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A REVIEW OF CHANGES IN PRICE OF COWPEA IN NIGERIA

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Abstract: **Cowpea is a common source of protein in most Nigerian homes. The leguminous herbaceous crop has several nutritional benefits such as high source of healthy carbohydrates and protein content of about 25-35% in addition to Vitamins B1, B2, B6 and B9 and other essential amino acids. It also prevents cancer and has muscle and tissue healing qualities. In Nigeria, cowpea is majorly produced and distributed by Northern States of Borno, Adamawa, Kano, Sokoto, Gombe and Jigawa where the weather is dry, with minimal rainfall and supports the cultivation of the crop. The produce is bagged and transported to the Southern States where it is considered a delicacy. Unfortunately, in recent times, these Northern States have experienced series of unrest from the Boko haram crisis to the most recent clashes between herdsmen and farmers which have left many farms fallow with little to no cultivation as many farmers have fled for their lives. This in addition to unstable rainfalls required for the vegetative growth of cowpea has led to a drop in yield. This paper seeks to review changes in the market price of cowpea across Nigeria as a result of the aforementioned; how this affects production and distribution of the produce, reaction of farmers and consumers and how the current situation could be managed.**

Keywords: **Cowpea, Production, Price change.**

1. INTRODUCTION

The cultivation of cowpea which has been widely accepted as an ancient crop can be dated as far back as 2300 BC according to archaeological evidence. Cowpea, *Vigna unguiculata.* L is an annual leguminous crop with its origin in West Africa. The crop which can also be referred to as blackeye peas, southern pea, crowder pea, lubia, niebe, coupe or frijole has increased in yield over the last 25 years (Davis et al, 1991). Though originally predominant in Africa, the cultivation of cowpea has spread to other continents like South America; where Brazil is at the top of the production chart; Asia, Middle East and Southern Europe.

According to Coulibalay et al, 2004, worldwide cultivation of cowpea is estimated at 3319375 MT with Africa producing over 75% annually. In Western Africa, Nigeria and Niger top the chart producing about 2,000,000tonnes annually.

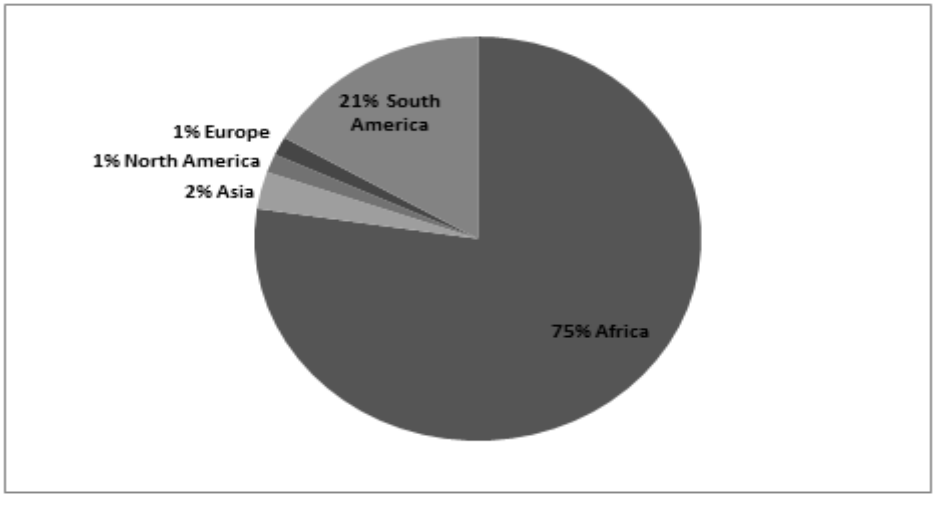

Figure 1: Global Distribution of Cowpea production

Source: FAOSTAT 2000

Cowpea is an herbaceous crop that is widely cultivated due to its ability to thrive in sandy soils and conditions of minimal rainfall. It has so many economic importances' including its ability to fix atmospheric Nitrogen in the Soil due to its symbiotic interaction with Rhizobium Leguminosarum, a bacterium through which the Nitrogen transfer is carried out. Some parts of the plant vegetables can also be fed to animals as forage, while the husk from dried bean pods can either be used to set fires for cooking in rural settings or also fed to animals as an essential source of fibre. In some parts of the world like Asia, the roots are used as an antidote for victims of snake bite while the leaves in addition to being served as forage can be used as bandage on skin swellings. Cowpea cultivation usually does not require alot of inputs such as fertilizers and other agrochemicals.

Cowpea is one of the major sources of protein in most Nigeria homes, largely due to its availability and low requirements when it comes to cultivation. In addition to its high protein content, cowpea contains Iron, Potassium and Vitamin B9, traces of Vitamins B1, B2, B5 and B6 as well as some amino acids. It is low in fat and calories and is often recommended for persons looking to lose weight. It prevents cancer as a result of the high quantity of Vitamin B9, and prevents anaemia as well as aids metabolism, maintain strong bones, repair muscle tissue, maintain bowel health, prevents depression and diabetes and encourages mental health (Health Benefit Times).

The growth pattern of cowpea varies and could be determinate meaning that growth occurs only during part of the vegetative season and then stops; or indeterminate meaning that in contrast to the determinate growth that stops after some time, the indeterminate growth is continuous. It can be erect, semi-erect of left crawling like on most Nigerian farms. The ideal soils for cowpea are sandy and it has better tolerance for infertile and acid soil than most other crops. The plant is expected to mature during the rainy season making the time of planting very crucial for productivity. Temperature of 30 °C (86 °F) is required for vegetative growth and maturity. Leaves can be picked and used as forage from 4 weeks after planting while grains can be harvested after about 100 days (Production Guidelines of Cowpea, 2011). Fungal and viral diseases of cowpea include fusarium wilt, southern blight and mosaic virus which can be controlled by planting certified resistant varieties, use of fungicides, removal of viral infected plants, etcetera. Insect pests are the major predators of cowpea and it is a major factor affecting yield of the crop as well as post harvest losses experienced by farmers. In times past in Nigeria for example, large quantities of pesticides was sprayed to preserve the grains after harvest, most of which were hazardous to human health.

Cowpea is a crop ideal for poor farmers living in West Africa where it is most times intercropped with maize, millet or sorghum, as it can survive conditions of low rainfall often less than 500 millimetres (20 in) (Dugje et al, 2009). In Nigeria, according to FAOSTAT 2000, there is a deficit in cowpea production as the annual harvest is barely enough to meet nationwide demand. Despite being the largest producer of cowpea worldwide at a rate of 58% and 61% of Africa's annual cowpea harvest, Nigeria barely produces enough to meet its own needs as it also doubles as the world's largest consumer of the produce (Carlos, 2004). This may be largely due to the fact that cowpea production is limited to States in Northern Nigeria such as Borno, Adamawa, Zamfara, Yobe, Gombe, Sokoto and Kano (AgroNews, 2016).

The bulk of Nigeria's farming population is found in rural households that often battle with various agricultural problems such as bureaucracy and inability to access finance, poor infrastructural development including feeder roads and adequate storage facilities, unfavourable and unstable government policies etc., with most of them dependent solely on locally sourced inputs and implements thus limiting annual yield of agricultural produces. One other major obstacle limiting the growth and expansion of the agricultural sector in Nigeria is inefficiency/inability to access the available marketing systems and inadequate marketing of agricultural produce (Carlos, 2004). These and many other problems such as seasonality of cowpea, inability to access funds and inputs have lead to increase and fluctuations in price (Amusa et al 1994).

The major objective of this research paper therefore, is to review recent price hikes in the market price of cowpea in Nigeria, mainly due to unstable rainfalls in previous years as well as unrest in the northern part of the country.

2. MARKETING AND PRICING OF COWPEA IN NIGERIA

2.1 Cowpea Marketing in Nigeria:

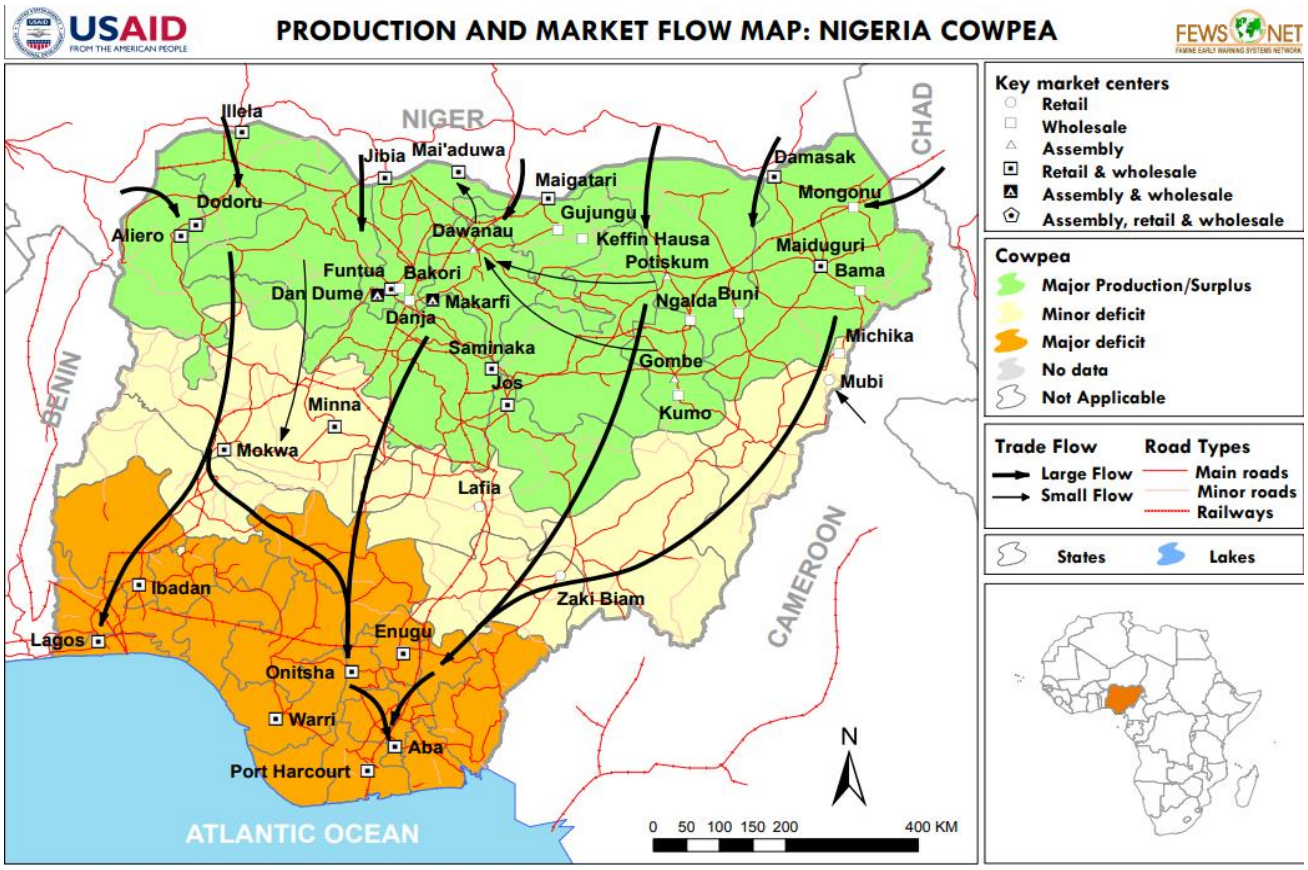

Figure 2: Production and Market Flow Map of Cowpea in Nigeria

SOURCE: FEWSNET

Figure 2 above shows the market flow of cowpea in huge quantities from the North to the South where there is huge deficit. Nigeria's cowpea market is currently run by local sellers who source the produce from rural farmers. At best, these farmers come together to form cooperatives for enabled access to credit facilities and available markets like the case of Kano's Dawanau market - the largest cowpea market in the world (Carlos, 2004) where traders are organized into a formal market union. The main role of this formal market union is to negotiate with the government over issues such as taxes and market infrastructure. (Langyintuo et al, 2003).

Insufficient statistics on global cowpea production and distribution since FAOSTAT 2002 is a major setback. It is estimated that a greater part of cowpea marketing in Nigeria is done in informal markets where there is little or no control form the Federal Government. Buying and selling is hugely dependent on buyers and sellers meeting in local markets. In this case, prices are not fixed as farmers are most times out to discard the produce as quickly as possible to avoid post-harvest losses caused by lack of storage facilities. They accept lower prices or whatever the buyer is willing to offer. This was the case as of 2015 – 2016.

According to FAOSTAT 2000, approximately 4 million hectares are cultivated annually in the cowpea industry, most of which are consumed with an insignificant proportion going into International trade (Carlos, 2004). Cowpea is usually bagged in 100kg bags by local farmers in most cases but sometimes merchant traders and sent by Lorries to the humid south where the produce is rarely cultivated due to unfavourable climatic conditions.

Overtime, it has become clear that the market structure of cowpea Nigeria is one that lacks organisation since most of the marketing is done by the farmers themselves. It has therefore; become pertinent to restructure this marketing system for improved efficiency and organisation (Yohanna, 2015) as an efficient marketing system enhances the pace of economic development by encouraging specialization, generation of foreign exchange earnings, development of an exchange economy, provision of income and employment opportunities for marketing agents (Olukosi et al 2005).

2.2 Price Volatility:

Market prices are the outcome of the interplay between demand and supply and they become volatile whenever their relationship changes e.g. through demand and supply shocks (Mathias, Lukas, Marta, Pierre and Maximo, 2013). Price fluctuations are normal and necessary for a competitive market, even though price volatility in global agricultural markets are rising and pose a threat to the world's food security (FAO, 2010). Instability in the price of agricultural commodities on one hand may be detrimental to the market system and economy as a whole, causing disproportionate distribution of resources among key market players as well as increase poverty level among low income earners. (Yohanna, 2015). Rise in price of agricultural commodities may be due to increased cost of farm inputs such as fertilizer, seeds; civil unrest, unpredictable weather, unfavourable policies and natural disasters.

2.3 Trends in Price of Cowpea in Nigeria:

The most recent rise in the price of cowpea in Nigeria was as a result of huge decline in annual yields. Even though there has been the usual fluctuation in the price which is healthy for any growing market, in 2008 the price of cowpea sharply increased from ₦14,000 to ₦16,000 per ton (Yohanna, 2015).

Compared to July 2017, Nigeria's North Eastern markets show relatively hugher increment in price of cowpea (FEWSNET, 2017). The paper further stated that the price of cowpea increased in Damaturu and is cheapest in Potiskum which captured the lowest cowpea price, among selected markets. In 2016 when the Fulani-farmer clashes worsened leaving most farms destroyed and farmers homeless, the price of cowpea sky-rocketed from ₦17,000 – ₦20,000 and subsequently to over ₦40,000 per 100kg bag in 2018.

In reviewing the changes in price of cowpea in Nigerian markets between 2008 till date, the following factors were discovered to be the cause;

1. Insurgency: in 2009, states in the North Eastern part of Nigeria were thrown into a state of civil unrest due to Boko Haram attacks. This unrest saw farmers leave this region to Internally Displaced Person's camps across different parts of the country, leaving farm lands fallow. The most recent unrest is as a result of the clashes between Fulani herdsmen and farmers in the North Central States of Benue, Plateau, Kogi etc. Out of fear, most farmers have left their farms and this has greatly affected annual yields of cowpea, which in turn led to an upshot in price of the produce between 2017 and 2018. Today, a 100kg bag of cowpea goes for as high as N40,000 from about N16,000 per bag in 2015.

2. Climate change: although cowpea has minimal input and rainfall (about 400 – 700mm/annum) requirement for growth, periods between 2014 and 2016 witnessed low amount of rainfall of about 150 – 200mm during the rainy season (May and October) in North Eastern Nigeria where bulk of the country's cowpea is sourced from (FEWNET, 2016). In addition to low rainfall is desertification which has consumed about 351,000sq.km of arable farmland in North Eastern Nigeria (Olagunju, 2015). These climatic factors reduced the annual yield of cowpea and led to an increase in the price of the produce.

3. The role of middlemen: the cowpea marketing channel involves active participation of middlemen who buy from farmers and sell to wholesalers or directly to consumers. Overtime, middlemen have engaged in the hoarding of the produce when production is in surplus and subsequent release during off-season. This also affects the price of cowpea since the middlemen control the availability of the produce as they so desire.

3. CONCLUSION

The cowpea industry in Nigeria has not been taken seriously over the years. Many believe it is a common food crop unlike cocoa, kola, oil palm and recently yam that are produced not only for local consumption but for international trade as export commodities. Research has shown that very little input is required for the cultivation of cowpea, it requires minimal amount of rainfall as well.

The unrest in the North even though has limited production which has led to an upshot in per unit cost of cowpea, should be an opportunity to research on new areas where the crop can be conveniently grown in large quantities. In a recent project conducted by the Food and Agriculture Organisation, where rural farmers were given new improved high yielding and more nutritious variety of cowpea to increase protein intake and by extension, improve nutritional security in the area, the farmers after harvest sold the produce and continued to feed on cereals. This shows that farmers are very much interested in the commercial cultivation of cowpea even at the detriment of their own health.

Cowpea is an economically important crop with a wide range of nutritional benefits, thus, it is important that the industry be supported to increase agricultural productivity, boost the country's economy and improve food security. One of the

challenges faced in Nigeria's cowpea industry is the problem of inadequate data/statistics. In order to grow the subsector, it is important to take note of past statistics and trends over the years to understand areas that require immediate intervention.

Even though the unstable rainfalls in 2016/2017, desertification as well as the unrest in Northern Nigeria gravely affected the output of cowpea which lead to rise in price, it is anticipated that the stable rainfall in 2018 will increase produce available in the market at lower prices in 2019.

4. RECOMMENDATIONS

Some of the recommendations made based on this review include;

- There is a need to ensure that an archive of data/statistics in cowpea production be maintained by relevant institutions;
- Increased productivity to meet up with international trade as well as to provide for surpluses that can be stored for use during periods of scarcity
- Adoption of new improved, high yielding varieties to meet up with Nigeria's growing population's demand;
- Government intervention in the provision of adequate and improved storage facilities for cowpea;
- Regular evaluation of the effect of trainings conducted by extension workers.

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