast Track Land Reform Programme (FTLRP) that began in 2000 has radically restructured agricultural production and marketing in Zimbabwe. There have been significant declines in output of most agricultural commodities with important implications for markets and market relations. This paper examines these changes with a focus on livestock, cotton and maize in Mwenezi district in Southern Zimbabwe. To date there has been little or no systematic assessment of this dimension of the land reform programme. The aim is to draw lessons that can provide some basis for developing strategies for revamping the Zimbabwean economy. The paper examines the chain reactions that were set off by wider macro-economic collapse and documents the disappearance of formal markets in the cattle, maize and cotton sectors of Zimbabwe. It is clear that the high volatility and uncertainties accompanying the FTLRP has tended to obscure its indisputable value for incorporating emerging farmers into effective formal markets. The analysis also suggests that land-related assets such as ploughs, planters, scotch carts and granaries need to be augmented by infrastructural investments even at household levels, to enhance farmers' formal market participation.

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Acronyms

AGRITEX	Department of Agricultural, Technical and Extension Services
CA	Communal Areas
CGA	Cotton Ginners Association
COTTCO	Cotton Company of Zimbabwe
CSC	Cold Storage Company
FMD	Foot and Mouth Disease
FTLRP	Fast Track Land Reform Programme
GMB	Grain Marketing Board
ICA	Intensive Conservation Area
IMF	International Monetary Fund
INPCATTLE	Cattle Market Participation
INPCOTTON	Cotton Market Participation
INPMAIZE	Maize Market Participation
MRDC	Mwenezi Rural District Council
OPVs	Open Pollinated Varieties
OR	Old Resettlement
SI	Statutory Instrument
SSCA	Small Scale Commercial Areas

Introduction

Zimbabwe has experienced different types of marketing systems , ranging from state controlled around 1930s to free market systems in the 1990s (Muir-Leresche and Muchopa 2006). State interventions during the 1990s were designed to regulate and facilitate the development of markets as well as protect against unfair commodity pricing (Muir-Leresche and Muchopa 2006). Far-reaching changes in the agricultural sector from production to marketing of the products were witnessed in Zimbabwe from 1999, which is the year prior to the commencement of the fast track land reform programme (FTLRP) in 2000. Some of the structural and institutional developments in the sector since 1999 appear to have been planned but other developments and fundamental changes were made on an ad-hoc basis (Muir-Leresche and Muchopa 2006).

FAO (2009) noted that marketing initiatives on poor under-developed areas can have greater positive impact if factors such as roads, transport vehicles, storage and distribution facilities, processing technology and materials, means of communication and information are all taken into account. Some of the short-term policy innovations and market interventions, such as the reintroduction of price controls and state monopolies in the marketing of food crops, have adversely affected the domestic agricultural and food marketing system (Mano in Utete 2003). Market uncertainty has also affected agro-business assessment of future prospects for sustained profitability and the competitive advantage of alternative commodities and production systems (Utete 2003).

Under the FTLRP, large targets for land acquisition were initially set at five million hectares and were then significantly exceeded as land invasions continued (Cousins and Scoones 2009). 'Beneficiary selection' did not focus particularly on skilled, well-resourced entrepreneurial farmers, but responded to local circumstance, sometimes involving political pressure to offer poorer people land as well as the manoeuvring of elite interests (Marongwe 2004; Marongwe in Cousins and Scoones 2009).

A number of far reaching changes in the institutional architecture have resulted from the FTLRP. Among the most significant are obviously those affecting the agricultural markets for most products as well as inputs. Although technically efficient, state marketing systems which used to be dominant in Zimbabwe proved to be economically inefficient and regressive, thus having negative effects on both growth and equity (Rukuni 2006). These inefficiencies were brought about by monopoly power and pricing inefficiencies, bureaucratic procedures and the restrictions on trade between communities in different areas (Jayne et al. 2006), especially that marketing controls implicitly taxed the poorest rural people who are some 20-30 percent of potential producer prices in most years.

Zimbabwe's Fast Track Land Reform Programme was associated with a sharp decline in agricultural production, which dropped by 30 percent by 2004 (Richardson in Zikhali 2008). By mid-2008, year-on year inflation was estimated to be over a million percent, and the IMF indicated that Zimbabwe's formal sector had shrunk by over 30 percent between 1999¹ and 2007. This resulted in a drastic contraction of the economy by 15 percent due to subsequent shrinking of manufacturing and processing sectors that relied on agriculture (Zikhali 2008: 2). The International Monetary Fund (IMF) indicated that the Zimbabwean economy shrunk by 14.1 percent in 2008, with unemployment ranging between 80-85

¹ 1999 is a year prior to the launch of Zimbabwe's Fast Track Land Reform Program in 2000.

percent, with industries operating between 20 and 30 percent capacity (2009 Index of Economic Freedom)

These developments had serious consequences for livelihoods as people struggled to survive in the face of rampant market failures, hyperinflation and continued intervention efforts by the government through price controls, and exchange controls. The disappearance of basic commodities from shop shelves and other retail outlets has been a very visible manifestation of these developments which have seen the emergence of various forms of informal and illegal trading and exchange modes. Producers of commercial products such as cotton, tobacco and cattle, have equally experienced the devastating effects of the shortages, especially in the light of the denomination of local prices on the highly volatile Zimbabwean dollar. However, the extent to which these farmers have been participating in alternative exchange modes, both formal and informal, still require systematic assessment. Similarly, the specific gaps in supply, demand, and institutional intermediation generated by the fast track land reform have not been explicitly measured. The present study is an attempt to fill this gap and provide a basis for more focused studies on the role of this specific type of land reform on the whole marketing process in Zimbabwe as in other environments sharing similar characteristics.

The overall objective of the study is to analyse changes in markets and market relationships for livestock, cattle and cotton following the accelerated land reform programme in Zimbabwe. More specifically, the study aims to:

- i. Describe the existing agricultural production and marketing systems relevant to an evaluation of changes in markets and market relationships attributable to the Fast Track Land Reform Programme.
- ii. Establish changes in formally marketed products post FTLRP in Zimbabwe.
- iii. Establish the different agricultural commodity market channels that emerged post FTLRP in Zimbabwe.

This study seeks to analyse the market structure for beef production, cotton and maize. This goes further to scrutinise the emergence and restructuring of marketing systems following the accelerated land reform programme that was characterised by high human and livestock mobility. The participation of both the government and independent (private) entities in agric-marketing post fast track land reform has been analyzed to evaluate how these arrangements benefited the emerging farmers.

Study area and methodology

This section describes the area of study, data collection methods, data analysis and tools used in the study.

Mwenezi District is one of the nine administrative districts of Masvingo Province (Appendix 1). It is located at about 130km south of Masvingo town, along the Harare-Beitbridge highway. Based on dominant temperature, rainfall and altitude, Zimbabwe is divided into five agro-ecological regions. Region I lies in the Highveld, with high rainfall of above 1000mm per annum, while Region II receives 750-1000mm per annum. Following are regions III, IV and V, which receive 650-800mm, 450-650mm and less than 450mm respectively. Following the above criteria, Mwenezi District is located in agro-ecological region four, with an average rainfall of 540mm per annum and high temperatures above 25 degrees Celsius in the hot summer period. Natural region IV is a semi-extensive farming region covering

about 38 percent of Zimbabwe. Rainfall is low and periodic seasonal droughts and severe dry spells during the rainy season are common. Farming in Mwenezi district is mainly based on livestock production since crop production is risky except in certain very favourable localities, where limited drought resistant crops are grown. Mwenezi District has a total land area of 1,339,657 hectares, made up of Communal Areas (CA), Intensive Conservation Area (ICA) for wildlife, large and small scale commercial farms and old resettlement areas. Table 1 shows land distribution patterns in the districts of Masvingo Province of Zimbabwe post fast track land reform programme.

Table 1: Land Ownership Profile after Fast Track Land Reform Programme (FTLRP) in the districts of Masvingo Province

District	Before FTLR Farms	A1 Farms		A2 Farms		White Owned Farms		Indigenous owned farms		Church Owned Farms		State Owned farms	
	No.	No.	Ha	Sub Division	Ha	No.	Ha	No	Ha	No	Ha	No	Ha
Chiredzi	128	27	220851	392	12174	53	1147772	9	11523	-	-	7	325182
Gutu	123	84	139389	151	16951	6	6094	5	6330	4	3499	-	-
Masvingo	255	50	61458	127	11694	21	10024	61	49523	6	2131	11	22322
Mwenezi	127	50	432332	193	185279	10	38125	3	2520	-	-	1	14519
Bikita	16												
Chivi	-												
Zaka	-												
Totals	649	211	854030	863	226098	90	169105	78	69896	10	5630	19	362023

Source: Vol 1: Main Report; Report of land review committee. Government of Zimbabwe (2003)

Masvingo province, which has a surface area of 56566 square kilometres has a population of 1,3million (2002 Census) and is made up seven administrative districts that include Bikita, Chiredzi, Chivi, Masvingo, Mwenezi and Zaka (Utete 2003). Of the seven districts (Table 1), farms in Bikita are part of the Save Valley Conservancy and the Chiredzi River Conservancy and were thus delisted, whilst Chivi and Zaka did not have any commercial farms (Utete 2003). This actually meant that people from districts without farms available for resettlement, were absorbed in the other four districts including Mwenezi district.

The land reform programme mainly targeted poor communal dwellers with the aim of integrating them into active agriculture as a way of improving their welfare and livelihoods. The original plan embraced both arable and livestock production in which maize, cotton and livestock were expected to play a crucial role, being identified as the principal enterprises in the farming systems. Utete (2003) noted that while many parts of Masvingo, especially Mwenezi district are suitable for cattle ranching, and many farms assigned to such ranching were demarcated into plots for cropping, which he thought had a negative impact on beef production. Nevertheless, an evaluation of the land reform programme, especially in the context of possible changes in the markets and market relationships of the principal commodities, will be incomplete without examining these enterprises as they existed prior to the launching of the programme. This section is devoted to that exercise.

The research targeted small-scale (A1 Farmers) beneficiaries of the Fast Track Land Reform Programme that commenced in 2000, in Zimbabwe. As such, respondents were selected based on land ownership and farmer's willingness to participate in the research. The data was collected in July 2009 from 55 households that directly benefited from the Fast Track land Reform Programme (FTLRP) in 5 villages of the district Mwenezi. The sample was drawn from beneficiaries under the small scale scheme (A1 Model), and the specific villages included Village 1, Village 2 and Village 4 of Sarahuru Ranch, Sosonye Ranch and Quagapan Ranch. More so, two focus groups with an average of seven participants took part in the data collection process. The area's extension officer assisted in the coordination and participation of farmers in the group discussions. Individual farmers were interviewed at their homesteads after clearly stating the objective of the interview and re-affirming the need for confidentiality of farmers' details. The questionnaire interrogated both social and economic dimensions that might have an impact on farmers' performance and participation on markets. The descriptive statistics and results of the inferential analysis are presented below.

The study makes use of both primary and secondary data. The relevant primary data was collected through farm survey of selected farmers in Mwenezi district. The main survey instruments included a structured questionnaire. The dominant language in Mwenezi district is Shona, hence all enumerators were fluent in the language. Enumerators were drawn from school leavers, college students on vacation and teachers from local schools. The team was trained on data collection techniques and interpretation of the questionnaire. The questionnaire consisted of both open-ended and closed questions, in order to improve the quality of data collected.

A checklist of questions was also used to extract data from focus groups, which uniformly applied across broad populations. Two focus groups with an average of seven participants took part in the data collection process. The areas' extension officers assisted in the coordination and participation of farmers in the group discussions.

Secondary data was obtained from the Agricultural Technical and Extension Department (AGRITEX), and Grain Marketing Board (GMB), cotton marketing companies (Cottco, Cargill, Tarafern, COMTEX, and OLAM), Department of Livestock, Veterinary Services Department and known independent buyers of specific products. District AGRITEX officers were interviewed and relevant secondary data was gathered for the whole district.

Data collection covered aspects like output levels, output prices, input prices, tax levels, and regulatory framework before and after land reform, market support structures, and farmer participation in different marketing channels, market distance, market information, extension services availability and road accessibility.

Descriptive statistics have been used to explain the different variables and their possible impact on product marketing by farmers.

Changes in commodity market participation: a model

An econometric model has been used to explain the changes in commodity market participation for cotton, maize and cattle enterprises. Factors ranging from physical, institutional, farmer aspects were

incorporated into a linear regression function. The major assumption is that Zimbabwe's Fast Track land Reform Programme (FTRLP) caused wide impact on agricultural marketing structures and services.

Economic theory predicts direct relationships between a vast array of socio-economic and community variables and the willingness or otherwise of economic actors to participate in the process of exchange. It is therefore possible to fit a simple linear model of the form:

$$Y = f(x_1, x_2, \dots, x_n) \quad (1)$$

Where:

Y is the dependent variable representing some measure of market participation for the particular enterprise, while the x 's are the explanatory variables. Following convention, the model can be specified as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \mu_i \quad (2)$$

Where:

β_0 = the intercept or constant term

$\beta_1, \beta_2, \dots, \beta_n$ = slope or regression coefficient

X_1, X_2, \dots, X_n = explanatory or independent variables

μ_i = error or disturbance term.

The model was estimated to identify factors affecting the participation of new farmers in formal and informal market channels.

Socio-economic and technical variables that hinder efficiency in trading of agricultural produce by newly resettled farmers have been analysed. Table 2 presents a summary of these variables, their units of measurements, types, and hypothesized relationships with the dependent variable.

Table 2: Model variables applied in the analysis.

Variables	Unit	Type of variable	Expected Sign(+/-)
Age	Actual in years	Continuous	-
Gender	Male or Female	Categorical	-
Household Size	Actual number	Continuous	+/-
Educational Level	Attended formal school or not	Categorical	+
Marital Status	Have family or none	Categorical	+
Farm labour	Actual number	Continuous	-
Land Ownership	Actual size (ha)	Continuous	+
Land Satisfaction	Satisfied or not	categorical	+
Land fertility	Fertile or not	Categorical	+
Need Extra land	Actual Ha	Continuous	-
Market Participation	Formal or Informal	categorical	-
Market Access Support	Available or not	Categorical	-
Market distance	Far or near	Categorical	-
Marketing revenue	Exact Amount	Continuous	-
Output	Actual Number	continuous	+
Plough Ownership	Have or Do not have	Categorical	-
Scotch cart Ownership	Have or Do not have	Categorical	-
Granary Ownership	Have or Do not have	Categorical	-
Planter Ownership	Have or Do not have	categorical	-
Road Condition	Good or Bad	categorical	
Area Accessibility	Accessible or not accessible	categorical	-
Extension Availability	Available or not	categorical	+
Source of Market Information	Formal or Informal	Categorical	+
Market participation before FTLRP	Yes or No	Categorical	+
Market participation After FTLRP	Yes or No	Categorical	+

Source: Developed from survey data.

Variables in Table 2 were systematically regressed to identify their respective effects on maize, cotton and cattle participation by FTLR beneficiaries in Zimbabwe.

An overview of the study areas: household characteristics

Table 3 presents an overview of the sample, focusing on the demographic data and asset ownership patterns that were adjudged to have implications for farm household behaviour in respect to market orientation of production.

Table 3: Household Characteristics

Variable	N	Mean	Standard Deviation	Min	Max
Gender of Household head (Male=75%, female=25%)	55	-	0.440	-	-
Age of household head (yrs)	55	46.55	15.879	23	77
Marital Status (Married-67.9%, Divorced-5.4%, Single-10.7% Widowed-14, 3%)	55	-	0.678	-	-
Household Size	55	7.02	3.046	2	13
Farm Labour	55	4.53	2.071	2	10
Educational Level (No formal education=7%, Primary=35.7, Secondary=39.3, Tertiary=10.7)	55	-	0.858	-	-
Household Assets					
Arable Land (ha)	55	8.04	0.270	8	10
Land ownership satisfaction (Satisfied-1, not satisfied-0)	55	0.62	0.490	0	1
Land Fertility (Fertile-1, Not Fertile-0)	55	0.80	0.404	0	1
Scotch Cart (none-0, have-1)	55	0.84	0.373	0	1
Plough (none-0, have-1)	55	0.84	0.373	0	1
Granaries (none-0, have-1)	55	0.78	0.417	0	1
Planter (none-0, have-1)	55	0.25	0.440	0	1

Source: Survey data 2009

The age of the household head can be regarded as a variable to explain the farmers' experience in farming. Age of the household head is a crucial factor since it determines whether the household benefits from the experience of an older person or has to base its decisions on the risk-taking attitudes of younger farmers (Nkhori 2004). The average age of the sample is 46.5 years which is indication of highly active people among the FTLRP beneficiaries. Farmer participation on different exchange modes is expected to be positive among the young and the economically active people. The average household size was seven (7), with a minimum of two members and a maximum of 13 members per household. The household size has an effect on the amount of labour available for farm operations and consequently on the output and amount of marketed surplus. An average of 4 family members provided for farm labour. The educational level of the household head was also considered as a variable that would influence the

farmers' decision making and ability to understand both production and marketing trends. All the respondents indicated that educational level or prior farming knowledge was not considered during the land allocation process under the A1 scheme, but instead, it was done on a "first come first served basis". However it is important to note that the ability to read and interpret market information minimises marketing losses as it improves resource use efficiency. Higher levels of education of household head often measures the ability of a farmer to perceive advantages and efficiently utilise new technology, therefore are associated with lower inefficiency effects (Mushunje, 2005). Beneficiaries of the land reform in Mwenezi district indicated a fairly balanced distribution in educational levels with about 50 percent having either secondary or tertiary education, while the balance had primary or no formal education.

Land and asset ownership and infrastructure profile

Land ownership is a very important variable that influences farmers' output and the respective marketed surplus. The basic selection criteria thus considered access to land by the farmer both for crop production and livestock rearing. 67.3 percent of the respondents indicated that they were satisfied with the land size, while 32.1 percent showed dissatisfaction and therefore wanted more land. Although 58.2 percent of the land reform beneficiaries indicated that their pieces of land were fertile for crop production, a significant 41.8 percent viewed their land as average or infertile. This variable is an important indicator of the farmers' perception and eagerness to invest on a parcel of land especially if he/she anticipates better yields.

From the survey data (Table 3), resettled farmers have invested considerably in small assets that can enhance their livelihoods and the marketing of their crop produce. Granaries for harvest storage were very common at homesteads with 74.5 percent of the respondents owning one or two granaries. The ownership of such post-harvest structures indicate that farmers anticipate considerable yields from their production and as such expect to keep the produce for sometime before consumption or marketing of the produce. Data on the farmers' crop storage methods also reveal that 82.1 percent applied chemicals on their maize before storage. These tally well with a corresponding 82.1 percent who indicated that their stored maize would last for 9-12 months, signalling sufficiency among farmers. Though this may be valid for the 2008/9 season, due to improved yields, data from previous seasons especially 2007/8 season indicated deficit in maize output (Government of Zimbabwe 2009).

Scotch carts remain the basic transport in rural communities who are normally constrained by poor roads and poorly serviced by motorised transport. None of the interviewed farmers ever hired transport to ferry produce to the market, but instead relied on the scotch carts if ever they are to sell or buy produce their village boundaries. The critical value of scotch carts is supported by the ownership patterns where 71.4 percent of the interviewed farmers indicated that they own this asset.

Extension availability was also considered as a variable that influences farmers' participation on markets. The sampled farmers indicated that 58.9 percent received extension advice from government extension workers, with frequency of visit ranging from once a week to once two months.

Road condition is a critical factor in agricultural commodity marketing. The main method of moving cattle from producing areas to consuming areas are trekking, road transport and rail transport (Nkhori 2004), while road transport is assumed to dominate the crop produce (maize, cotton) movement in Mwenezi district. Cattle trekking is done by farmers when they take their livestock to nearby auction points and butcheries, beyond which, trucking is used by traders to take the purchased livestock for

slaughter in urban abattoirs. The absence of graded roads was an indication of poor road condition in the new resettlement areas of Mwenezi district. Only 10 (18.2 percent) of the respondents showed that they relied on gravelled roads to the market by virtue of their location to the already existent infrastructure, established before the FTLRP. The other 81.8 percent used ungraded roads to trek their animals and for their scotch carts.

Market distance is another factor that came in as result of dispersion of settlements after the FTLRP. The variable measuring the distance to the markets reflects how far cattle, maize and cotton have to be transported (transportation costs). Since transport cost increases with increasing distance, the closer the farms are, the less costly it is to transport produce to the market. Distance determines market proximity of farmers and hence can be a disincentive or incentive to producers. Related variables to distance are road condition and market accessibility. Poor road infrastructure is costly for farmers, hence are generally discouraged from using them. Similarly, households having access to good road conditions but located far away from the markets will experience high transaction costs, such as transportation, search and monitoring costs (Nkhori 2004).

Market access support defines any structures put in place by the government or private players to facilitate cotton, maize and cattle marketing by the newly resettled farmers. Edmonds (1998) encouraged developing countries to focus on solutions to the access and transport problems both in terms of mobility and proximity of supplies, services and facilities (non-transport). It is believed that increasing people mobility by any mode of transport; improve market access by bringing supplies, services and facilities closer to the people (Edmonds, 1998). It is based on this notion that market access has emerged as an important factor in the assessment of newly resettled farmers.

Market information availability varies for each commodity. Private companies are mostly involved in disseminating market information for the cotton sector through their field officers, while government agencies like the local government (council), government extension workers, and government departments distribute information on maize and cattle marketing. Moreover, market information is also transmitted from one farmer to the other through informal discussions and village meetings. The survey showed a high level of discontent with the amount of market information being accessed; where 32.7 percent showed satisfaction against 67.3 percent who showed that they were not satisfied with the amount of market information given to them.

Maize: The production and marketing system

This section presents the results of the regression analysis. Qualitative information from personal interviews is employed to explain trend and tendencies. The analyses were performed separately for the three principal enterprises of maize, cotton and cattle production in the district.

The measure of the maize market participation was the extent to which the household head sold produce in the market during the relevant period namely the season preceding the survey season. In order to establish the extent of maize market participation and the changes that have taken place between the pre- and post- fast track land reform programme, a regression analysis was performed with Maize Market Participation (INPMAIZE) as the dependent variable. The results are presented in Table 4.

Table 4: Factor variables affecting maize market participation

Variables	Coefficient (B)	t-Value	Significance
Age	-0.28	-9.161	0.000*
Marital Status	-1.07	-1.667	0.104
Farm Labour	0.190	7.812	0.000*
Employment status	0.032	0.345	0.732
Plough	0.332	2.789	0.008*
Planter	-0.020	-0.207	0.837
Land Ownership	-0.039	-0.386	0.702
Land Satisfaction	0.798	6.810	0.000*
Need for extra land	0.003	3.560	0.001*
Maize Revenue	2.166	.759	0.453
Maize storage method	-0.728	-7.136	0.000*
Maize Price setting Authority	0.55	1.126	0.268
Source of Marketing Information	-0.579	-8.427	0.000*
Market Participation Post FTLRP	-0.147	-2.254	0.031**
Market Participation Before FTLRP	-0.191	-2.525	0.016**
Market Distance	-0.075	-0.739	0.465
Market Access Support	0.332	3.448	0.001*
Model Summary	R Square = 0.933; Adjusted R Square = 0.896; Durbin-Watson = 2.173; F =25.534		

Source: Survey data 2009

*Significant at 1% level; **Significant at 5% level; ***Significant at 10% level

The regression results indicate that age of the household head, land ownership satisfaction, farm labour availability, plough ownership and maize storage method had a strong influence on the new farmers' participation on formal maize markets at 1 percent significance level (Table 4). Land fertility and satisfaction to land holding also showed high significance, as a factor affecting market participation by farmers. It is important to note the weak effect of market distance to the marketing of maize by the FTLR beneficiaries. The initial assumption was that land reform resulted in a wider dispersion of settlements away from their established markets and business centres such as Neshuro, Sarahuru and Maranda business centres. Though this dispersion is real, and most farmers indicated that maize markets were far from their homesteads, they still sacrificed to travel long distances to buy the staple products, including maize. Market access, which also goes hand in glove with source of market information by farmers are some factors that the government of Zimbabwe have to consider to boost formal marketing of maize by new famers. Most farmers indicated that they relied on informal channels to access both the information and the markets

Cereal marketing in the formal markets of Zimbabwe has for the recent past been constrained by low production and formal market irregularities. The fast track land reform coincided with frequent droughts and hyper-inflationary environment in Zimbabwe, which caused uncertainties in the agricultural sector. Mwenezi District is inherently dry, with rainfall averaging 500mm/year. As such, cattle ranching have

been the dominant commercial activity among large scale farmers, augmented by game farming. Mwenezi District post fast track land reform programme saw the subdivision of the cattle ranches into small and medium sized farms occupied by beneficiaries of the land reform programme. This saw the introduction of crop farming in these areas together with small scale cattle rearing at household levels.

The Grain Marketing Board (GMB) remains a strategic grain reserve for the country. Its main responsibility is to buy all cereal produce from farmers at viable prices and sell the cereals to millers, institutions and individual consumers at affordable prices. GMB is the sole importer and exporter of government cereal products. Since 2000, GMB has been affected by cash shortages, weak pricing structures, transport and fuel shortages.

Since 2003, Mwenezi District had its GMB depot relocated from Sarahuru business centre in the old communal area (CA) to Rutenga Business Centre in the former commercial area (now Model A1 resettlement areas) (Appendix 1). Though such a move was believed to be politically motivated, it could be justified by the location of Rutenga Business Centre at a well serviced location along the Beitbridge-Harare highway, together with a rail network that links the district to main towns like Bulawayo, Chiredzi and Beitbridge as well as direct link to Mozambique, Botswana and South Africa. Such a linkage is important to a district like Mwenezi that has always benefited from food acquired outside the district boundaries. The present location of the GMB is however too far for most residents, with most households in the newly resettled areas preferring to acquire their maize from informal sources, rather than travelling for long distances to the GMB, where they were not even sure that the maize would be available. Purchase or sell of basic commodities on Zimbabwe's informal markets was mainly through the use of foreign currency and was illegal in 2008. This was dominated by cross boarder traders who sourced their maize from South Africa and Botswana. The issue of pricing on the formal market was based on availability of the product at the time of trading; hence no single price prevailed for maize products on the informal market.

Since the on-set of FTLRP in 2000, maize trading was mainly through informal markets where producers would price the product in foreign currency irrespective of government ban on such practices. However, full dollarisation of the economy is speculated to widen the gap between the have and the have-nots as sources of forex were mainly through remittances from relatives abroad or through cross boarder trading among non workers (FAO 2009).

Due to inflation, cash trading of maize was very minimal among farmers except where such transactions were done using the South African rand. Most farmers preferred barter trading with livestock (goats, sheep, cattle, chicken, etc), clothes, household utensils, farm equipment (ploughs, scotch carts, hoes) or building materials. Such trade was meant to subvert the government's price control measures and gave the farmers platforms to bargain with buyers for better retain. The preferred barter trading system by farmers deprived the GMB of local grain supplies (Table 5).

Table 5: National maize procurement statistics for GMB

Marketing Year	Local intake/Procurement(Tonnes)	Imports(Tonnes)
2001/02	154 847	88 656
2002/03	49 418	763 594
2003/04	244 187	375 198
2004/05	186 661	75 609
2005/06	181 219	685 983
2006/07	543 725	161 235
2007/08	194 331	401 285
2008/09	35 593	417 825
2009/10 ²	6 062	3 580

Source: Grain Marketing Board (GMB). Zimbabwe.

Though Table 5 represents a trend where maize imports were greater than locally procured maize nationally, except for the 2004/05 and 2006/07 seasons, the role of informal market in augmenting government procurement efforts cannot be ignored. An interview with an extension officer on their role in advising farmers on how to market their produce revealed that minimum is being said about maize marketing by government extension agents in Mwenezi District.

We rarely talk about maize marketing with farmers, except those who do market gardening. How can you tell someone who is always begging how to market his insufficient food? We always advise them to keep their food and not to market. (Interview, Agritex Extension Worker, Mwenezi District, 22 July 2009).

There is no written policy pertaining to what the extension officer said, but his sentiments were based on the fact that Mwenezi District has always relied on food hand outs from the donor community. He also emphasised that although beneficiaries of the FTLRP in Mwenezi District seem to have produced more food than their communal counter parts in the 2008/09 season, there is no clear evidence of surplus to warrant any formal marketing of basic cereals like maize, sorghum and finger millet. Furthermore, marketing problems also emanate from the absence of buyers who can offer premium prices to the farmers. This can partly explain the local procurement deficits and huge import figures in the country (Table 5).

Productivity on per hectare basis is estimated to be high for resettled farmers (A1) than communal farmers (CA) as shown on Table 6 at provincial level.

² Figures for the 2009/10 marketing year are as at week ending Friday July 10, 2009

Table 6: Maize Production in the Districts of Masvingo Province of Zimbabwe (ton)/ha

District	LSCF ³ Yield-t/ha	SSCA ⁴ Yield-t/ha	A2 ⁵ Yield-t/ha	A1 ⁶ Yield-t/ha	OR ⁷ Yield-t/ha	CA ⁸ Yield-t/ha	District Average
Bikita	0	0.95	0	0	0.71	0.57	0.60
Chiredzi	1.0	0.73	1.46	0.74	0.50	0.45	0.64
Chivi	0	0.76	0	0	0.93	0.61	0.60
Gutu	3.78	1.32	2.62	1.06	1.32	0.70	0.70
Masvingo	2.01	0.82	1.30	0.94	0.74	0.61	0.82
Mwenezi	0	0	0	0.51	0.71	0.60	0.55
Zaka	0	0	0	2.13	2.00	0.60	0.65
Average	1.94	1.01	1.47	0.79	0.87	0.50	0.68

Source: Second Round Crop and Livestock Assessment Report-April 2009. Ministry of Agriculture, Mechanisation and Irrigation Development. Zimbabwe

According to government estimates (Table 6) productivity on per hectare basis is estimated to be high for resettled farmers at 1.79 t/ha, as compared to 0.50 t/ha from the communal areas (CA). However, this has not translated into a noticeable participation of farmers on the formal market given that both district and provincial averages (0.55t/ha and 0.68t/ha respectively) are below 1999 national average of 1.516t/ha. This is a clear indication of a negative productivity effect following FTLRP in Zimbabwe.

An emergence of small scale millers, who had the means to directly import maize from neighbouring countries, especially South Africa ensured continuous supply of maize and maize meal on the informal markets. A 50kg bag in 2008 was being sold by these small scale millers at about R350, 00, which was out of reach for many consumers. Such a price was more than four times the price of maize on the international market.

Agricultural commodity pricing has always been at the centre of most debates in developing countries. The need to maintain high productivity among farmers based on high output prices as an incentive to producers, has always contradicted the rising need for cheaper and affordable staple products. The social responsibility of governments however gives political strength, and price controls have often been used to neutralize markets, especially in developing countries. For the 2008/09 cropping season, the Zimbabwean government set maize floor price at US\$265/ton whilst private buyers pegged their price at US\$400/ton (Figure 1).

³ LSCF refers to large scale commercial farms which are not part of the Fast Track Land Reform Programme.

⁴ SSCA refers to Small Scale Commercial Areas which are not part of the Fast Track Land Reform Programme.

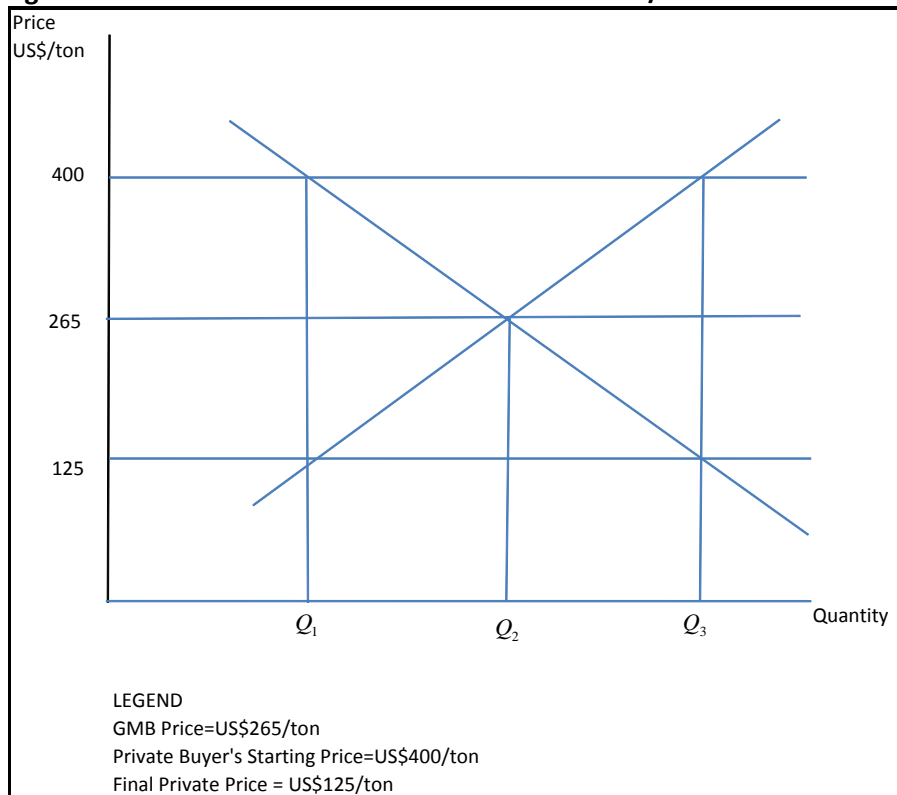
⁵ A2 Farmers are medium-large scale commercial farmers who benefited in Zimbabwe's Fast Track Land Reform Programme between 200 and 2009.

⁶ A1 Farmers are small scale farmers who benefited in Zimbabwe's Fast Track Land Reform Programme between 200 and 2009.

⁷ OR-refers to Old Resettlement areas that were formed from 1980 -1998 under the government's Land Reform and Redistribution Programme.

⁸ CA refers to Communal Areas that have never been reformed by any of Zimbabwean government's land reform programmes.

Figure 1: Maize Price Structure in Zimbabwe for 2008/09 season



Source: Survey data (July 2009)

Though viewed as low by producers, the government gazetted price (US\$265/ton) was a good stimulus for private buyers and millers to pay more so as to compete with the Government's procurement agent (GMB) (Figure 1). The initiative could be viewed as a failure due to cash shortages by the government to pay farmers, hence private buyers offered less than gazetted prices of US\$265/ton for maize (Figure 1). This negatively affected farmers who sold their produce at R20-R30/20kg bucket (US\$125-US\$188/ton). Informal market dominated the exchange process, and often among farmers and small scale unregistered millers who offered lower cash values than the gazetted prices. The government of Zimbabwe continue to be cash stripped and hence uncertainties among farmers on cash availability at the Grain Marketing Board remain a deterrent factor that affect maize supplies to the institution. The few delivered maize still lagged behind in terms of payment, thereby confirming the real challenges facing the Zimbabwean parastatal.

Zimbabwe's input markets following fast track land reform were marred by irregularities, where major crop and livestock inputs were generally in critical short supply and direct purchases were very limited as there were inadequate stocks on the open market FAO, (2009). Most input and output products were sold on informal markets at exorbitant prices beyond the reach of most farmers. However, Zimbabwean farmers also benefited from several agricultural input programmes. The effectiveness and scale of the input programmes still need to be looked into given the unsatisfactory production levels of farmers after the fast track land reform programme. Some of the input schemes included:

- The Presidential Programme, which was for targeted farmers especially the Champion farmers.
- Reserve Bank Programme

- Social Welfare Programme for vulnerable households
- SADC Agricultural Assistance Programme, supporting communal, old resettlement and small scale commercial farming.
- Contract Schemes, which are mainly found in the cotton sector.
- NGO Programmes (Red Cross, Care International, Plan International). NGOs mainly targeted vulnerable persons/households like HIV/AIDS patients and victims, the old and the poor. NGOs did not offer much help in newly resettled areas.

Smallholder farming sectors (communal areas-CA), Old Resettlement (OR), A1 and small scale commercial areas (SSCA) contributed more than 90% of the area planted to maize with communal sector contributing about 64% (GOZ 2009). Due to persistent input shortages and rampant market failures following the fast track land reform programme (FTLRP) and the hyperinflationary pressure until end of 2008, bulk of the maize inputs were from NGOs especially to cater for the old communal areas, whose people did not directly benefit from the fast track land reform programme. Open Pollinated Varieties (OPVs) also dominated the maize input market in the period 2000 – 2008. These included Red Cork, Red Cob, Hickory King and ZM 521. The traditional high breed Seed Co-op⁹ maize seed varieties (SC 401, SC 501, etc) were in short supply on the formal market. Shortages of seed on the formal market led to unscrupulous tendencies by informal market dealers to sell fake seed, packed in Seed Co-op packages. Some seeds that were planted by farmers were informally sourced from South Africa and other neighbouring countries, and as such, their viability under Zimbabwean conditions requires further scrutiny.

The fertilizer market was also not spared from the unstable economic conditions in Zimbabwe. Low production by major fertiliser companies (Windmill, Sable Chemicals, Zimbabwe Fertiliser Company) in Zimbabwe culminated into a plethora of deficits. Major Nitrogen, Phosphorous and calcium fertilizers were imported and this affected small scale agricultural producers who are cash constrained. More so, the large scale farmers as well faced challenges in accessing foreign currency from the Reserve Bank of Zimbabwe thereby impacting negatively on their productivity and total output, hence a resultant negative impact on farmer participation on formal output markets was expected.

While the maize sector for the 2008/09 season experienced shortage of buyers in the face of improved crop yields, the cotton sector experienced the opposite, with more buyers in the sector though at lower prices.

Cotton: The production and marketing system

The measure of the cotton market participation was the extent to which the household head sold produce in the market during the relevant period namely the season preceding the survey season. In order to establish the extent of cotton market participation and the changes that have taken place between the pre- and post- fast track land reform programme, a regression analysis was performed with Cotton Market Participation (INPCOTTON) as the dependent variable. The results are presented in Table 7.

⁹ Seed Coop- A seed house company that specializes in maize breeding and trading of high breed seed in Zimbabwe.

Table 7: Variable factors affecting cotton market participation.

Variable/Predictors	Coefficient	t-values	Significance
Marital Status	0.135	1.552	0.131
Employment Status	0.031	0.215	0.831
Land Fertility	-0.040	-0.383	0.704
Cotton Seed Availability			
Cotton Labour Availability	-0.055	-0.408	0.686
Market Distance	0.269	1.635	0.112
Market Access Support	0.020	0.067	0.947
Scotch Cart Ownership			
Plough Ownership	0.241	2.085	0.045**
Planted Hectares			
Output(t/ha)	0.312	1.240	0.224
Extension Availability	-0.628	-2.872	0.007*
	0.288	3.684	0.001*
	-0.268	-2.410	0.022**
	0.313	1.420	0.166
Model Summary	R Square = 0.526; Adjusted R Square = 0.266; Durbin-Watson = 2.321; F =2.046		

Source: Survey data 2009

*Significant at 1% level; **Significant at 5% level; ***Significant at 10% level

Variables of significance in cotton marketing are land area planted with cotton; plough ownership and market access support (Table 7). Market access for cotton is not significant at 5 percent level while on maize markets it is significant at 1 percent. Cotton farmers have benefited from the mobile buying system in the cotton where numerous small buying points were established across the district. Some buyers even collected cotton bales from farmers' homesteads; hence market access has not negatively affected farmers. Most input variables are not significant such as labour, extension and cotton seed availability because most these are provided for by companies through contracts. Land planted with cotton is expectedly significant as it has a direct influence on output and market participation by farmers.

The cotton sector is regulated by Statutory Instrument (S.I) 150 of 2008. The statutory instrument under Section 6(1), states that contract seed cotton shall not be purchased by any person other than the seed merchant with whom the concerned seed cotton grower entered into a contract. Section 6 (12) of the same act states that "a seed cotton merchant may purchase non-contract seed cotton from any seed cotton grower: "provided that no part of the cotton lint produced from such seed cotton shall be exportable except so much as does not exceed the ratio of cotton lint allowed to be exported in terms of section 5(3)".

The current problem bedevilling the cotton industry in Zimbabwe is compliance with S.I 150 of 2008. There are currently more than twenty companies buying seed cotton directly from farmers in Zimbabwe (Appendix 3). Five companies operated in Mwenezi district in the 2008/09 season, and these include Olam Zimbabwe, Cargill, Tarafern, Comtex and Cottco. Interviews with personnel from these companies indicated that they all have concerns with the contact of merchants in the seed cotton procurement

business. In principle, an increase in seed cotton merchants is expected to increase the competitiveness of the sector with an anticipated improvement in prices and conditions of contract schemes by the merchant. Non compliance to the law has benefited small companies who do not contract inputs and some farmers who just sell their seed cotton to the highest bidding merchant at the expense of the contracting company.

Seed cotton merchants have also had a fair share of their problems during the procurement process. Cheating by farmers is rampant in the cotton industry. Some farmers sell moist cotton to gain on weight. This could be unripe cotton or one where water was intentionally added to the cotton during the packing process, or just before the bales are sold. Packets of river sand and stones are also found in cotton bales. After weighing and paid for all the bales, some farmers remove some cotton from the bales, before collection of bales, only to be discovered on re-weighing, the next day or on date of collection, but the cotton could have been sold again to another merchant. These tendencies are meant to give extra weight to the farmer at the expense of the merchants, and as such cotton merchants' battle to balance their cotton tonnage purchased against actual tonnage stocked at their weigh houses. The use of synthetic bags to pick cotton instead of plastic bags which are supposed to be provided by cotton merchants also compromised the quality and grade of the cotton.

Side marketing was another major source of squabbles in the cotton sector. This is a breach of the Cotton Ginners Association (C.G.A) and S.I 150 of 2008 regulation by both cotton merchants and buying companies. Some Cotton merchants buy seed cotton at prices outside the C.G.A. stipulated prices. Farmers sold their contracted seed cotton to other merchants who did not support them with inputs but who offered higher prices. Whilst side marketing is also common among farmers who are not willing to pay back their contracted inputs in time or forever, some farmers were contracted by two or more companies. This route is taken by farmers so that they can compare contract conditions and sell their cotton to the highest bidder. This has created a bone of contention among merchants who felt that seed cotton procurement needs regulation to avoid "fly-by night" merchants (The Herald, 23 July 2009). It was discovered that where noncontract seed cotton is being procured from farmers, normally at higher market prices, invoices are not issued to farmers, to avoid legal battles with contracting merchants. During the 1990s, Cottco's large and successful input credit scheme made the Government of Zimbabwe not to encourage additional entry into the sector despite the underutilisation of the existing ginning capacity, hence side marketing was not an issue then (Poulton et al. 2001). It is important that Poulton *et al* (2001) noted that although input use in Zambia was largely restricted to pesticides, side-selling dogged attempts to provide inputs to producers on credit since the entry into the market of several smaller seed cotton buyers in 1997. This finding is important in the current Zimbabwean context where a proliferation of small to medium scale seed cotton merchants has been witnessed since 2000, thereby worsening the side-marketing factor.

Some companies like Cargill experienced transport shortages while payment delays were common with the Cotton Company of Zimbabwe (COTTCO). This affected them to fully compete with other buyers and be able to reach as many farmers as possible within the shortest possible time. Mobile buying of seed cotton benefited farmers but companies feel that it increasing their buying costs given the poor road conditions

Shortage of qualified extension staff rocked companies like OLAM Zimbabwe and COMPTEx. Interviews with personnel of most cotton merchants indicated that most staff had no agricultural training background, though they were performing roles that required certain expertise in agriculture. In a way,

this deprived farmers of crucial agronomic and technical advice that might enhance their market participation.

Cotton seed is rarely found in local shops, and therefore farmers rely on contract input schemes from the companies. The company input scheme has been commented as restrictive to new entrance especially resettled farmers who had no marketing profiles with lending companies. Such farmers were regarded as high risk and would not benefit from the scheme or would initially receive not more than one hectare worth of inputs. The government had no roles in moderating the company schemes to protect FTLR beneficiaries.

Cotton prices are sensitive to quality differences. Seed cotton quality differs depending on factors such as mud splashes due to raindrops, pest damage, dirty storage houses and immaturity. Seed cotton planted late December has poor quality due to immaturity by the time of harvesting. This compromises cotton grades and the respective price per kilogram (Table 8). COTTCO indicated that most farmers have their cotton commonly graded as Top C-grade due to stains and dirty on their product.

Table 8: Cotton Prices for 2008/09 Season.

Grade	Price/Kg (US\$)
A	35c
B	30c
Top C	27c (Dominant grade)
Bottom C	25c
Top D	20c
Bottom D	15c

Source: Cottco Zimbabwe 2009

Interviews with farmers have indicated dissatisfaction with cotton prices (Table 8). Some companies offered prices as high as forty US cents (US\$0.40) per kilogram. Under such circumstances, no invoices were given to farmers after purchase since this was a breach of C.G.A regulation. Though the introduction of the United States dollar was welcome among farmers in the 2008/09 cotton buying season, the farmers still indicated dissatisfaction on the prices offered by cotton seed merchants.

The influence of monetary policies in Zimbabwe also had far reaching impact on cotton production and marketing. An interview with farmers indicated their reduction in cotton production due to losses incurred the previous season (2007/08), where farmers after selling their cotton to merchants were left with lots of Zimbabwean cheques after the bearer cheques were either changed or higher denomination introduced rendering whatever the farmers had useless. As such, the farmers had no confidence in commodities that relied on formal markets like cotton. The cattle sector was equally affected by these regular changes in bank notes and upgrading of bearer cheques in circulation by the Reserve Bank of Zimbabwe.

Livestock: The production and marketing system

The measure of the cattle market participation was the extent to which the household head sold produce in the market during the relevant period namely the season preceding the survey season. In order to establish the extent of cattle market participation and the changes that have taken place between the pre- and post- fast track land reform programme, a regression analysis was performed with Cattle Market Participation (INPCATTLE) as the dependent variable. The results are presented in Table 9.

Table 9: Variable factors affecting cattle market participation

Variable/ Predictor	Coefficient	t-value	Significance
Age	0.725	3.843	0.001*
Gender	0.000	-0.048	0.962
Marital Status	-0.021	-0.170	0.866
Household Size	-0.058	-1.794	0.082***
Farm Labour	0.138	2.587	0.014**
Education Level (Head)			
Employment Status	0.220	1.883	0.069***
Scotch cart Ownership	-0.410	-1.963	0.058***
Plough Ownership			
Granary Ownership	-0.838	-2.408	0.022**
Planter Ownership	1.171	4.390	0.000*
Land Ownership	1.942	6.053	0.000*
Land Satisfaction	-0.536	-3.224	0.003*
Need for extra land	-0.454	-2.485	0.018**
Market access support	0.288	1.254	0.219
Number of cattle	-0.002	-1.575	0.125
Cattle Revenue	-0.075	-0.371	0.713
Cattle Marketing Post FTLRP	0.025	1.558	0.129
Cattle Marketing Before FTLRP	0.001	0.010	0.992
Market Distance	-0.892	-4.431	0.000*
	0.002	0.016	0.987
Model Summary	R Square = 0.802; Adjusted R Square = 0.665; Durbin-Watson =1.741; F = 5.879		

Source: Survey data 2009

*Significant at 1% level; **Significant at 5% level; ***Significant at 10% level

The livestock sector in Zimbabwe is undergoing cyclical phases as it tries to cope with both internal and external economic pressures. The fast track land reform programme, which was marred by hyperinflationary environment and food shortages from year 2000, led to emergence of new market players and disappearance of formal market channels.

The model results show high levels of significance of age, household size, farm labour and land ownership on formal cattle marketing (Table 9). Cattle marketing before FTLRP emerged as a highly significant factor among land reform beneficiary. Possible explanation could be that farmers before FTLRP could not keep large numbers of livestock due to limited grazing. As such they would regularly sell to avoid overgrazing, unlike the current scenario where grazing area is not a constraint. Marketing is occurring with among farmers which the model regards as informal trading. Again like in maize and cotton markets, market distance is highly insignificant, but farm labour is significantly required in cattle rearing and their ultimate marketing. Family labour is usually the main source of labour with few instances of hired labour.

Liberalisation in 1991 and the subsequent growth in private abattoir participation in the domestic market in direct competition with the Cold Storage Company, the successor of the Cold Storage Commission was regarded as a major development in the marketing of beef (Sibanda and Khombe 2006). The Cold Storage Company, which was set up to cater for the European Union beef market failed to meet its annual quota besides its monopolistic advantage. Notably, it failed to offer attractive prices to beef producers due to its cost structure. The drastic reduction of the commercial beef herd resulted in the shortage of beef in the domestic market and insufficient volumes of export quality beef (ibid.). Most high-class abattoirs, including the Cold Storage Company, were operating at about 20 percent of their capacity during the fast track land reform period (ibid.).

By 2003, only 5 percent of formal beef sales went through CSC and by mid-2007, the government of Zimbabwe announced price controls on beef, and the closing of private abattoirs, with the requirement that all meat be marketed through the CSC (Mavedzenge et al. 2008). Beef price controls resulted in beef shortages on the formal market, while informal market prospered at premium prices (ibid.)

Local government authorities have since emerged as the major coordinators of the cattle markets in Mwenezi District. It is apparent that the participation of council authorities in commodity marketing has sustained the operations of the council as a revenue base through levies. Cattle market regulation has always been at the centre of both public and private players in the industry. According to government regulation, no cattle slaughtering takes place without clearing from police and veterinary services department, working in conjunction with local authorities such as council, village headmen, and chiefs, relying as well on farmers' dipping records. Table 10 shows in summary the major stakeholders in cattle marketing and their respective roles.

Table 10: Major Participants/Stakeholders in the cattle industry

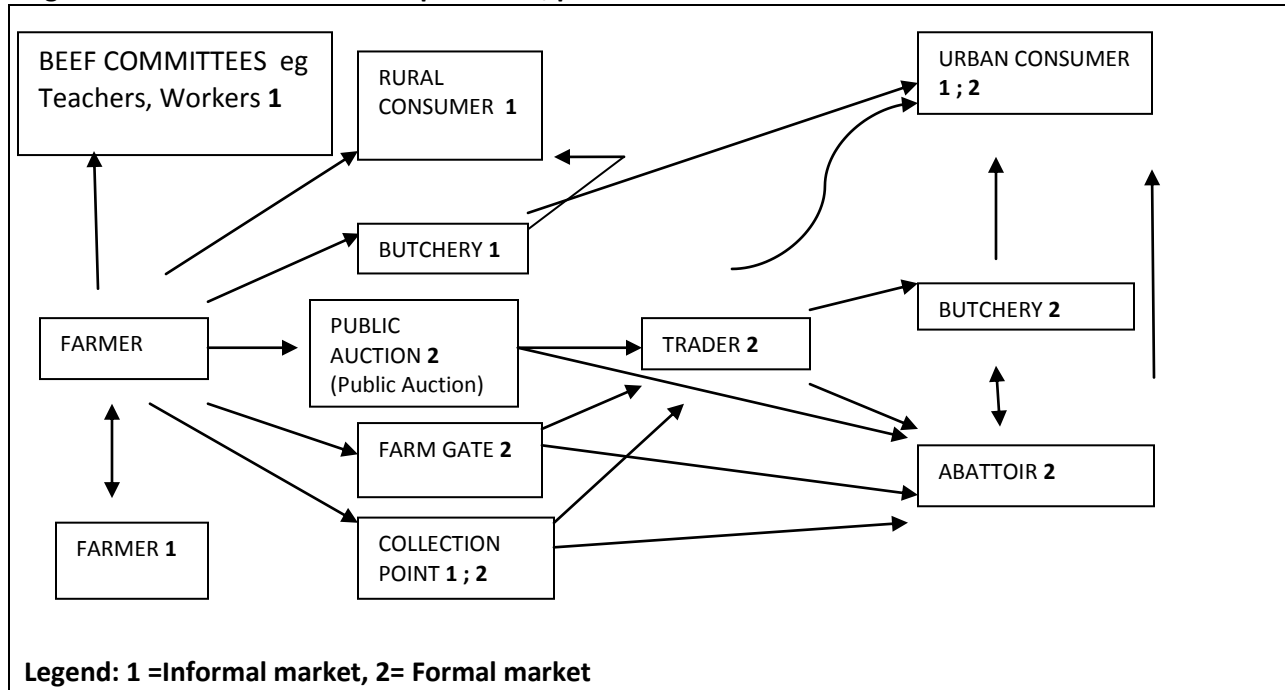
Stakeholder	Reasons For Market Participation
Resettled farmers (A1 & A2 Farmers)	Participate in public markets as buyers and sellers of heifers and steers for restocking purposes.
Private Abattoirs	Buy livestock for resale to their clients. Some abattoirs do export the meat products.
Private butcheries	Most butcheries buy cattle for slaughter for their local market
Supermarkets	Normally buy cattle products from abattoirs or slaughtered livestock directly from farmers.
Zimbabwe Republic Police (ZRP)	For verification and clearance of cattle sold at the market to avoid trading of stolen livestock.
Veterinary Department	Check the health status of all livestock at the auction. Works with the police in clearing all sold cattle.
District Council (Mwenezi)	Coordinates public auctions through scheduling dates, registering market participants, contacting market participants before auction dates, and levy collection.
Resettled Small scale farmers (A1 Farmers) and Communal farmers	Attend auctions as sellers of cattle to various buyers at the auction. Few of them buy cattle from auction, but instead prefer farmer to farmer trading for restocking purposes.

Source: Survey data 2009.

Such a multiple stakeholder participation in cattle marketing (Table 10) ensures transparency and minimises the sale of stolen cattle. However, the bureaucracy associated with such structures need to be analysed, in relation to its effects on the small farmer.

The cattle market channels in the survey area were assessed. Figure 2 sketches the intricate relationships and networks among the different market participants, institutions and outlets involved in cattle trade in the district.

Figure 2: Cattle movement from producers, processors and final consumers.



Source: Developed from survey data 2009.

Farmers are exposed to different market channels that include both formal and informal channels (Figure 2), where several factors affect the selection of each channel by the farmer. Inefficient pricing system, information asymmetry and poor infrastructure in new settlements post Zimbabwe’s fast track land reform programme promoted informal cattle sector than the formal sector (Figure 2), which was dominated by barter trading and use of foreign currency.

Public auctions remain one of the formal market channels that dominate the cattle industry. Before land reform, farmers used to sell their cattle to abattoirs and companies like Agri-auctions, CC-Sales which are now inactive in the Mwenezi area. The old arrangement saw butcheries buying their cattle products from the abattoirs. Commercial farmers as well used to contact their auctions at Bubi Cattle Pens being co-ordinated by CC sales and Agri-Auctions. These ceased to participate after the FTLRP. According to one newly resettled commercial farmer:

Some buyers don’t participate on auctions for fear of being labelled as supporters of the land reform. (Interview, New A2 Farmer, Mwenezi district, 21 July 2009)

Currently, new buyers emerged including Montana meats, Circle-Y, Bulawayo Abattoirs, Carswell Meats and small unregistered dealers. Big abattoirs have not been very active in direct cattle purchases in Mwenezi District, but have relied heavily on cattle traders and middlemen.

Most small butcheries on farms closed. At the height of economic down turn in Zimbabwe, Sources from AGRITEX and Mwenezi RDC confirmed that no effective cattle sales were contacted in newly resettled farms until 2004. Between 2000 and 2004, there were a lot of uncertainties to the future of the new farmers in their newly acquired farms. Most farmers had therefore not moved their livestock from the communal homelands until 2004, when the local government authorities (Mwenezi District Council) established buying points and started contacting public cattle auctions in the new farming areas. Though this was a positive move, cattle sales were however halted at certain intervals due outbreaks of Anthrax and Foot and Mouth Disease (FMD) which became prevalent after the Fast Track Land Reform Programme (Mavedzenge et al 2008). Uncontrolled cattle movement from old communal areas to new areas was blamed for the increase in disease outbreaks. Longer periods would lapse before auctions could resume due to short supply of cattle vaccines and veterinary personnel to curb the devastating diseases. Although, formal markets were regularly interrupted, informal and illegal cattle trading continued.

Farmer to farmer trading is dominant among small scale farmers, both newly resettled and communal farmers. The channel has been dominated by barter trading especially between 2000 and 2008, where farmers experienced erratic rains and poor harvests. Farmers used their livestock to trade for food. Some farmers have also used this channel to maintain their breeds in the area by selling their cattle to neighbours. "Beef committees" also benefited from this trading. Beef committees are groups of people (+/- 10 people), normally working class (teachers, nurses, police etc) who pull their finances together and buy cattle that they slaughter for domestic consumption. The rationale behind beef committees is to benefit from lower price of cattle by purchasing directly from the farmer using live weight, instead of buying from butcheries, which is normally expensive. Frequencies of purchase vary depending on individual groups but normally it is once per month.

Cattle rustling has been on the increase after FTLRP. This has resulted in a thriving informal market for cattle. Unofficial sources claim that cattle from Matebeleland North and Bulawayo went to Zambia and Botswana, while those from Mwenezi District were destined for Mozambique. More so, unverified information also alleges that former large scale white farmers were paying people to move their cattle to neighbouring countries soon after the onset of Fast Track land reform programme, which negatively impacted the size of the national herd.

All cattle buyers in Mwenezi District are charged a 7.5 percent levy of gross purchases, which is payable to the council. This amount is normally paid on the auction date, but where buyers convene a private auction without the knowledge of the district council, a flat fee of R150/animal is charged to the buyers. An understanding of the impact of the cattle levy to the farmers needs a thorough scrutiny. Though cattle levies are paid by the buyer at auction level, the ultimate offer price is affected by the levy. Buyers bid less for cattle so as to reduce the total levies to be paid to the council after the purchases. This directly affects the farmers' revenue by depriving him/her a potentially high bidding price if the buyers were not directly taxed.

The cattle sector in Mwenezi district is dominated by small scale buyers who operate as individuals and therefore do not exert much price changes on the sector. This varies considerably with the cotton sector where the small scale buyers are registered privately run company who are considered small in relation

to big traditional market players like Cottco and Cargill. The way to improve cattle and maize sectors is to include well funded medium scale buyers and agencies that can be viewed as a positive move towards boosting these sectors.

Conclusions

The study aimed to present empirical evidence on the impact of Zimbabwe's Fast Track Land Reform Programme (FTLRP) on maize, cotton and cattle markets and market relationships. Variables that could have directly been affected by FTLRP such as market participation, extension availability, market availability, market access support, road condition, market distance and several other socio-economic variables implicated in market access and channel choice were explored.

Zimbabwe's FTLRP was characterised by high volatility and uncertainties from which lessons can be drawn to ensure successful future land reform programmes in the country and for countries in the process of reforming their agricultural and economic sectors. Without a doubt, the FTLRP in Zimbabwe has led to far-reaching changes in markets and market relationships, and has exerted considerable influence on the levels and patterns of agricultural production, especially on commercial products like cotton and cattle.

Land variables such as ownership, fertility and satisfaction have proved that they are very significant in influencing maize, cotton and cattle marketing by farmers. Land reform is a necessary instrument towards incorporating emerging farmers into markets. But the evidence from the analysis is that land-related assets need to be augmented by infrastructural investments, even at household levels. This probably explains the significant effects for such variables as ownership of ploughs, planters, scotch carts and granaries in terms of farmers' market participation.

FTLRP beneficiaries among small-scale farmers have significantly invested in these assets, but it is clear that government and institutional support is required to boost farmers' already noticeable efforts. Such assets improve productivity and efficiency with a consequent increase in market participation by farmers.

As Groenwald (2003) has noted, successful land reform does not depend only on principles or special conditions, but depends on the execution and delivery of land reform policies, where people and institutions have to formulate policies, devise means, procedures and administrative bodies to perform the agreed tasks. In as much as land reform is aimed at increasing productivity and people's welfare, this goal must not be achieved in isolation to major variables like markets and economic performance of the country. Much of the world-wide criticism of the Zimbabwean FTLRP has been based on such convictions.

The Zimbabwean market following FTLRP witnessed the formal market trailing behind the thriving informal market. Market participation by farmers required extra effort and a certain level of market intelligence and awareness. As expected, educational level and age were shown to play a major role in determining farmers' market participation. Training FTLRP beneficiaries through increasing extension visits can be a great step towards integrating small scale farmers in the mainstream economy.

References

- Cousins, B. and Scoones, I. (2009). 'Contested paradigms of 'viability' in redistributive land reform: perspectives from southern Africa'. *Working paper for Livelihoods after Land Reform Project*.
- FAO (2009). *FAO Zimbabwe Newsletter*, February-March 2009. Harare, Zimbabwe.
- Groenwald, J.A. (2003). 'Conditions for Successful land Reform in Africa'. Paper presented at Pre-IAAE Conference on African Agricultural Economics, Bloemfontein, South Africa.
- Jayne, T.S., Chisvo, M., Rukuni, M. and Masanganise, P. (2006). 'Zimbabwe's food insecurity paradox: hunger amid potential'. In M. Rukuni, P. Tawonezvi and C. Eicher, (eds). *Zimbabwe's Agricultural Revolution Revisited*. University of Zimbabwe Publications.
- Marongwe, N. (2004). 'Redistributive land reform and poverty reduction in Zimbabwe'. *Working paper for Livelihoods after Land Reform Project*. Available online: www.larl.org.za/zimbabwe
- Mavedzenge, B.Z., Mahanehene, J., Murimbarimba, F., Scoones, I. and Wolmer, W. (2008). 'The dynamics of real markets. Cattle in southern Zimbabwe following land reform'. *Development Change*, 39(4): 611-639. Oxford: Blackwell Publishing.
- Government of Zimbabwe (2009). *Second Round Crop and Livestock Assessment report*. Ministry of Agriculture, Mechanisation and Irrigation Department.
- Muir-Leresche, K. and Muchopa, C. (2006). 'Agricultural marketing'. In M. Rukuni, P. Tawonezvi and C. Eicher, (eds). *Zimbabwe's Agricultural Revolution Revisited*. University of Zimbabwe Publications.
- Mushunje, A. (2005). 'Farm Efficiency and Land Reform in Zimbabwe'. PHD Thesis. University of Fort Hare. RSA .
- Nkhoru, P.A. (2004). 'The impact of transaction costs on the choice of cattle markets in Mahalapye district, Botswana'. MSc Thesis. University of Pretoria. RSA
- Poulton, C. and Hanyani-Mlambo, B. (2008). *Comparative Analysis Of Organization And Performance Of African Cotton Sectors. The Cotton Sector of Zimbabwe*. Prepared for the World Bank. UK
- Poulton, C., Gibbon, P., Hanyani-Mlambo, B., Kydd, J. , Nylandsted Larsen, M. ,Maro, W., Osorio, A., Tschirley, D. and Zulu, B. (2001). *Competition and Coordination in Liberalized African Cotton Market Systems*. DFID, UK.
- Rukuni, M. (2006). 'Revisiting Zimbabwe's agricultural revolution.' In M. Rukuni, P. Tawonezvi and C. Eicher, (eds). *Zimbabwe's Agricultural Revolution Revisited*. University of Zimbabwe Publications.
- Sibanda, S. and Khombe, C.T. (2006). 'Livestock research and development'. In M. Rukuni, P. Tawonezvi and C. Eicher, (eds). *Zimbabwe's Agricultural Revolution Revisited*. University of Zimbabwe Publications.
- The Herald, (23 July 2009). 'Bring order, regulate marketing' Feature. Zimpapers, Zimbabwe

Utete, C.M.B. (2003). *Volume 1: Main Report: Report of the Presidential Land Review Committee*. Harare, Zimbabwe: Government Printers.

Utete, C.M.B (2003). *Volume 2: Special Studies: Report of The Presidential Land Review Committee*. Zimbabwe: Government Printers

Zikhali P (2008). *Fast Track Land Reform and Agricultural Productivity in Zimbabwe*. Discussion Paper Series. EfD DP 08-30. Environment for Development (EfD). Sweden

2009 Index of Economic Freedom. <http://www.heritage.org/index/Country/Zimbabwe>

Appendix 2: Cattle public auction market and statistics for Mwenezi District for 2008

	Auction Points	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
New Resettlement Areas (Post fast Track Areas)	Chamakudo	0	150	213	250	206	270	381	114	290	287	541	308	3010
	Chovelele	0	270	167	333	478	0	255	201	144	460	616	523	3447
	Chizenge	0	0	0	152	200	269	247	216	250	315	443	561	2653
	Mananga	0	218	396	98	0	244	289	116	261	267	350	693	2932
	Welkom	0	161	0	300	216	0	107	246	0	251	361	469	2111
	Chingwizi	0	300	0	114	200	0	136	160	222	465	728	386	2711
	Stelmaco	0	243	416	213	0	0	239	111	210	444	587	401	2864
	Mucheni	0	197	127	304	0	234	284	126	197	366	405	819	3059
	Muzhanjire	0	113	289	166	259	0	278	323	0	248	293	427	2396
	Total	0	1652	1608	1930	1559	1017	2216	1613	1574	3103	4324	4587	25183
Average	0	184	179	214	173	113	246	179	175	345	480	510	2798	
Old Communal Areas Combined Marketing Figures	Maranda	0	215	188	200	257	288	315	173	188	516	0	956	3296
	Chemvana	0	489	256	280	0	267	140	154	264	311	613	752	3526
	Chitemere	0	0	250	293	197	0	160	211	257	198	356	280	2202
	Neshuro	0	173	0	278	167	153	127	96	226	0	186	439	1845
	Total	0	877	694	1051	621	708	742	634	935	1025	1155	2427	10869
	Average	0	219	174	263	155	177	186	159	234	256	289	607	2717
	Total	0	2529	2302	2981	2180	1725	2958	2247	2509	4128	5479	7014	36052
Average	0	201	176	239	164	145	216	169	204	301	385	558	2758	

Source: Compiled from Mwenezi district council auction records for 2008

Appendix 3: Cotton buying and Ginning companies in Zimbabwe (1994-2007)

Company Name	Ownership/Capital	Operation Period	Own Ginneries	Comments
Cottco	Zimbabwe	1994/95	Nine	Ongoing
Cotpro	Zimbabwe/France	1994/95 – 1999/00	Transferred to Cottco	Ran into liquidity problems after heavy investments in a ginnery
Cargill	US	1995/96	Three	Ongoing
Tarafern /Ramsdale	Zimbabwe/UK (Plexus)	1998/99 -	One	Ongoing
Chollima/Mothercare	Zimbabwe	1999/00-2004/05	No	Chollina was an association of indigenous farmers. Always small; seed cotton purchases sporadic
Farmers' World	US	2000/01 – 2002/03	No	Core business was input supply; ceased cotton business after investment in a fertiliser manufacturing plant.
FSI Agricom	Zimbabwe	2001/02	One	Company placed under reconstruction in 2003/04 largely as a result of overtrading; subsequently subject of a management buyout; now operating at lower level
Dynamic Cotton (New Cabb)	Tanzania	2001/02	One	Ongoing
IDAI Modzone	Iran	2002/03	No	Textile company; foray into seed cotton production and ginning shortlived
Bartco	Zimbabwe	2002/03 – 2003/04	No	No longer operational
Comtex	Zimbabwe	2002/03 -	No	Formerly Blair Pvt Ltd
Grafax	India	2002/03 -	Two	Ongoing
Alliance Ginneries	Kenya	2002/03	One	Ongoing
Insing Investments	India	2003/04	Two	Ongoing
Parrogate	India	2004/05	One	Ongoing
Olam Zimbabwe	Singapore	2005/06	One	Ongoing
Cynthesis	Zimbabwe	2005/06 -	No	Company owned by top government officials
ZESA Enterprises	Zimbabwe	2005/06 -	No	Owned by electricity parastatal
Cottrade	Zimbabwe	1998/99 -	No	Export agents (brokers) only until 2003/04 when halted operations due to exchange rate appreciation; re-entered in 2005/06 as company supporting smallholder production and buying seed cotton on own account
REA	Zimbabwe	2006/07 -	No	New
Relcor	Zimbabwe	2006/07-	No	New
Argrain	Zimbabwe	2006/07	No	New
Fleming	Zimbabwe	2001/02-	Yes	Provides contract ginning only; does not buy cotton on own account.

Source: Adapted from Poulton and Hanyini-Mlambo, (2008)

Full list of Livelihoods after Land Reform in Zimbabwe Working Papers

- Mujeyi, K. (2010). 'Emerging agricultural markets and marketing channels within newly resettled areas of Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 1*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Mandizadza, S. (2010). 'The Fast Track Land Reform Programme and livelihoods in Zimbabwe: A case study of households at Athlone Farm in Murehwa District'. *Livelihoods after Land Reform in Zimbabwe Working Paper 2*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Mbereko, A. (2010). 'An assessment of the outcomes of "fast track" land reform policy in Zimbabwe on rural livelihoods: the case of Gudo ward (Mazvihwa communal area) and Chirere area (A1 Resettlement area)'. *Livelihoods after Land Reform in Zimbabwe Working Paper 3*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Mashava, R. (2010). 'Confronting water challenges in a micro-irrigation scheme in the Umzingwane Catchment of Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 4*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Chingarande, S.D. (2010). 'Gender and livelihoods in Nyabamba A1 Resettlement Area, Chimanimani district of Manicaland Province in Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 5*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Marimira, S.C. (2010). 'Institutions, leadership and service delivery in new Resettlement Areas of Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 6*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Zikhali, P. (2010). 'Fast Track Land Reform Programme, tenure security and agricultural productivity in Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 7*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Chamunorwa, A. (2010). 'Comparative analysis of agricultural productivity between newly resettled farmers and communal farmers in Mashonaland East province'. *Livelihoods after Land Reform in Zimbabwe Working Paper 8*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Mujere, J. (2010). 'Land, graves and belonging: Land reform and the politics of belonging in newly resettled farms in Gutu, 2000-2009'. *Livelihoods after Land Reform in Zimbabwe Working Paper 9*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Murisa, T. (2010). 'Farmer groups, collective action and production constraints: Cases from A1 settlements in Goromonzi and Zvimba'. *Livelihoods after Land Reform in Zimbabwe Working Paper 10*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Matondi, G. (2010). 'Traditional authority and Fast Track Land Reform: Empirical evidence from Mazowe District, Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 11*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Muchara, B. (2010). 'Implications of the Fast Track Land Reform Programme on markets and market relationships for livestock, cotton and maize products in Mwenezi District of Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 12*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Mutangwi, G. (2010). 'The changing patterns of farm labour after the Fast Track Land Reform Programme: The case of Guruve District'. *Livelihoods after Land Reform in Zimbabwe Working Paper 13*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Chigumira, E. (2010). 'My land, my resource: Assessment of the impact of the Fast Track Land Reform Programme on the natural environment, Kadoma District, Zimbabwe'. *Livelihoods after Land Reform in Zimbabwe Working Paper 14*. Livelihoods after Land Reform Project. South Africa: PLAAS.
- Moyo, P. (2010). 'Land reform in Zimbabwe and urban livelihoods transformation'. *Livelihoods after Land Reform in Zimbabwe Working Paper 15*. Livelihoods after Land Reform Project. South Africa: PLAAS.