



THE ZIMBABWE LAND AND AGRARIAN NETWORK

State Led Contract Farming In Maize Production And Farmers' Lived Experiences:

**THE CASE OF THE MAIZE INPUT SUPPORT PROGRAMME
FOR IMPORT SUBSTITUTION IN ZIMBABWE.**

By: Abel Chemura, Walter Chambati and Freedom Mazwi



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TABLE OF CONTENTS

INTRODUCTION	1
CASE STORY 1	
Mr and Mrs Miti - Small Scale Farmer (<i>A1 Scheme</i>).....	3
CASE STORY 2	
Mr Zvepano - Medium Scale Farmer (<i>A2 Scheme</i>).....	5
CASE STORY 3	
Mrs Zanda - Small Scale Farmer (<i>A1 Scheme</i>).....	6
CASE STORY 4	
Mr Dhora - Small Scale Farmer (<i>A1 Scheme</i>).....	7
CASE STORY 5	
Mr Nungu - Small Scale Farmer (<i>A1 Scheme</i>).....	8
KEY ISSUES ARISING FROM COMMAND AGRICULTURE CASE STORIES	9
Variable Distribution of Inputs	9
Maize Yield Gap	9
Masculinity In Farm Decision Making Even In Cases of Less Competence By Men	10
Age of The Farmers	10
Transport Costs And Waiting Time At The GMB.....	10
Alternative Financing	11
Reserving Grain For Labour For Next Season	11
Investment of Proceeds From The Agricultural Enterprise.....	11
Allocation of Land For Crop Production When There Is Financing	11
REFERENCES	12

***NB:** All names of the respondents and their families referred to in this document are not their real names. Research work for the case stories was conducted by The Sam Moyo African Institute For Agrarian Studies (SMAIAS)*



INTRODUCTION

The Food and Agriculture Organisation (FAO) of the United Nations (UN) estimates that 815 million people are perennially food insecure and undernourished worldwide, and of these, close to half are in developing countries (FAO, 2017). In Zimbabwe, agriculture provides livelihoods to more than seventy percent of the population and employs more than a quarter of those in formal employment (GoZ, 2004). The sector is, however, faced with many challenges, including recurrent droughts and dry spells, inadequate technologies, limited capital and poor marketing of produce, all limiting food production (Bjornlund, 2009; FAO, 2006; Moyo and Nyoni, 2013). The food security basket in the country is made up of several crops which include maize (*Zea mays*), Sorghum (*Sorghum bicolor*), Finger millet (*Eleusine coracana*), Pearl Millet (*Pennisetum glaucum*), sweet potato (*Ipomea batatas*) and Irish potato (*Solanum tuberosum*) (ZIMVAC, 2014).

Maize is the most significant grain, not only in Zimbabwe but across the sub-continent, contributing over 60 percent of the calorie intake in East and Southern Africa (Nelson et al., 2009, Smale & Jayne, 2003). According to the GoZ (2004), the annual maize requirement for Zimbabwe is around 1.5 million tonnes to satisfy human consumption, with excess required for livestock and industrial products. To satisfy this requirement, maize constitutes about 80 percent of the total cereal production in Zimbabwe, with the product being done across a gradient of environments. This means that when production is lower than requirements, there are dire consequences for society, economies and the entire value chain (Davis et al., 2016).

One of the key strategies to deal with challenges faced by farmers is through contract farming schemes. Contract farming is an arrangement where farmers are provided with agricultural inputs, extension services and a guaranteed market on condition that they will supply their produce to the contractor who deducts the costs of goods and services and gives the farmer the difference (Eaton and Shepherd, 2001). This arrangement is regarded as 'a partnership for growth' as it guarantees the farmer inputs and markets while providing the contractor with their required produce. However, there are fundamental differences between contract farming for cash crops such as sugarcane, tobacco, tree crops and pepper, with food crops such as maize (Baumann, 2001, Wiggins et al., 2015). The differences are mainly because food crops face a lot of competition from European Union (EU) subsidised produce and these are neglected in contract farming, while crops such as sugarcane and tobacco attract international finance and have a ready market in the global world (IMF, 2011).

Thus, the dynamics of contract farming are different between food crops and cash crops with experiences, perceptions and outlook between these schemes entirely different. The government of Zimbabwe implemented a Special Maize Programme for Import Substitution from the 2016/17 agricultural season also known as command agriculture which is a state led contract farming scheme for maize. While the impacts, challenges and structure of contract farming have been documented (e.g. Mazwi and Muchetu, 2015, Moyo 2013), much of the

focus of these studies have been on contract farming for cash crops. The objectives of these case stories are, therefore, to document farmers' production and market experiences in state-led contract farming for maize as a food crop and mirror their perceptions and reflection of contract farming for food crops across production gradients, gender and varied production capacities.



CASE STORY 1:

Mr and Mrs Miti - Small Scale Farmer (*A1 Scheme*)

Mr and Mrs Miti are full time A1 farmers at Eatwell Farm in District X. They have tilled their farm since 2001 and have produced mainly maize for food security and for sale on local markets. They were contracted under the command agriculture to produce maize on 3ha, which was an increase from their traditional 1-2ha they had put under maize in the previous seasons. They heard about the Command Agriculture programme from radio stations and from their resident Agritex official in September 2015. Targeted Command Agricultural Program (TCAP) input support for 2ha was received while production on the other 1ha was done utilising resources from own-financing, thus making them able to produce dry land maize on 3ha. The inputs received under the TCAP were 500kg of basal fertilizer, 50kg of hybrid maize seed and 900kg of top dressing fertilizer. Herbicides and other pesticides were promised, but were never provided to the household. The couple entered the TCAP scheme under group contracting, but later filled individual farmer contracts to enable them to supply their maize to the Grain Marketing Board and the deduction of inputs costs was done using a stop-order facility. Their crop progress was assessed about 4 times by Agritex officers. Apart from maize, the household also produced groundnuts and round nuts in the last agricultural season.



Figure 1: Part of the family's maize harvest from the 2016/17 agricultural season.

With regards to the utilisation of labour, a total of 12 people worked on the farm in the 2016/17 agricultural season, and the majority of these (7) was family labour. Hired farm labour was used to perform tasks such as weeding, harvesting and shelling of the maize while planting and herbicide spraying was done by family labour. In the 2016/17 agricultural season, a total of 10 tonnes of maize was harvested from their farm and out of this, 6 tonnes, were attributed to TCAP. At the time of the interview, the household was planning on selling seven tonnes of maize to GMB Banket (*by 8 August 2017*), with payment expected to be transferred to the couple's bank account. The farmers believe that the prices being paid by the GMB are the best on the local market, although they are not happy with the waiting period between the

delivery of grain to the GMB and the time when payment is made. In delivering maize to the GMB, the couple uses local transport which costs \$1 per 50kg bag to the market, translating to \$140 for the transportation of their 7 tonnes of maize. Given the cash shortages, they will adopt the approach being used by other farmers of paying for the transport through grain.

Mr and Mrs Miti expect to make profit of at least 3 tonnes from their maize deliveries, and given that they will be able to have a further 3 tonnes, they will channel this grain towards household food consumption and to pay wage workers in the following agricultural season. The farmers are happy with the command agriculture scheme that they have already registered for the upcoming season. They consider themselves food secure and are planning to extend their homestead with the proceeds of the maize deliveries. They wish to invest in an urban residential stand from agricultural profits. They are also willing to get a non-government loan to support their maize production because they are sure that the maize enterprise is profitable if the rains are good and the interest rates are not punitive.



CASE STORY 2:

Mr Zvepano - Medium Scale Farmer (A2 Scheme)

Mr Zvepano, aged 55 years, has been an A2 farmer at Bosch Farm in X District, Mashonaland West Province since 2005. He believes maize production is easier in terms of technical requirements and, as such, has been producing maize as the main crop on the farm since 2005. He also produces sugar beans, soya beans and vegetables, on a smaller proportion of his farm. The farmer planted dry land maize on 10ha, 6 of which was under the TCAP. Agricultural inputs such as seed, fertilizer, herbicides and fuel were received under the TCAP. Of these, Mr Zvepano believes that the fertilizer provided was inadequate for the area he was contracted. He entered into contract with the GoZ in the 2016/17 agricultural season and apart from the provision of inputs, the government, through Agritex, also provided extension services to him. Extension workers from Agritex paid 3 visits to Mr Zvepano on his farm to check on farming progress and also to provide some agronomic services. He expressed satisfaction with the quality of services provided by the extension workers. From the arable land, he harvested a total of 40 tonnes of maize in the 2016/17 agricultural season. Mr Zvepano had a total of 14 workers engaged in maize production on his fields in the 2016/17 agricultural season, with 3 of these being permanent employees, 10 being casual workers hired on specific task and 2 family members. Casual labour was hired to perform tasks such as planting and harvesting maize from neighbouring farms, while family labour was involved in herbicide spraying and general management and decision-making at the farm.

Of the 40 tonnes of maize produced on the farm, Mr Zvepano attributes about 25 tonnes to command agriculture. He has supplied the Grain Marketing Board (GMB) with 37 tonnes of maize, with the payment being deposited into his account. He sells to the GMB because the price they offer is the best in the country. He is open to selling up to half a tonne of maize to cash buyers if they have a good offer. He plans to use the remaining yield for family food consumption and for livestock feeding. From the maize which was sold, Mr Zvepano believes he made around 20 percent profit from the TCAP support. In transporting maize to the market, he used his own small car, thus forcing him to make several trips. With regards to the market, he had no complaints about the marketing of maize and does not consider his experience of delays in payments at the GMB as negative as “such things happen in good markets and I have learnt to be patient”. Mr Zvepano considers transport costs to the market as reducing the profits for maize farmers and he proposes that the GMB should collect maize deliveries for farmers who meet a certain production threshold. He also thinks that this will deal with the problem of meeting required moisture content as a batch of his deliveries were not accepted due to higher moisture content.



CASE STORY 3:

Mrs Zanda - Small Scale Farmer (*A1 Scheme*)

Mrs Zanda is a 57-year-old A1 farmer at EATWELL Farm in X District. She started producing maize at the farm in 2004 and she has been utilising an average of 3-4ha each season producing maize because she considers it important for household food consumption. Apart from maize, she also produces soya beans and tobacco as commercial crops. During the 2016/17 agricultural season, she grew maize on 3ha utilising own finances and 2ha under the command agriculture programme. Under command agriculture, Mrs Zanda states that she received 50kg medium season variety of maize seed, 500kgs of basal Compound D fertilizer and 400kgs of ammonium nitrate top dressing fertilizer with no herbicides. With regards to the timing of the supply of inputs, she stated that the inputs for the command agriculture were supplied late after the first rains, and this reduced her yield. Also affecting her productivity in the 2016/17 agricultural season is the fact that she did not receive agronomic advice from Agritex officers under the programme.

When it came to labour issues, a total of 10 people worked on her maize crop and of these, 7 were women while three were males. A total of 5 casual workers were hired while the other 5 were family members. Hired labour was engaged in activities such as weeding, harvesting and shelling of the maize, while family labour played a supervisory role on hired labour while also performing the same tasks. Young girls and young women were also involved in planting, weeding and harvesting maize on her farm. Her husband is responsible for deciding what crops to produce on their farm and also on the marketing aspect of the commodities.

In the 2016/17 agricultural season, Mrs Zanda managed to produce a total of 12 tonnes from her 5ha maize plot and attributes 5 tonnes to the 2ha command agriculture area. Of the 12 tonnes she harvested, she managed to deliver 10 tonnes of the maize to the GMB, although she was yet to receive payment by 8 August, 2017. She plans to retain 3 tonnes of maize for food consumption, livestock feeds and for payment of labour. She used her own vehicle to transport the maize to the GMB and took 4 days to sell her maize at the GMB. Mrs Zanda expressed dissatisfaction with this time she spent at the GMB waiting for their maize to be sold and called on authorities to improve on this aspect. She indicated her willingness to continue participating in command agriculture in the 2017/18 agricultural season and highlighted that she has already registered for the scheme. Apart from maize, she also grew ground nuts and round nuts on 10% farm area for food consumption and for nutrition. She intends to invest in an urban residential stand from proceeds of agriculture and she has already bought a vehicle from previous farming proceeds. She is a full-time farmer, resident on the farm, but at times engaging in petty-trading of goods on local demand. She is open to getting a commercial loan for her agricultural enterprise. She believes that for the command agriculture programme to be more beneficial to farmers, they should decentralise the grain delivery depots, shorten the time farmers take at the market and provide the inputs in time, precisely before mid-October.



CASE STORY 4:

Mr Dhora - Small Scale Farmer (*A1 Scheme*)

Mr Dhora is an A1 farmer at Grey Farm in X District and owns a 6ha plot that was allocated to his wife who is also a local agricultural extension officer. He has been farming on this land for 5 years now, producing maize on 3ha of the arable land and setting aside the remaining 3 hectares for the production of tobacco, soya beans and sugar beans. During the 2016/17 agricultural season, Mr Dhora planted maize on all his 6ha which was supported under the command agriculture scheme.

He received 150kg of maize seed, 48 bags of basal compound D fertilizer, 35 bags of top dressing ammonium nitrate fertiliser, 100 litres of diesel, herbicides (*6 by 50g sachets of halosulfuron and 6 by 50g sachets of nicosulfuron*). To facilitate access to such inputs, he signed a stop order contract with the government. Mr Dhora is happy with the inputs provided, although he had a problem with an armyworm attack which was not planned for in the inputs provided. His other challenge under the programme was that inputs were not provided timeously, and this somehow reduced the output.

A total of 9 people worked on his farm, and out of these, 3 were women. Only 4 people were hired to provide labour while the majority (5) were family members. Labour was hired for tasks such as maize planting and harvesting while family labour was mainly involved in maize shelling, herbicide spraying and marketing. As a farmer, he believes that it is hard for women to carry knapsacks for herbicide spraying and thus should not be involved in that task. Decisions regarding production and marketing are solely taken by him on the plot.

During the 2016/17 agricultural season, Mr Dhora produced 37 tonnes of maize from the 6ha of land which was contracted under command agriculture. He believes command agriculture is a good initiative which can transform the livelihoods of poor resourced farmers and that it should continue. From the 37 tonnes he produced under command agriculture, Mr Dhora has supplied 29 tonnes to the GMB and 4 tonnes on the open market while 3 tonnes and 1 tonne will be reserved to pay wage workers and for food consumption respectively. In delivering the maize crop to the GMB, the farmer paid \$170 and informs that he waited about 15hrs at the GMB before his crop was bought. Mr Dhora was not satisfied by the way GMB workers receive the maize and he believes they are slow due to lack of mechanisation and conveyer belts. From his calculation, he will make a profit of over \$8000 from the command agriculture scheme.

For the next agricultural season, Mr Dhora is interested in participating in command agriculture programme once more as long as money is paid in time for maize deliveries by the GMB. He also indicates that he devoted his whole area to food production in the 2016/17 agricultural season and did plant other cash crops like tobacco. During the 2015/16 agricultural season, he was able to purchase a plough, 2 herd of cattle and a car from his farming proceeds. He has already registered for the command agriculture programme for the next agricultural season and believes that the best way to invest profits from agriculture is to prepare for coming seasons through buying inputs and implements. He is open to the idea of obtaining a commercial bank loan for farming if the interest rates match those of command agriculture. He believes maize production in the country can be stimulated if payments for maize are done instantly as in tobacco.



CASE STORY 5:

Mr Nungu - Small Scale Farmer (*A1 Scheme*)

Mr Nungu is a 58-year-old A1 farmer at Grey Farm in X District since 2012. Previously before command agriculture he has been tilling an average of 2-3ha for maize production on his farm because he believes maize is an easier crop to produce for farmers who do not have sophisticated agricultural equipment. Apart from maize, he also produces sugar beans, tomatoes and vegetables, although major cash crops for him are maize and tobacco. During the 2016/17 agricultural season, Mr Nungu was contracted to produce maize on all the 4ha which was under maize production and he was provided with seed, fertilizer and diesel under the arrangement. He believes that the fertilizer he was provided with for maize did not meet his requirements. Under command agriculture, he was also provided with agronomic advice from two Agritex extension officers who monitored his maize crop twice during the farming season.

Mr Nungu used a total of 5 people to work on his maize fields in the 2016/17 agricultural season. Three of these, were hired from neighbouring compounds. Hired labour performed all tasks in maize production, except herbicide spraying and the marketing of the commodity. He believes men are better able to plough using draught power and shelling as such tasks require muscle, while women are good at harvesting maize. With regards to decision making at household level, Mr Nungu states that there is joint decision making on key farming issues at household level between him and his wife.

On the 4ha, the household harvested a total of 12.5 tonnes of maize through the command agriculture programme. Mr Nungu supplied 8.5 tonnes of the harvested maize to the GMB, and he is holding on to 2 tonnes while evaluating how the GMB will do on payments. He is open to selling these on the open market on cash basis since the GMB does not pay in cash. He intends to use the remaining 2 tonnes as follows, one tonne for household food consumption and another tonne to pay for labour in the next agricultural season. The income for the supplies to the GMB will be paid through his account, but had not been processed a week after delivering his maize. He is, however, not happy with the marketing of maize in Zimbabwe as he believes that some of the employees at the GMB are corrupt as some farmers did not wait long in delivering their maize while he had to wait for three days in the queue. Mr Nungu managed to make a profit from his maize supplies of up to 65 percent and he expects to remain with some money after deducting input loans that amounted to about \$2300. He is also not convinced that the moisture content evaluation was fair as part of his maize was returned and yet some of it from the same batch was allowed to go in.

Mr Nungu is very keen to participate in the command agriculture in the next agricultural season and he has already registered for 5ha. He also produces soya beans for marketing but at a much smaller scale. Over the past three years, he has been able to buy 2 heard of cattle from farming proceeds. He states that his full-time job as security guard does not pay him much. His wish is to invest in a residential stand in an urban area using income obtained from his farming activities. He is open to the idea of getting a commercial loan for farming activities and is convinced he can produce more if provided with adequate financial resources.



KEY ISSUES ARISING FROM COMMAND AGRICULTURE CASE STORIES

→ Variable Distribution of Inputs:

There was apparent dissimilarities in the types and quantities of inputs for maize production and yet the reasons for that were not clear. For example, some farmers received herbicides (*e.g. Case 2 and 4*), while others did not (*e.g. Case 1 and 3*), and in some cases some farmers received double the amount of fertilizers compared to their peers with almost same land sizes. Quite clearly, state led contract farming has provided maize growers comparative advantage over other farmers. It is also important to state that as many studies on contract farming have shown, when a farmer is contracted and for some reason fails to produce the required outputs due to less inputs, contract farming can be a poverty trap as assets and other already accumulated resources are attached by contracting firms. It is therefore important to provide adequate inputs to farmers; it is not proper to have some farmers receiving less than their input requirements under the scheme.

→ Maize Yield Gap:

The case stories clearly reflect that farmers perceive command agriculture as having had a positive impact in their maize yields, although some productivity variables were noted among farmers. These differences can be attributed to factors such as soil type although the majority of them are as a result of the socio-economic status of the farmers as well as the design of the scheme. The farmers' experience in agriculture, education levels and general farm management practices are sometimes among other factors which results in some farmers being able to produce more when compared to their colleagues. Whatever the reasons, maize yield gaps are a major issue as many farmers are not able to produce to their maximum potential, and this means that more land is required to meet production targets, yet land is a finite resource. There are a number of high-yielding maize varieties which were distributed to the farmers under the scheme, but many farmers failed to reach the production potential. Although it is notable that production per hectare reported in these case stories averages above 2 tonnes per hectare, which is higher than the long term national average of 0.75 tonnes per hectare, farmers supported should have produced up to 10 tonnes per hectare given that some were provided sufficient resources. Other factors such as mechanisation, timeous supply of inputs and agronomic extension services for farmers need to be addressed when dealing with large scale national input schemes such as command agriculture.

→ **Masculinity In Farm Decision Making Even In Cases of Less Competence By Men:**

There is widespread evidence that farming decisions under the contract farming scheme are largely done by men at farming household level. This clearly shows that land ownership and the agricultural enterprise is still patriarchal with no deliberate efforts by the command agriculture scheme to target women farmers and women within farming households. This is problematic in ways which we state;

- (i) while men are in charge of decision making at the farm, some are non-resident as they have other jobs (*e.g. Case 5*) which provides a red tape in farming decision making leading to lower productivity as decisions are not made in time;
- (ii) the maize production value chain that does not recognize women especially wives and girls as they are reduced to unpaid farm labourers;
- (iii) knowledge and experiential learning that could improve yield potential is lost or side-lined.

The masculinity in farm decision making under contract farming is structural in that it extends from national land allocation policies to local household-level farming decisions, with a self-perpetuating mechanism.

→ **Age of The Farmers:**

Many of the farmers under the command agriculture scheme are in their late fifties, which is a true reflection of the ages of farmers in the country. This is because the condition for a farmer to be part of the command agriculture scheme was verifiable access to land, with the majority having been resettled under the fast track land reform programme from 2000. The conspicuous absence of both women and youths in the command agriculture scheme is very problematic in terms of building national agricultural capacity. It is obvious that the majority of youths in the country do not have verifiable access to land, but concerted efforts under the scheme to target young people within farming households and supporting them with inputs will go a long way in ensuring sustainability of the agricultural sector.

→ **Transport Costs And Waiting Time At The GMB:**

The transport costs to the GMB came out from the case stories as eroding farmers profits, especially for those that stay far away from the depots and from the main road network. Similarly, due to lack of decentralisation, the waiting period of 2 to 3 days at the GMB is too long and was cited as a key issue in most case stories, which tends to affect more women.

→ **Alternative Financing:**

The case stories showed that farmers require commercial loans to support maize production, but reckon that the current market interest rates are punitive. Also, farmers have been unable to access loans because banks demand collateral which most farmers do not have. Agricultural finance from banks thus remains a key issue, and its absence has led to many farmers expressing interest in continuing with command agriculture.

→ **Reserving Grain For Labour For Next Season:**

Most of the case stories revealed that in addition to retaining some of the grain for household food security, farmers also retain some for use in paying labour payment in the next agricultural season. This is an interesting dynamic in that the farmers understand added value of grain in addition to marketing for income and food consumption purposes. As to the quantities and when in the season maize is used for labour is not currently documented but requires further studies that unravel this interesting dynamic. In addition, how maize retained for labour is accounted for in terms of measuring a maize farmer's profitability also remains a mystery.

→ **Investment Of Proceeds From The Agricultural Enterprise:**

The case studies have revealed that most farmers are dedicated to farming as many of them are investing in assets through proceeds from agriculture. This commitment to agriculture proves that, with adequate support, the resettled farmers can produce adequate food for the country. We also observe from the case stories that farmers are keen to continue with the command agriculture programme in the following agricultural seasons when the expectation is that farmers who made huge profits from the command agriculture scheme are now self-sufficient. This could be as a result of the fact that the command agriculture scheme provided a one-stop shop for all agricultural inputs which is very attractive for farmers. Also, the idea of not paying for inputs directly with your money is attractive in that it can be used to build an asset base as input costs will be deducted from the current crop. This means that even if the farmer can afford to buy all inputs, the command agriculture programme remains an attractive option for agriculture financing compared to self-funding.

→ **Allocation Of Land For Crop Production When There Is Financing:**

The case stories show that farmers always plant maize for household consumption, and have increased the area under maize for commercial purposes under the scheme. This has affected the allocation of land to other commercial crops such as soya beans and tobacco as land is allocated to food crops.



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