

The Food Insecurity and Poverty in Zambia - Strategic Solutions for mitigation.

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Abstract- *this research was aimed at studying the lack of food security and poverty levels in the community of Kawama; a community 8km on the Southern part of Ndola City. It was recognized that majority of the population lacked access to sustainable sources of food, especially among the 29% of the female headed households. This study also realized that there were insufficient interventions being implemented to boost food security among household. A great disparity was noted between the costs of food basket and earning capacities in majority of households. This being a typical example for most households across the country, demonstrated that a lot has to be done by government and policy makers to mitigate this. Little was being done to help in the wake of ever increasing utility prices. In the same way, the study highlighted the potential of Agricultural intervention programs to both reduce poverty and improve food security. As most household were in low income brackets, it was noted that skills development in farming, trade and arts among active ages was necessary to help uplifting the living standards of many.*

Keywords: *food security; unemployment; MDGs; poverty; Hunger and malnutrition. Skills, Households, Agriculture and Trade.*

1. The Need For Food Security and Poverty Reduction – An Introduction

Zambia is a country with a population now standing at 16.2million¹. The growth in population should be proportionate to economic growth that should see households moving from abject poverty to low medium income earners. There should also be a mechanism to have workable plans to ensure sustainable food security at household levels.

The purpose of this study therefore, is to evaluate how far the current economic policies have gone to create a positive impact at community level.

Lack of enough nutritionally balanced meals in households is a sign of poverty. In essence the highest form of poverty is lack of food to feed a standard family of five. The major victims to this problem are the children and (expecting) mothers who have poor maternal health. The effect of this goes far to bring about stunted growth and malnutrition in children under the age of five. Under the Millennium

Development Goals (MDGs)ⁱⁱ, Zambia committed itself to reduce extreme poverty and hunger by 25% on the Copperbelt Province by 2015.

However, by 2015 only close to 18% was realized. This raises questions that require answers, whether we have made progress or not; as the cost of living going up in terms of energy, which a factor in determining cost other key household utilities. As energy prices for fuel and electricity go, they cause the cost of production for food and other necessities to go up. This cost in the end is passed on to the consumer to bear.

As the government stopped subsidizing the fuel, the transport sector had to adjust their prices and this triggered a price increase in all other sectors. It should be noted that, the removal of subsidies as meant to reduce government expenditure on fuel which was basically benefiting more for the private oil companies than the consumers it was intended for. As reported in media Minister of Finance, he said, 'the Zambia cannot continue spending as much as US\$1 billion in subsidies in a year on non-productive areas'ⁱⁱⁱ. The Minister further stated that there are going to be economic shocks that should be expected in the short term. They indeed are bound to be painful, but Zambia has to collectively endure this challenge before sustainable benefits begin to show in the mid and long term. The shock of this action was felt on households who needed to make adjustments in their expenditure pattern.

Another cost impact was felt as the electricity tariffs have been changing upwards, recently by 50% in May 2017. The justification for this was done by government as a means to sustain the utility company as well as boost foreign investment appetite in the energy sector. This change received overwhelming condemnation from civil society organization, opposition political parties and communities' country wide. Again the households were forced to make adjustments to their limited budget as millers and other producing firms passed on the cost to consumers. There need to evaluate how the communities are coping with these economic uncertainties.

1.1 Review of Literature

Some early studies on the impact of government policies on poverty and food insecurity have shown that, Zambia is among the most expensive cost elements discussed earlier, being the fuel. The removal of the subsidy, petrol prices in Zambia increased to K9.91, (US\$1.98), which is 31.21 percent above the regional average of 1.51percent, hence Zambia fuel is among the most expensive in the region. Similarly, the price of diesel in Zambia is now averaging US\$1.84 per litre, which is 28.13 percent higher than the regional average of US\$1.44 per litre^{iv}. According to the World Bank Economic indicators, the country has the second highest cost of fuel in Southern Africa, from Malawi.

1.1.2 Universal Declaration of Human Rights

According to Article 25, of the UN Human Rights Commission^v, it is cited that; Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, and housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

This is a standard for the country, Zambia to follow as it is a member of the UNHRC and the country had further recognized the need to care and provide for its citizen as enshrined in the Zambian Constitution Article 112^{vi} that,

“The following Directives shall be the Principles of State Policy for the purposes of this Part:

(c) The State shall endeavour to create conditions under which all citizens shall be able to secure adequate means of livelihood and opportunity to obtain employment;

1.3 Excessive External Dependence

The absence of significant growth and the huge debt burden have made external funding a necessity. There should be a shift to internalize the financing of government projects and programs.

Zambia needs to strengthen and develop its internal capacity. Such capacities will make the country stand without donors. Developing internally and reducing reliance on debt and external help.

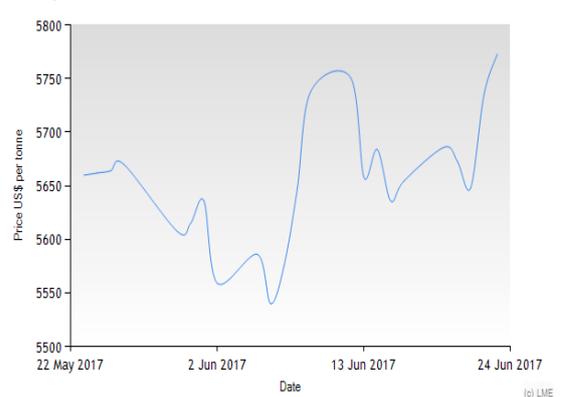
Zambia, like Botswana has capacity to utilize its natural resources such as Agriculture and tourism, which for a long time have underperformed due to lack of growth policies to drive the sectors. Zambian natural resources have the potential to increase on the exports, thereby reducing the national deficit and improving the balance of payment.

In the 2016 Budget announcement^{vii}, Government increase domestic revenue mobilization to at least 20.4 percent of GDP from 18.1 percent of GDP

projected in 2015; this is a good step toward growing internal revenue sources and reducing external dependencies.

1.1.3. The Mining Dominated Economy

The mining industry has its own pros and cons such as unstable global prices and it has proved unreliable to spur economic growth significantly. Its instability does throw the economy in deeper instability and confusion. For a long time, the economic dependence on mining has not brought major impact on poverty and food security. The graph below shows the price instability of Zambia’s most produced mineral copper for May-June 2017 at London Metal Exchange (LME)^{viii}



Source: London Metal Exchange. 15.06.2017

These prices can plummet to below US\$5,500 making unprofitable for producing countries to make a profit. This has often resulted in reducing labor and forcing mines to halt production. This usually comes back to increase the unemployment burden. However, there is potential in the gemstone mining if managed well, it can go a long way in reducing the external dependence on internationally regulated markets. This is one of the key factors that have been controlling the economic performance of the country.

1.4 Unemployment In Zambia

Unemployment is a growing concern in Zambia, many youths have nothing to do and there are many who have left universities with no prospect of finding a job. There is a negative effect that unemployment has on the society, which is;

- Increase in crime rate, as many youths turn to stealing and burglary to meet their daily needs.
- Drunkenness is another increasing problem among the youths as they tend to have easy access to alcohol. The unemployment has made many youths start drinking from the early hours of the day.

- Escalation of diseases due to the effects of alcohol and this is a challenge that causes the spread of HIV/AIDS among the youth.
- General decay in morality in both sexes among the youth, many have no respect for elders and tend to have a rebellious attitude to their parents.

These have further deepened poverty in communities as many would-be bread winners are rendered baggers. It is therefore necessary to have programs to reduce the level of unemployment in Zambia. It is important to have many interventions to counter this growing problem. There is a greater need to have a change in the school curriculum, to include the skills of entrepreneurship and business development among the youth. This will provide empowerment and ensure majority of youths have a contribution to economic growth.

There is a sharp increase in underage drinking and abuse of drugs. Intervention programs such as a taskforce to police and the beer parlors and retrieve underage patronizing such places.

2.0 METHODOLOGY

The study was conducted based on both qualitative and quantitative analysis on the data from a population of 500 households and a sample size of 100 township households as follows:

2.1 Qualitative approaches

The study will analyze the general mood and perception among the households on their future expectation and outlook of the economy. Attention will be given to the responses on non-numerical answers. This will be an analytical approach to deduce the effects of poverty and food insecurity; to generate observable outcomes in the population.

2.2 Quantitative Approaches

This study will also utilize the quantitative approach to review, analyze and manipulate the data gathered to produce statistical reference points. The following tools will be used to organize analyze and review data:

- Written Questionnaire: to gather data from respondents.
- Excel: to organize, input and clean data after collection. This tool will also be used to produce relevant graphs and charts.
- STATA: this is a preferred tool to analyze and manipulate variables to determine the existing relationships.

2.3 Specific Objectives

Poverty and Food Insecurity in Zambia & and Strategic Solutions to mitigate this.

2.4 General Objectives

The general objectives of this study were to:

- Understand the impact of the efforts made by government in eradication of poverty and food insecurity among its citizens.
- To come up with workable alternatives that could be used in making an impact on reduction of poverty in society.
- To state and measure the impact of government efforts on the implementation of food security interventions.

2.5 Research Questions

The following questions were asked with regard to the poverty situation in Zambia:

- What intervention programs are being implemented to counter hunger?
- How can we quantify the level of Poverty?
- Is there sufficient political will to counter growing poverty levels?
- When is this poverty and food insecurity going to end?

3.0 Conceptual Framework

The study is aimed at understanding the level to which food insecurity and absolute poverty is affecting communities for Zambian families. This would be determined by level of income and number of meals per day per household. There must be a balance in the diet for a single family. Number of meals per day is a powerful indicator for the level of poverty in communities. When a family can afford to have enough food to feed on, the rest of the problems are made secondary. The family with sufficient to eat, can easily manage some other problems at hand. Another indicator to determine the food security and poverty is the head of household. Homes with both mother and father tend to more stable than homes led by women households.

It is important to nutritionally balance the diet on every meal. Lack of this leads to deficiencies in bodily functions.

4.0 PRESENTATION OF RESULTS

4.1 Research Data Materials

The data collection was conducted over the period of two months. This involved door to door convenience sampling method, as households were closely located. Data collection was done by way of personal interviews using a structured questionnaire.

The questionnaire was designed to collect information on the various aspects of the living conditions of the households.

One problem encountered in data collection was apathy by some members of the community; this was construed to be due to privacy concerns on personal information and reluctance. However, some took at opportunity to share their concerns and feelings—thanks to those!

4.2 Definitions and General Concepts

4.2.1 Head of Household - This is the person all members of the household regard as the head and who normally makes day-to-day decisions concerning the running of the household. The head of the household could be male or female.

4.2.2 Household -A household was defined as a group of persons who normally eat and live together. These people may or may not be related by blood, but make common provision for food and other essentials for living. A household may comprise several members and in some cases may have only one member.

4.2.3 Poverty Status - All households and household members were assigned a poverty status based on the household expenditure and/or consumption. Each member of a household had the same poverty status as assigned to the household poverty status.

4.2.4 Employee: A person who worked for a public or private employer and received remuneration in wages, salaries either in cash or in-kind.

4.2.5 Self-employed: Refers to a person who operated his or her own economic enterprise(s) and hired no employees.

4.2.6 Household monthly income: This is the monthly earnings of a household from engaging in economic activities such as the production of goods and services, and the ownership of assets. Household monthly income is the sum of all incomes of household members.

4.2.7 Poverty Level Determination – this was determined according to the Central Statistical Office (CSO) use of the Cost of Basic Needs (CBN) approach when measuring welfare outcomes of various households (Ravallion, 1994; CSO, 2004)^{ix}. This method essentially starts by determining the cost of a simple food basket that meets minimal nutritional requirements for a family of six.

4.3 Systematic Review and Material Analysis

Research was conducted to study on the living conditions, poverty, and hunger and food insecurity issues of majority of Zambian communities. This study was conducted in Ndola, in a community of Kawama Ward, 8 kilometres from Ndola City Centre. This community is typical of many communities in

Zambia and these will give a glimpse into the conditions obtaining in the general populace.

4.1 Observations: The general outlook of the community under review showed despondence toward the worsening living condition. This was evident as answers came forth on basic things they could not afford. This reflected heavily in the data and information, showing a sense of hopelessness in the way the economy is turning out to be. Fig 1.0 shows the response to the future economic expectation.

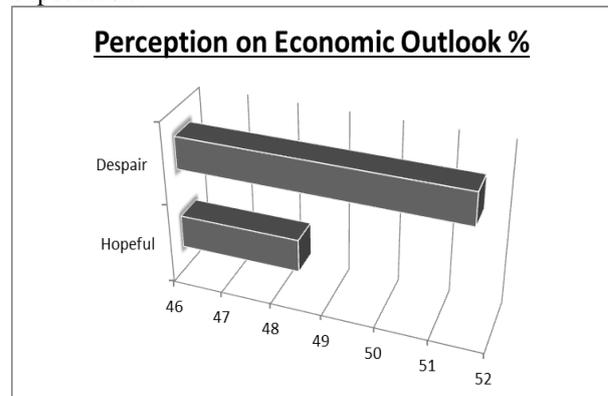


Fig 1.0 perception on future economic outlook.

Zambian citizens traditionally values the extended family set up. The average household consists of at least five people, in which only one has the potential to earn an income. The rest of the family members are recipients. So with low level of income, there is always enormous pressure from the head of household to provide. This pressure coupled with the increasing cost of basic needs, creates a state of despair.

It was also discovered that 29% of households were headed by women either widowed, unmarried or divorced, compared to 71% of male headed households. This is the group found most vulnerable to abuse and neglect. This is an alarming and this is where a lot of children also suffer hunger and lack of nutritionally balanced food. Figure 2.0 shows the trend in female headed households:

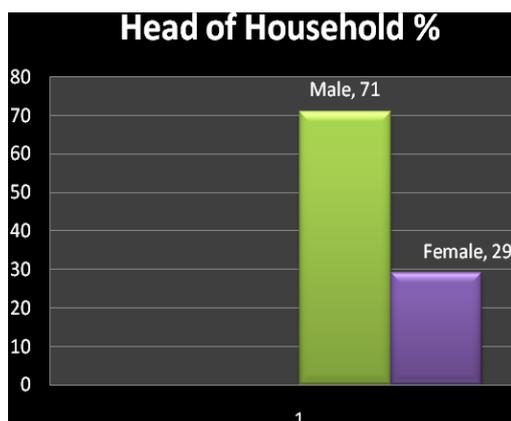


Figure 2.0 Female Headed Household

This group offered a more dismal condition as they contended with limited income and pressure to provide for their families. Women headed households also showed that they were not able to meet the daily food requirements, which three meals per day. This was identifiable through the dependent variable ‘meals per day’, which gave evidence of food insecurity. Most of these female led households resorted to selling vegetables, beans, potatoes as a means of providing source of food to family. Figure 2.1 below shows the percentage of 29% population having less than three meals per day, compared to 71% who did. Most indicated that they had little food to manager three meals per day. However, even some of the male headed households showed critical imbalance in terms of food security. Some indicated they could manage three meals per day, but the condition of Children showed nutritional deficiency.

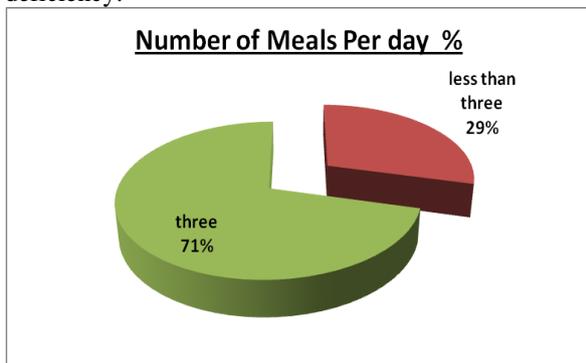


Figure 2.1 Percentages of Meals per Day per Household.

The 71% is in the bracket of those household who had some form of stable income through salary, trade and farming activity. However, majority of these people are on the low income side to guarantee sustainable food security, and affordability of basic human needs. This way, it is difficult to have a variety foodstuff to provide a balanced diet. These low income households have their income distributed

among the many basic needs such as energy, water, rent/shelter, food and other needs.

It was also empirically visible that majority also lack capacity to provide a decent education to their siblings. This is a great concern, especially in households with girl children being vulnerable to early marriages and teenage pregnancies. Family with the weak income brackets as shown below in Figure 2.3; cannot stretch their income beyond feeding:

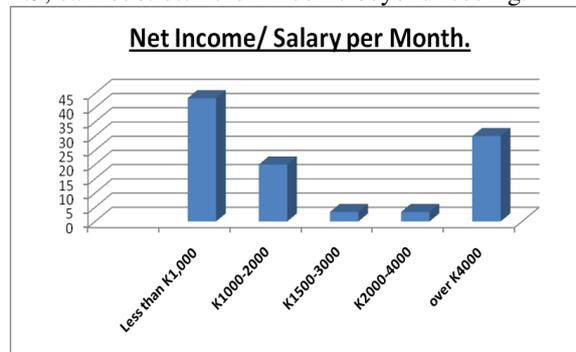


Figure 2.3 Net Income / Salary per Month

Majority of these households fall below the sustainable income level as can be seen in figure 2.3. Comparing these results with the current cost of basic needs for Ndola Town, there is a dreadful realization that non in the income groups is able to sustain their household needs with the prevailing income. According to the Jesuit Centre for Theological Reflection (JCTR)^x, the Basic Needs Basket for Ndola Town as at April 2017, the following is the obtaining reality:

JCTR BASIC NEEDS BASKET FOR NDOLA AS AT APRIL 2017

Basic Food Items for a family of Five	ZMK	1,815.98
Essential Non-Food Items	ZMK	2,796.37
Total for both but less additional costs such as medical, school and transport costs.	TOTAL	4,612.35

Table 01: Source: JCTR April 2017 BNB for Ndola Town

The information above does suggest that the Cost of Basic needs per household of five people in the community under review is above the income levels of more than 80% of the population.

4.4 The Scientific Relationship (regression)

The study was also conducted to determine whether income (independent variable) does affect the number of meals (dependent) a household have. The result showed that there was a strong relationship between the two variables and there was 95% confidence interval, with the chi square value of 0.022 =2.2% and regression of 0.1733, as shown in the table 2.0.

. regress mealsday incomesalary				
Source	SS	df	MS	
Model	1.01698371	1	1.01698371	Number of obs = 30
Residual	4.84968295	28	.173202963	F(1, 28) = 5.87
Total	5.86666667	29	.202298851	Prob > F = 0.0221
				R-squared = 0.1733
				Adj R-squared = 0.1438
				Root MSE = .41618

mealsday	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
incomesalary	.1066766	.044024	2.42	0.022	.0164975 .1968558
_cons	2.45953	.1361665	18.06	0.000	2.180606 2.738454

Table 2.0: Regression model. Meals against Income

The study showed that the most stable households are those involved in trading and agricultural activities. This group demonstrated capacity to have sufficient food for their families. Again another two variables were tested to see how they affect households on food security. The variable of number of meals per day against the members per household. This too showed a stronger relationship that there was a stronger link to the lack of food security in households as Table 3.0:

. regress mealsday familymembers				
Source	SS	df	MS	
Model	.447370003	1	.447370003	Number of obs = 30
Residual	5.41929666	28	.193546309	F(1, 28) = 2.31
Total	5.86666667	29	.202298851	Prob > F = 0.1396
				R-squared = 0.0763
				Adj R-squared = 0.0433
				Root MSE = .43994

mealsday	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
familymemb-s	-.110009	.0723581	-1.52	0.140	-.2582279 .0382099
_cons	3.213706	.3260133	9.86	0.000	2.545898 3.881514

Table 3.0 regression model: Meals against Family Members.

These two models demonstrate that the families are not having enough to eat and therefore are living in abject poverty. Families that have shown resilience are those that combined some level of income with trading and agricultural activity. They provided hope that food security is possible. Figure 2.4 shows the group of 42% of this group who agreed that supplementary income to support their families:

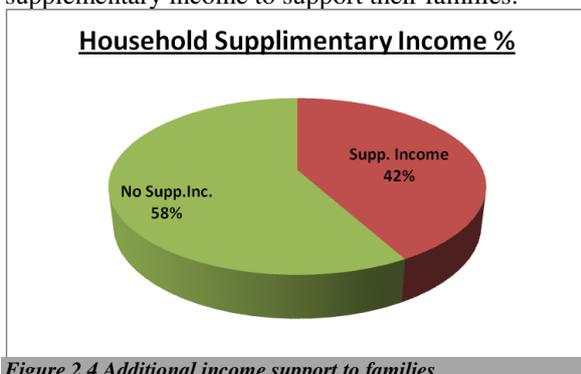


Figure 2.4 Additional income support to families.

Any increase in commodities such as electricity and fuel, means increasing the cost of food basket and widening the gap further to keep majority of families deep into poverty. Obviously now the major concern is on the children in these household. Majority was

exposed to poor nutrition and at high risk of be stunted and likely to contract other hunger related diseases. This study help measure the Absolute poverty^{xi} existent and common in majority household in Ndola- Kawama area, all things being equal, this is typical of most communities in townships in Zambia as they are exposed to similar variables.

5.0 Discussion.

A look at the hypothesis and objectives with regard to this analysis; reveal the growing disparity between needs of the people and government policies. This clearly states that little effort is being done to improve the living conditions of majority of households in communities. This to many is a point of political argument, but according to this research, there is no strong political will to counter food insecurity and poverty.

The 29% not able to have full meals per day is huge, which raised concern on the health implication on children. The effects of lack of sufficient food leave many:

- Malnourished and stunted
- Dropped out of school
- Girls vulnerable to early marriages.
- Sinking deeper into poverty



Underage girl with her child.

There were no intervention programs to make people self-reliant and active. However, among the 71% still there exist people not managing the meals. It was also plausible that the nutritional content in food was lacking. More needed to be done to uplift the living standards of the people.

As a country, Zambia risks sliding back on the benefits of achieved MDGs Goal 2, which is

achieving universal primary education. This is because many households with not take their children to school due to impact of poverty.

The greater concern is how to keep the girl child in school where there is little or no financial capacity. Majority of the most productive age groups 25 – 45 years have no meaningful source of income. Most end up indulging in illicit activities such beer drinking and stealing. Year in year out, the country records a bumper harvest in maize production. But this does not fully impact on the grassroots. One may ask why there seems to be hunger in homes.

5.1 Recommendation and Conclusion

There are identifiable areas for community growth which have been noted to increase the potential to reduce poverty and hunger. The following have been identified to have the potential to reduce poverty and hunger:

5.1.1 Agricultural Activity

The government should focus on implementing agricultural intervention initiatives at household level. This should be done by making resources such as inputs affordable and available to all.

The government should also encourage diversification in households and among small scale farmers. Other potential crops other than maize are Soya beans, Sun flower, groundnuts millet, etc. these have not only the potential to end poor nutrition but also earn households income. There is also need to encourage the use of agricultural technologies aimed at improving yields for poor farming communities.

The World Bank Agricultural Productivity Programme for Southern Africa (APPSA)^{xii}, to which Zambia is a part, is a great initiative that can benefit many.

As stated, the program recognizes; *'Agriculture as the largest sector in the economies of the three countries and a major source of livelihoods for an estimated 277 million people living across Southern Africa'*. Raising agricultural productivity is critical for fighting poverty, achieving food security and protecting the environment. This one vehicle can be used in collaboration with the international community initiative that recognizes the importance of eliminating poverty through agriculture.

To this effect, the Government of Zambia received \$30million loan this year (2017) under the APPSA programme through the Zambia Agricultural Research Institute (ZARI)^{xiii} to focus on technology generation and dissemination, infrastructure and human capital development, coordination and facilitation, as reported in print media dated 30th May 2017.^{xiv} It was further stated that this will benefit 2.3million farmers and other end-users.

It is the hope of the researcher that these initiatives are carried out with maximum efficiency so that benefits

can trickle down to household levels. As much as implement efficient agricultural methods, we should also embark on value addition to our produce. This will ignite the entrepreneurial growth and increase agricultural exports and ultimately improve the balance of payments. This sector should not be handled casually, but with strong resolve to make Zambia a real food basket. The African Development Bank (ADB), through the FEED AFRICA: Strategy for Agricultural Transformation in Africa,^{xv} states that; *increased food demand and changing consumption habits driven by demographic factors such as population growth and urbanization are leading to rapidly rising net food imports, which are expected to grow from US\$35bn in 2015 to over US\$110bn by2025.*

This is calling for action to turn this trend and change begins with individual countries like Zambia to set the pace for the rest of Africa. Value addition and agricultural exports have the potential to create employment and reduce poverty further. This needs concerted efforts, we have mismanaged this sector for long, and it's time to wake up. Only Zambia can achieve food security for Zambians.

5.1.2 Trade and Skills development

As mentioned earlier, majority of Zambian youths are lacking sustainable skills, there is need to develop life-sustaining skills across the country to help mitigate youth unemployment. Government should come up with Empowerment schemes for the youths to enable them contribute to the economic development.

Through the government ministries, youth skills training centers should be develop for various crafts. This would give more hope and direction to the youths, who seem marginalized economically. Government should roll out tangible development programs for youths, such as encouraging youths to take up agriculture training skills such as fish farming, at early age and provide resources.

5.2 Conclusion

The problem of poverty and food insecurity is not new but this research shows that conditions of these two ills could be escalated to unmanageable levels, if intervention is not forthcoming and efficient. Policy makers should aim at underpinning the importance of developing multiple agricultural programs to enhance food security in households at community levels. Promote farming activities by providing affordable inputs, training and infrastructure necessary. Building a healthy and wealthy Zambia begins with a nutritionally balanced meal. As Wealth begins with good health, poverty will end with good nutrition.

Time to change the youth is now, turning their energy into a synergy of productivity. Engaging the youth is critical to create a sense of direction and induce creativity. Great potential is being wasted through drunkenness and careless indulgences. It is time to take stock of our capabilities as a nation and use them to fight hunger and poverty.

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^v <http://www.ohchr.org/EN/UDHR/Pages/Language.aspx?LangID=eng>

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http://www.jctr.org.zm/images/BNBs/Ndola_April_BNB.pdf Accessed on 07.06.2017

^{xi} **Absolute poverty:** uses a poverty line based on a fixed expenditure or consumption level. Absolute poverty lines typically specify the amount of money that is required to

Meet a minimum standard of living, such as basic nutritional requirements and essential non-food necessities (basic clothing, housing, etc). Living Conditions Monitoring Survey Report, p176, CSO

^{xii} <http://www.worldbank.org/en/news/press-release/2013/03/14/world-bank-support-boosting-food-production-malawi-mozambique-zambia>

^{xiii} The Zambia Agriculture Research Institute (ZARI) is the largest Agricultural research entity in the country. It has 10 research stations with Mt. Makulu Central Research Station Being the institutes Headquarters. The Institutes overall objectives are to develop and adapt crop, soil and plant protection technologies and to provide a high quality, appropriate and cost effective service to farmers.

^{xiv} The Zambia Daily Mail; date 30 May 2017, *Finance and Agri-business*.

^{xv}

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