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# A Study on the Contribution of the Agribusiness Subsector to the Sustainable Economic Development of Eastern Province, "A Case Study of Chipata District- Zambia"

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#### ABSTRACT

This research paper has discussed and presented the findings of the contribution of the Agribusiness subsector to the 'Sustainable Economic Development of Eastern Province in general and Chipata District in particular.

The research objective of this research therefore was to investigate the challenges and bottlenecks hindering the full contribution of the agribusiness subsector to the sustainable economic development of eastern province in general and Chipata district in particular.

Specifically, this research paper focused on the quantities of agro products (productivity), availability during the year (supply and demand), quality of farm produce and processed products, accessibility to financing (agriculture business loans), accessibility to the production sites (road network), availability of local processing facilities and provision of adequate energy supply.

This research is thus important for it has revealed the bottlenecks faced in the agribusiness subsector and provided recommendations on how best these identified bottlenecks will be addressed thus contributing significantly to employment creation and sustainable economic development.

Of the over 1,773 farmers (Provincial Agriculture Office – Eastern Province – 2017) in Katondo Camp of Chipata district, a random sample of 30 farmers from different production sites were targeted to capture data on productivity and accessibility (road network) to crop markets and randomly sampled groups of 40 agrodealers, 5 agro-processors, 3 financial institutions and 2 power utility companies (solar and hydro) were also identified to discuss other specific subjects. The total sample size is 100 repondents.

The data from these identified target groups was collected using a questionnaire (for farmers) and semi structured interviews and focus group discussions for the other categories of target stakeholders mentioned above. Literature review was also consulted to collect secondary data. This data was analyzed qualitatively and quantitatively and is presented in a descriptive (qualitative) and graphical way (quantitative).

- > The following recommendations have also been presented in this research paper;
- > Increasing productivity through the adoption of farming practices.
- Improvements in the quality of agro produce through grading.
- > Increased financing at reasonable lending rates to the agribusiness subsector.
- > Adoption of other sources of energy (windmills) other that hydro power.
- Improved access to production sites through improved road network.

#### Keywords:

- ✓ Agribusiness
- ✓ Profitability
- ✓ Accessibility
- ✓ Employment
- ✓ Availability
- ✓ Quality

## INTRODUCTION

Eastern Province recognizes that agriculture can raise local economic growth and reduce poverty by creating employment, raising exports and enhancing food security through promotion of Agribusiness. However agricultural production and productivity are low. Many farmers lack markets and access to low cost inputs, credit and other support services. Production costs are high. Attracting investment, expanding markets, providing adequate support services and making agriculture competitive are on the Provincial agenda to achieve agricultural development. The goal is to promote a self-sustaining agri-business led agricultural sector, which ensures increased household income and food security. (George Kasali – 2007, Assessment of Policy Impacts On The Performance Of The Millennium Development Goals In Chipata District Of Zambia) Lusaka.

#### 1. Location

Chipata is one of nine districts in the Eastern Province of Zambia with a total land surface area of 68.1 km<sup>2</sup>. It is situated some 587km east of Lusaka and it is the provincial capital of Eastern Province.

#### 2. Climate

The District enjoys a tropical climate with an average temperature of 25.9°C with a minimum of 12°C. In terms of topography, the District lies mainly on a plateau with an altitude ranging from 750m to over 1000m above sea level.

#### 3. Vegetation

In terms of vegetation the Chipata district is predominantly savanna with most of the Miombo Woodlands found in the northern parts of the district. The predominant tree species in the Miombo woodlands include Brachytegias and Julbernaldias commonly known as Mfendaluzi by the locals. Some traces of Baobab and Mulombe tree species are found in the district. These Miombo woodlands are however under extensive deforestation through vegetation clearing to create land for settlement, agricultural activities and recently for uncoordinated charcoal manufacturing.

#### 4. Rivers

For hydrology, the Lutembwe and Musandile rivers are the largest river in the district and runs from the southeast of the district and pouring into the Luangwa River in the north-western part of the province.

#### 5. Population

The district recorded a population of 455,783 in the 2010 National Census, but it is estimated that the population has increased to 511,519 out of which 49.2% are males and 50.8 are females. Chipata is a peri-urban district with about 88% of the population living in the rural parts of the district while the other 12% live in the peri-urban and urban parts.

## METHODOLOGY

#### Research strategy

The strategy of the research was to identify Government policies and programs that support or contribute to addressing challenges in the agribusiness subsector and identify key stakeholders engaged in the promotion of agribusiness. Upon knowing the Government policies and programs and identifying key stakeholders supporting the implementation of the agribusiness subsector, major crops and/or livestock of economic value were identified and this is where the research concentrated its efforts. Further, tools for data collection from various stakeholders were draft and used in the collection of relevant data.

## Operationalization of research variables

Crop/livestock production, quality control, marketing and processing are all variables which are dependent on other factors (independent variables) to be realized. Crop/livestock production is extremely dependent on the quality of extension services provided. Additionally, moisture (especially under irrigation) and farming methods are other equally important factors favorable to attain maximum productivity.

#### Sampling frame

This research exercise sampled one hundred (100) stakeholders in Chipata district of Eastern province. This sample size was arrived at after computing the approximate total number of farmers in one particular (Katondo) camp (i.e. 93,987 farmers in Chipata district/58 camps = 1,773 per camp). This sample size therefore represents 5.6% of the total population of farmers in Katondo camp. Consequently, the data on existing support (road infrastructure, power supply, processing and transportation) and trends in the agribusiness subsector was specifically collected from agro dealers, processors, transporters, financial institutions, power utilities based in Chipata town while data on crop production and marketing was sourced from farmers and BEO/CEO in the Eastern farming blocks of Chipata district thus 40 Agro-dealers, 30 Small scale farmers, 10 extension agents (BEOs and CEOs), 5 Processors, 5 Transporters and 10 key informants (Provincial Cooperatives Office, PACO, Regional Manager – ZESCO, RDA -RRU, Branch Managers – NATSAVE, Investrust, FINCA, DMCO, Zanaco Plc and Director of Engineering – CCC) were reached by this research exercise.

## Sampling techniques

The following probability sampling techniques were employed to arrive at the 40 Agro-dealers, 30 Small scale farmers, 10 extension agents (BEOs and CEOs), 5 Processors, 5 Transporters and the 10 key informants (Provincial Cooperatives Office, PACO, Regional Manager – ZESCO, RDA -RRU, Branch Managers – NATSAVE, Investrust, FINCA, DMCO, Zanaco Plc and Director of Engineering – CCC).

- > Random sampling with and without replacement.
- Stratified sampling.
- Cluster sampling.
- Systematic sampling.

#### Data collection techniques

For the survey carried out for the project, initiated by the author semi-structured interviews were conducted in the period from April 2018 until May 2017 in Chipata district of Eastern province with the Province Cooperatives Officer, District Marketing and Cooperatives Officers (DMCO), Provincial Agriculture Coordinator (PACO), Zambia Electricity Supply Corporation (ZESCO) and key informants from financial institutions. In total, 7 interviews were conducted, and three Focus Group Discussions FDGs) with Block/Camp Officers, Transporters and Crop Processing companies. The survey topic addressed socio-economic characteristics such as crop/livestock production levels, quality and availability of produce, accessibility and haulage, power supply, but also focused on the challenges, problems and benefits the farmer and agro dealer observed or expected.

The questionnaire was designed in order to get a comprehensive picture of how the farmers produce and market their produce and how agro dealers acquire, process and market their finished products, where they face problems and how they perceive their engagement in agribusiness.

Information and insights gained through field visits and observations will be considered in the analysis as well as field notes, snapshots and the information gathered from the interviews conducted.

## DATA ANALYSIS

The research yielded the following data:

**TABLE 1.0: Type of Crop Traded** 

Crops	Frequency	Percentage
Maize	7	25
Tobacco	4	14
Cotton	1	3
G/nuts	8	29
Soya	8	29
Total	28	100

#### Interpretation

Majority of the people engaged in agribusiness in Chipata district are trading in groundnuts and soya beans and very few are in cotton.

TABLE No. 2.0: Crop of main focus

Crops	Frequency	Percentage
Maize	7	23.33
Tobacco	3	10
Cotton	2	6.66
G/nuts	8	26.66
Soya	8	26.66
S/flower	2	6.66
	30	100

#### Interpretation

Twenty seven percent of the respondents indicated that their trade is focused on groundnuts and soya beans.

TABLE 3.0: Acquiring adequate quantities

Responses	Frequency	Percentage
Yes	28	93.3
No	2	6.7
Total	30	100

Majority of the respondents indicated that they are able to acquire adequate quantities of the main crops they trade in from the sources.

TABLE No: 4.0: Quantities of the main crop bought

Crop quantities	Frequency	Percentage
Below 5 tons	0	0
10 tons	0	0
Above 20 tons	0	0
50 tons	14	47
Above 100 tons	16	53
Total	30	100

## Interpretation

Larger quantities of the main crop(s) were bought by agro dealers. 53% of the respondents indicated that they bought crop in excess of one hundred tons.

**TABLE 5.0: Focus Livestock** 

Focus livestock	Frequency	Percentage
Cattle	25	83
Pigs	0	0
Goats	0	0
Chickens	5	17
N/A	0	0
Total	30	100

#### Interpretation

All the agro dealers in Chipata district trade in cattle. It was also learnt from the interview with the provincial cooperatives officer that those selling goat meat and pork are not classified as agro dealers and most of their businesses are not registered.

TABLE 6.0: Adequate supply of livestock

Supply of Livestock	Frequency	Percentage
Very adequate	0	0
Adequate	27	90
Not adequate	3	10
N/A	0	0
Total	30	100

## Interpretation

Over 90% of the respondents indicated that the supply of livestock they trade in is adequate.

TABLE 7.0: Quality of crop/livestock

Quality	Frequency	Percentage
Excellent	0	0
Very good	0	0
Good	20	67
Fair	7	23
Poor	3	10
Total	30	100

## Interpretation

Sixty seven percent (67%) of the respondents said the quality of livestock they buy from supplier is of good quality. However, about 10% of the respondents said the quality supplied is poor.

**TABLE 8.0: Financial Institutions** 

Financial Institutions	Frequency	Percentage
1	0	0

2	0	0
3	2	6.66
4	15	50
5	5	16.66
No response	8	26.66
Total	30	100

Majority of the respondents said that there are only four financial institutions in the district which provide loans to agro dealers.

TABLE 9.0: Access to loans

Access to loans	Frequency	Percentage
Very accessible	4	13
Fairly accessible	11	37
Not accessible	8	23
No response	7	27
Total	30	100

## Interpretation

Thirty seven percent (37%) of the respondents said that accessibility to loan facilities offered by the available financial institutions is fairly accessible. However, 27% of some respondents who gave no responses did not visit any financial institutions to access loan facilities.

**TABLE 10: Interest Rates** 

Interest Rates	Frequency	Percentage
Very high	8	27
High	12	40
Fair	2	7
Very fair	1	3
N/A	7	23
Total	30	100

## Interpretation

Forty percent of the respondents indicated that the interest rates at the available financial institutions are high.

TABLE 11: Accessed Loans

Have you accessed loans	Frequency	Percentage
Yes	5	17
No	25	83
Total	30	100

## Interpretation

Only seventeen percent of the agro dealers interviewed had accessed a loan from a financial institution. This indicates that majority of the agribusinesses do not access loans from financial institutions.

**TABLE 12: Paying back** 

Loan repayment	Frequency	Percentage
Yes	2	6.66
Yes, with difficulties	5	16.66
No	9	30
N/A	14	46.66
Total	30	100

## Interpretation

Majority of the respondents did not obtain loan facilities from the financial institutions. Nevertheless, majority of those who obtained loan facilities from financial institutions did not pay back the loans.

## TABLE 13: Future plans for a loan

Future Plans	Frequency	Percentage
Yes	28	93
No	2	7
Total	30	100

About 93% of the respondents indicated that they are planning to obtain a loan from a financial institution in the near future.

**TABLE 14: Processing of crop** 

Processing of crop	Frequency	Percentage
Yes	27	90
No	3	10
Total	30	100

#### Interpretation

Ninety percent (90%) of the respondents indicated that they processed the crop they bought last season.

TABLE 15: . Local processing

Local processing	Frequency	Percentage
Yes	10	33
No	20	67
Total	30	100

#### Interpretation

Despite most of the crop bought by agro dealers last season undergoing processing, most of the processing is not done locally. Sixty seven percent (67%) of the respondents indicated that processing of the crop is not done locally.

TABLE 16: Where do you process from?

Where do you process from	Frequency	Percentage
Within Chipata	19	63
Within the province	9	30
In Lusaka	2	7
Total	30	100

## Interpretation

Value addition of the most crop bough by agro dealers last season was processed within Chipata district. 30% of this crop is however processed within the province with only 7% being processed from in Lusaka.

**TABLE 17:Types of processed products** 

Types of products	Frequency	Percentage
1	7	24
2	19	63
3	4	13
4	0	0
5	0	0
Total	30	100

## Interpretation

Sixty three percent (63%) of the respondents indicated that they only produce two products from the processing. One product is usually a by-product of the entire processing.

**TABLE 18: Power Supply** 

Power supply	Frequency	Percentage
Excellent	0	0
Very good	15	50
Good	13	43
Fair	2	7

Poor	0	0
Total	30	100

Fifty percent of the agro dealers interviewed indicated that the power supply by Zambia Electricity Supply Corporation is very good.

**TABLE 19: Market for processed products** 

Market for products	Frequency	Percentage
Very good	1	3.5
Good	28	93
Fair	1	3.5
Poor	0	0
Very poor	0	0
Total	30	100

## Interpretation

Ninety three percent (93%) of agro dealers indicated that the market for processed products in Chipata district is good.

TABLE 21: Where is the market

Market	Frequency	Percentage
Local markets	22	79
Other districts	4	14
Outside the province	2	7
Export	0	0
Total	30	100

## Interpretation

Seventy nine percent of the agro dealers in Chipata district sell their produce/products within the district. 14% indicated that they also access markets from other districts within the province.

**TABLE 22: Profitability** 

Profitability	Frequency	Percentage
Very profitable	14	47
Profitable	16	53
Fair	0	0
Not profitable	0	0
Total	30	100

## Interpretation

Majority of the agro dealers engaged in agribusiness indicated that agribusiness is very profitable and profitable respectively.

**TABLE 23: Number of employees** 

Number of employees	Frequency	Percentage
1	0	0
2	0	0
3	0	0
4	0	0
5	2	7
6	10	33
Above 10	18	60
Total	30	100

## Interpretation

There is a high propensity of employment creation in the agribusiness subsector. Sixty percent (60%) of the respondents indicated that they have employed more than 10 employees in their businesses.

## **TABLE 24: Number of employees**

Number of employees	Frequency	Percentage
1	0	0
2	0	0
3	0	0
4	0	0
5	2	7
6	10	33
Above 10	18	60
Total	30	100

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#### **FINDINGS**

From the data collected and analysed, it was found that there was:

#### **Productivity**

The production (productivity) levels of major agro produce in Chipata district is very low to support a profitable agribusiness subsector

## Availability quantities

With low productivity, availability of quantities to support the agribusiness subsector are not usually readily available

## Quality

The quality of both the raw materials (crops and/or livestock) and the finished products are relatively high.

## Accessibility

Accessibility to the markets of finished products is good.

#### **Profitability**

The subsector is very profitable and majority of agro dealers are willing to diversify their businesses.

## **Employment creation**

The agribusiness subsector has high potential for job creation as indicated by this research.

## SUGGESTIONS

It was there for suggested that:

## Productivity

Improve extension services

Provision of quality seed

## Availability

Construction of bulking centers in the production sites will allow for the bringing of the crops and/or livestock together.

## Quality

Trainings and re-trainings in crop quality control should be enhanced by the extension agents.

# Accessibility

Lobbying for the reduction in the interest rates by financial institutions will allow as many agro dealers to obtain loans to expand their businesses.

## Profitability

The respondents indicated that agribusiness is very profitable and this calls for more investment into the subsector to achieve more profits.

## **Employment**

Research results indicate that agribusiness is equally important in terms of employment creation. The expansion of the subsector will contribute positively to job creation hence poverty reduction.

## CONCLUSION

This research exercise took place in Chipata district of eastern province and covered Katondo camp in the eastern block.

The findings from this research exercise are as follows;

- Low productive,
- Limited accessibility to produce markets
- Limited accesses to loan facilities
- Agribusiness is profitable
- It creates employment

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