

**THE PROBLEM OF COWPEA AND MARKETING
IN CHANCHAGA LOCAL GOVERNMENT
AREA OF NIGER STATE**

BY

AMINU MANKO

VE/10/46363

RUKAYAT SULEIMAN

P D 46430

PHILOMENA AMIYE ADEDE

P D 46557

KEHINDE OKE LOVE

P D 46324

**DEPARTMENT OF AGRICULTURAL SCIENCE
EDUCATION
NIGER STATE COLLEGE OF EDUCATION MINNA**

AUGUST 2013

Agri/sci

31

**THE PROBLEM OF COWPEA AND MARKETING IN CHANCHAGA
LOCAL GOVERNMENT AREA OF NIGER STATE**

BY

AMINU MANKO	VE/10/46363
RUKAYAT SULEIMAN	VE/10/46430
PHILOMENA AMIYE ADEDE	VE/10/46557
KEHINDE OKE LOVE	VE/10/46324

DEPARTMENT OF AGRICULTURAL SCIENCE EDUCATION

NIGER STATE COLLEGE OF EDUCATION MINNA

AUGUST, 2013

**THE PROBLEM OF COWPEA AND MARKETING IN CHANCHAGA
LOCAL GOVERNMENT AREA OF NIGER STATE**

BY

AMINU MANKO	VE/10/46363
RUKAYAT SULEIMAN	VE/10/46430
PHILOMENA AMIYE ADEDE	VE/10/46557
KEHINDE OKE LOVE	VE/10/46324

**BEING A LONG ESSAY SUBMITTED TO THE DEPARTMENT OF
AGRICULTURAL SCIENCE EDUCATION.
NIGER STATE COLLEGE OF EDUCATION, MINNA**

**IN PARTIAL FULFILMENT OF REQUIRMENT FOR THE AWARD OF
NATIONAL CERTIFICATE ON EDUCATION IN AGRICULTRUAL
SCIENCE EDUCATION STUDIES**

AUGUST, 2013

APPROVAL PAGE

This Project work has been supervised and approved by the undersigned as meeting the requirement for the award of National Certificate on Education of Niger State College of Education, Minna.

Ahmed Sunday
Project Supervisor

01/07/13
Date

Head of Department

Date

Dean, School of Vocational Education

Date

DEDICATION

This essay is dedicated to our beloved parents and to Almighty God.

ACKNOWLEDGEMENT

Our special thanks goes to Almighty God for the strength, wisdom, courage, knowledge and understanding given to us throughout the period of our academic pursuit in the school.

Our special gratitude also goes to our parent and family members for their financial, moral encouragement towards the successful completion of our studies, we appreciate all the true love, care, patience and understanding you show throughout the years.

We also appreciate the encouragement and enthusiastic assistance of our supervision in person of **MR. AHMED SUNDAY** for guidance, with super correction and explanation which made this work a reality.

We also appreciate the effort of our **HEAD OF DEPARTMENT** in person of **DR. ABEL OKOH** and other lecturers within and outside the department for the knowledge they impacted on us, may God bless them all (Amen).

ABSTRACT

The study examined the problem of cowpea and cowpea marketing among the farmer of Chanchaga Local Government Area of Niger State, Nigeria. The specific objectives were to estimate; identify the marketing channel used in marketing cowpea in the study area, to examine the role of middlemen in marketing of cowpea, to identify the problems of marketing cowpea in Chanchaga Local Government of Niger State and suggested possible solutions to the identified problems. Random sampling technique was employed to select total of (100) respondents. The data for the study were collected from primary sources by the use of structured. The analysis revealed that majority of respondent were between the age group of 41 - 50 (36.25%), majority (70%) were male, majority (86.25%) are married, all most all the farmers have undergone either secondary school or attended tertiary institution. The resource use efficiency in cowpea production revealed that high cost of labor, lack capital and lack improved varieties of seed, were the problem affecting cowpea production in the study area and the functions of middlemen makes the marketing of cowpea problematic for farmers as there, functions drives up the price of the commodity and also lack of universally acceptable means of measurement. It was recommended that the functions of middlemen should be reduced and universally acceptable means of measurement be provided.

TABLE OF CONTENT

CHAPTER ONE

- 1.0 Introduction
- 1.1 History, Origin and Distribution of Cowpea
- 1.2 Economic Importance of Cowpea in Nigeria
- 1.3 Statement of Problem
- 1.4 Objective of the Study
- 1.5 Justification
- 1.6 Research Questions

CHAPTER TWO

- 2.0 LITERATURE REVIEW
- 2.1 Introduction
- 2.2 Definition of Terminologies
- 2.3 Cowpea Marketing
- 2.4 Direct versus Indirect Marketing Channels
- 2.5 International Marketing Channel Choices
- 2.6 Factors That Affect Market Participation Decisions
- 2.7 Wholesaler
- 2.8 Retailer
- 2.9 Processors and Manufacturers

CHAPTER THREE

- 3.0 Methodology
- 3.1 The Study Area
- 3.2 Source of Data

- 3.2.1 Primary Sources
- 3.2.2 Secondary Sources
- 3.3 Sampling Techniques
- 3.3 Measurement of Variables

CHAPTER FOUR

- 4.0 The Interpretation of Data (Data Analysis)

CHAPTER FIVE

- 5.1 Summary
- 5.2 Conclusion
- 5.3 Recommendation

Reference

Questionnaire

CHAPTER ONE

1.0 Introduction

1.1 History, Origin and Distribution of Cowpea

Cowpea (*Vigna unguiculata* L. Walp.) is a member of the Phaseoleae tribe of the Leguminosae family. Members of the Phaseoleae include many of the economically important warm season grain and oilseed legumes, such as soybean (*Glycine max*), common bean (*Phaseolus vulgaris*), and mungbean (*Vigna radiata*). The name cowpea probably originated from the fact that the plant was an important source of hay for cows in the southeastern United States and in other parts of the world. Some important local names for cowpea around the world include “niebe,” “wake,” and “ewa” in much of West Africa and “caupi” in Brazil. In the United States, other names used to describe cowpeas include “southernpeas,” “blackeyed peas,” “field peas,” “pinkeyes,” and “crowders.” These names reflect traditional seed and market classes that developed over time in the southern United States.

Cowpea plays a critical role in the lives of millions of people in Africa and other parts of the developing world, where it is a major source of dietary protein that nutritionally complements staple low-protein cereal and tuber crops, and is a valuable and dependable commodity that produces income for farmers and traders (Singh, 2002; Langyintuo et al. 2003). Cowpea is a valuable component of farming systems in many areas because of its ability to restore soil fertility for succeeding cereal crops grown in rotation with it (Carsky et al. 2002; Tarawali et al. 2002;

Sanginga et al. 2003). Early maturing cowpea varieties can provide the first food from the current harvest sooner than any other crop (in as few as 55 d after planting), thereby shortening the "hungry period" that often occurs just prior to harvest of the current season's crop in farming communities in the developing world. Dry grain for human consumption is the most important product of the cowpea plant, but fresh or dried leaves (in many parts of Asia and Africa) (Nielsen et al. 1997; Ahenkora et al. 1998), fresh peas (the southeastern USA and Senegal), and fresh green pods (humid regions of Asia and in the Caribbean) may be the most important in some local situations. Cowpea hay plays a particularly critical role in feeding animals during the dry season in many parts of West Africa (Singh and Tarawali 1997; Tarawali et al. 1997, 2002). Cowpea has considerable adaptation to high temperatures and drought compared to other crop species (Hall et al. 2002; Hall 2004). As much as 1000 kg ha⁻¹ of dry grain has been produced in a Sahelian environment with only 181 mm of rainfall and high evaporative demand (Hall and Patel 1985). Presently available cultivars of other crop species cannot produce significant quantities of grain under these conditions.

The crop is more tolerant of low fertility, due to its high rates of nitrogen fixation (Elawad and Hall 1987), effective symbiosis with mycorrhizae (Kwapata and Hall 1985), and ability to better tolerate soils over a wide range of pH when compared to other popular grain legumes (Fery 1990). Dry grain yields above 7000 kg ha⁻¹ have been achieved in large field plots with guard rows in the southern San Joaquin Valley of California (Sanden 1993), where growers often obtain yields

above 4000 kg ha⁻¹. Clearly, cowpea is both responsive to favorable growing conditions and capable of growing under drought, heat, and other abiotic stresses. Cowpea most certainly evolved in Africa, as wild cowpeas only exist in Africa and Madagascar.

1.2 Economic Importance of Cowpea in Nigeria

Cowpea (*Vigna Unguiculata Walp*) is a very important crop which is grown in many parts of Nigeria. It provides protein to rural as well as the urban dwellers as a substitute for the animal protein. However, cowpea production is generally low as a result of some factor such as diseases and pest, drought, insect pest and weeds (Gungula and Garjila, 2005). Nigeria is the largest producer of cowpea in Africa; Agboola (1979) reported that an average yield of 271.5 kg/ha from the vast area of 3.8 million hectares cultivated to cowpea in Nigeria. In addition Singh and Jackai, (2003) further reported that with the use of improved technologies in cowpea production, yield of 1500-2000 kg/ha can be obtained on sole crops.

According to (Gibbon and Pain 1985), increase in demand for cowpea in the past few decades has led to the cultivation of cowpea as a sole crop in many parts of the country. Similarly in the northern part of Niger State, Cowpea which is used to be grown in mixture with cereals is now being produced as a sole crop. The role of agriculture is to provide adequate output to assure global food security and enhance economic development, nevertheless agricultural development in Nigeria has suffered a lot of setback due to the shift of emphasis and manpower to

above 4000 kg ha⁻¹. Clearly, cowpea is both responsive to favorable growing conditions and capable of growing under drought, heat, and other abiotic stresses. Cowpea most certainly evolved in Africa, as wild cowpeas only exist in Africa and Madagascar.

1.2 Economic Importance of Cowpea in Nigeria

Cowpea (*Vigna Unguiculata Walp*) is a very important crop which is grown in many parts of Nigeria. It provides protein to rural as well as the urban dwellers as a substitute for the animal protein. However, cowpea production is generally low as a result of some factor such as diseases and pest, drought, insect pest and weeds (Gungula and Garjila, 2005). Nigeria is the largest producer of cowpea in Africa; Agboola (1979) reported that an average yield of 271.5 kg/ha from the vast area of 3.8 million hectares cultivated to cowpea in Nigeria. In addition Singh and Jackai, (2003) further reported that with the use of improved technologies in cowpea production, yield of 1500-2000 kg/ha can be obtained on sole crops.

According to (Gibbon and Pain 1985), increase in demand for cowpea in the past few decades has led to the cultivation of cowpea as a sole crop in many parts of the country. Similarly in the northern part of Niger State, Cowpea which is used to be grown in mixture with cereals is now being produced as a sole crop. The role of agriculture is to provide adequate output to assure global food security and enhance economic development, nevertheless agricultural development in Nigeria has suffered a lot of setback due to the shift of emphasis and manpower to

petroleum sector. Priority must be given to small holder farmers because they constitute about 95% of farming household in Nigeria and produce most of the food crops consumed in the country (Adesina, 1991).

Cowpea is a major food crop and is widely grown in Niger state, however, with increasing population over the years, the demand for the crop had gone up but the production has not been increase significantly (Agwu, 2001). This study is therefore to evaluate the profitability and technical efficiency of production of the crop in Chanchaga Local Government Area of Niger State and also identifies the factors affecting the inefficiency in the production process.

1.3 Statement of Problem

Cowpea is one of the most important crops grown. In the state in spite of the relative importance of the crop as far as food crop in the state, there is always a decline in the availability of the market. The production of cowpea in the state has benefited from advances in technology, such as introduction of high yield varieties, application of fertilizers to aid proper growth and production extension services. In spite of all these technological advances, the supply of this product is still relatively low. This could visible in the number of mills working in the study area. This may be due to lack of good marketing chain and channels for easy delivery of products. Since the product is produced by rural farmers, most rural areas lack motorable road, which could have facilitated the movement of produce to the markets. Most cowpea harvested by farmers get bad or spoilt before they are

marketed due to lack of storage facilities and good preservative techniques. This reduces the quality and quantity supplied by farmers to the market. It must be stated that farmers lack market information and in case there is, it is usually irregular in its flow among farmers marketing cowpea. Therefore, the main target of this study is to see how the problem of marketing of cowpea will be corrected and provide farmers with the necessary materials and information on how to go about the problem of cowpea marketing in the Local Government.

1.4 Objective of the Study

The primary objective of this study is to determine the various problems facing cowpea production marketing in Chanchaga Local Government Area of Niger State and to suggest ways through which these problems can be addressed.

However specific objective include:

- i. To determine the marketing channel used in cowpea marketing in Chanchaga Local Government Area of Niger State.
- ii. To examine the roles of middle men, wholesalers and retailers in cowpea marketing in Chanchaga Local Government Area of Niger State.
- iii. To identify the problems of marketing cowpea in Chanchaga Local Government Area of Niger State.
- iv. To suggest solutions to the identified problems.

1.5 Justification

In recent years, price of cowpea has been on increase though production is still on the increase, but the supply in the market is relatively low. This may be attributed to problems in the marketing structure channels as marketing chain. In other words, the lower the price of cowpea the increase in the supply, this project therefore is going to determine the best marketing system of cowpea and its by-products, which will help the farmers to generate more income and increase production.

1.6 Research Questions

- i. What are the problems of marketing cowpea in Chanchaga Local Government Area of Niger State?
- ii. What are the marketing channels used for marketing cowpea in Chanchaga Local Government Area of Niger State?
- iii. What are the roles of middlemen, wholesalers and retailers in cowpea marketing in Chanchaga Local Government Area of Niger State?
- iv. What are the problems facing cowpea production in Chanchaga Local Government Area of Niger State?
- v. What are the solutions to the identified problems?

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter explored literature surrounding producers' marketing channel choices. The selection of distribution channel is affected by many factors which have been studied by researchers in various fields.

The chapter begins by defining the major terminologies in the study, followed by a presentation of different aspects of marketing (such as direct versus indirect marketing channels), international marketing, and market participation decisions. In conclusion, the chapter looks at the determinants of marketing channel selection as identified by researchers in different market sectors and regions

2.2 Definition of Terminologies

A marketing channel (distribution channel) is defined as a set of interdependent organizations that help make a product available for use or consumption by the consumer or business user. Channel intermediaries are firms or individuals such as wholesalers, agents, brokers, or retailers who help move a product from the producer to the consumer or business user (Scribe, 2010). A marketing channel, according to Lake (2007) is an organized network of agencies and institutions which in combination performs all the functions required to link producers with end customers to accomplish the marketing task.

In Agriculture, distribution channels therefore move agricultural products from farmers to consumers and to other businesses and consist of a set of interdependent

organizations such as wholesalers, retailers, and sales agents who are involved in making a product available for use or consumption. The intermediaries in the marketing of agricultural products include all interdependent organizations (firms and individuals) that help move a product from the farmer to the end user.

2.3 Cowpea Marketing

The role of markets in ensuring the efficient distribution of cowpeas has been studied by different researchers in different parts of the world especially in West Africa where cowpeas are an important plant protein source that is used as a substitute for animal protein. In Nigeria, Cowpea is very important for the federal government's strategic food programme such as the strategic grain reserve programme and food aid programme (Adejobi, 2005). There are several actors who participate in the marketing of cowpeas. The key actors in the cowpea marketing chain in Ogun State of Nigeria according to Ayinde (2005) were wholesalers, Drivers, loaders, retail traders, consumers, Restaurant owners, trader associations, local government/agencies and security outfit while those identified by Adejobi (2005) in his study on Cowpea marketing in Maiduguri, Borno State in Nigeria included farmers/ producers, Trans-border farmers, Rural retailers/bulkers, commission agents, urban wholesalers/bulkers, urban retailers, intra-country traders and consumers as other intermediaries. These intermediaries differ in function, distribution and wealth status. According to Faye (2005), producers represented the largest group and sold directly or indirectly to exporters, collectors, wholesalers, processors, retailers and consumers. Collectors were individual entrepreneurs who acted as intermediaries in the market place.

Wholesalers and retailers normally bought cowpeas from the northern part of Nigeria but were willing to buy from local sources provided the local sources met the same requirements as those from the north. The researchers, Adejobi (2005) and Faye (2005) felt that if local cowpea production increased, there was every possibility that marketers could get cowpeas at lower prices and make more money. Therefore with increased market participation, all actors in the cowpea value chain are likely to have increased returns to their sales.

The perception of trader groups found along the cowpea marketing chain in Maiduguri was that cowpea marketing is very profitable except for the urban retailer and the farmer who opined that there was a marginal profit (Adejobi, 2005). He found that the urban wholesalers and intra country traders were found to be very rich while the farmers, trans-border farmers and consumers were not.

2.4 Direct versus Indirect Marketing Channels

In marketing, there are two types of distribution systems that signify two extreme points on a continuum (Ramaseshan, 1993). These are integrated (direct) and independent (indirect) marketing channels. Direct marketing occurs when the producer connects with the end user. The end user may be a consumer or a business. An indirect channel includes one or more marketing intermediaries performing a variety of functions. Each channel member provides value, performs a function and expects an economic return.

In the Nigeria markets, direct channels are more frequently used by smallholder farmers as compared to indirect channels. Most producers sell directly to consumers without passing through market intermediaries. This is the case due to

the low quantities of cowpeas produced as well as the undeveloped state of the cowpea value chain in which few actors are involved in marketing. The low transaction costs involved in direct marketing are also an incentive for small scale farmers. Cowpea, however, just as other agricultural products is likely to be faced by multi-channel markets.

In the direct marketing channel, the choice of marketing channel is limited to the end user who could be consumers or businesses. In the indirect marketing channel, the choice of channel becomes more diverse and the factors to be considered increases. In designing a distribution system, a producer must make a policy choice between selling directly to customers and employing salespeople or using intermediaries i.e. selling through agents, wholesalers and retailers. Initially, the decision is usually based on cost factors. Distribution costs are largely a function of the number of potential customers in the market, how concentrated or dispersed they are, how much each will buy in a given period, and costs associated with the practical side of the distributive operation e.g. transport, warehousing and stockholding (Lanchester, 1990). Producers may choose different combinations of features of the direct and indirect channels that offer optimum solutions to their specific situations. Both extremes of the distribution channel.

Indirect channels were traditionally considered to have more stages in the distribution channel than direct channels (Root, 1964). According to Angelmar and Pras (1984), indirect channels require less investment both in money and management time for manufacturing firms than their direct counterparts. This advantage of indirect channels over direct ones can therefore be utilized by small scale farmers in their marketing of produce. This suggests that cowpea is better

marketed through indirect marketing channels in which many actors are involved thereby necessitating the need for a developed value chain for cowpeas.

2.5 International Marketing Channel Choices

A substantial volume of literature covers various aspects of international marketing channel decisions. The export market is faced with a different array of factors affecting the supplier's choice of marketing channel compared to the local market. In a case where a farmer was exporting his produce, the factors that would influence his choice of marketing channel would be different from those that face producers who do not export. According to Kintu (2007), the factors affecting choices of channels to use in international markets include Overall marketing objectives, Nature of the products, Consumers location and coverage, Channel success factors, Level of Cooperation desired, Channel rights and responsibility and Capital requirement. These factors differ for both large scale and small scale farmers as well as for different crops. Czinkota and Ronkainen (1988) suggested a model called the "Eleven Cs" which explained the channel design that an exporter chose to use. The eleven elements of the model included customer characteristics, culture, competition, company objectives, character, capital, cost, coverage, control, continuity and communication. These two studies both stressed marketing objectives, capital requirement, consumer characteristics, continuity (channel success), communication (level of cooperation) and many market actors is inevitable (Kintu, 2007). The amount of capital required is influenced by factors like transport facilities needed, warehouses, cost of product development, quantity needed etc, consumer characteristics is associated with the consumer's location and coverage while cost affects the profitability of a particular channel. Channel success factors looks at channel experience with the product in the foreign market

reputation of delivering the right products and services, channel competitiveness, channel profitability and continuity while level of cooperation required looks at the degree of control that the supplier desires to have in the channel.

The results of another study by Ramaseshan and Patton in 1993 showed that only two factors significantly distinguish small business exporters using direct channels from those using indirect channels. These factors were volume and service. The results showed that volume was negatively related with vertical integration while service was positively related. This suggests that while numerous factors are considered in choosing any export channel on the distribution channel continuum, only two factors are considered in choosing between the extremes, direct or indirect channels. That is, the more the choices of channels to choose from, the more factors to consider in choosing. The two extremes of eleven factors versus two factors (Czinkota et al, 1988 and Ramaseshan et al, 1993) also suggests that small scale farmers may consider fewer factors in choosing export marketing channels as compared to larger scale farmers.

2.6 Factors That Affect Market Participation Decisions

A study by Jari (2009) suggested that the variables that have a higher probability of shifting households from non-market participation to informal marketing are access to market information in which, for example according to Jagwe (2007), Ownership of radios turned out to be statistically significant in influencing market participation in the banana industry. Other factors included availability of good market infrastructure such as roads and market places, existence of extensive social capital, group participation and guidance from tradition. All of the five variables positively influence informal marketing, implying that households are likely to

shift from non-marketing to informal market participation with an increase in any one of the variables.

Improvement in market access reduces transaction cost hence increasing the profitability of the farm. The results also suggested that, in Kenya, large farmers gain the most from improved market access (Kamara and von Oppen, 1999). The results of a study by Jagwe (2007) showed that larger land sizes also raise the probability of market participation for banana sellers although Most female headed households lacked access to productive assets (land, labor, capital) thereby limiting their production capabilities. Access to off farm income increased the likelihood of banana market participation for buyers. The gender of the head of the household had a significant impact in the market participation decision in which there was a lower likelihood of market participation female headed households. Ownership of radios turned out to be statistically insignificant in influencing market participation.

2.7 Wholesaler

They buy product from the farmer or from the assemblers. A distinguishing attribute of the wholesaler is that he sells in bulk, he sells to retailers, other wholesaler and domestic or foreign markets, manufacturers are rarely consumers. Normally wholesalers perform the function of transportation, storage and sometimes packaging.

2.8 Retailer

They buy in bulk and sell in bits or unit usually directly to the final consumer on a day to day basis. Retailer normally buys from wholesaler.

2.9 Processors and Manufacturers

These are mainly agricultural business firms which takes the action to change form of products example fruits and vegetable canners, flour mills, meat packers are example of the processors and manufacturers and manufacturers may engage in other marketing activities.

CHAPTER THREE

3.0 Methodology

3.1 The Study Area

This study will be conducted in Chanchaga Local Government Area of Niger State. The State came into being on 3rd February, 1976 from the defunct north western state. The state lies between 3^o-20 east and longitude 8^o and 11^o - 3 North. The state is bordered to the North by Sokoto state, to the North West by Kebbi State to the South by Kogi State to the South West by Kwara State, while Kaduna and Federal Capital Territory border the state to the North East and South East respectively.

Furthermore the state share a common international boundary with the Republic of Benin at Babanna is Borgu Local Government Area of Niger State. The state covers a total land area of 83,266,779 square kilometer or about 8.3 million hectares which 8% of the land is arable.

About 85% of the state population are farmers while the remaining 15% engage in other vocations such as white collar jobs, manufacturing, business etc. the population of the state according to 2006 census figure was about 3,905,249 (NPC2006). Niger State is referred to as the "Power State" of the nation because it houses three hydroelectric power. They are Shiroro hydroelectric power station, Kainji generating plant and Jebba Hydro electric dam. The area where this research study will be conducted is Chanchaga Local Government Area of Niger State.

The typical climate of the middle belt zone of Nigeria is a good reflection of Chanchaga Local Government Area climate, with rain season settle around April and last till October with mean annual rainfall of 1334mm September, recording the highest in March at 300mm. The mean monthly temperature is highest is March 30.500c (850f) of lowest August at 22030c (720f).

Chanchaga Local Government Area is divided into eleven (11) wards namely: Minna Central, Minna South, Limawa 'A', Limawa 'B', Makera, Nassarawa 'A', Nassarawa 'B', Sabon Gari, Tudun Wada South, Tudun Wada North, Nassarawa 'C'. According to the 2006 Census the population figure of the Local Government is Male - 105263, Female - 96886, major languages of the population of the Local Government are Gwari, Nupe, Yoruba and Igbo.

3.2 Source of Data

The data are obtained through primary and secondary sources.

3.2.1 Primary Sources

Data were obtained through the use of personal observation, interview schedule, using structured questionnaires which was administered to individual farmers.

3.2.2 Secondary Sources

Data were obtained from previous relevant published materials such as text book, conference papers, pamphlets, lecture notes, journals and magazines.

3.3 Sampling Techniques

The sampling procedure that will be used in this research work is the random sampling technique. This is to capture a good number of small scale farmers who from year to year cultivate cowpea on their farm from Chanchaga Local Government Area of Niger State.

3.3 Measurement of Variables

The socio-economic characteristics of the farmers include: age of the farmer, his farm size, educational attainment, household size, marketing strategy, price determinant farming experience. The age of the farmer is going to be measured by asking the farmer at the time of survey what their age is and their level of education that is what level of formal education the farmers had, their household sizes that is the number of people that depend on them for livelihood.

CHAPTER FOUR

4.0 The Interpretation of Data (Data Analysis)

100 structured questionnaire were distributed to cowpea farmers in Chanchaga Local Government and out of the 100 questionnaire we were able to retrieve 85 back from the respondents but only 80 was usable as the remain five questionnaires were not properly filled by the respondents, the data derived from the questionnaires are interpreted as follows below.

4.1 Table 4.1 Distribution of the Respondents according to their age

Age (years)	Number of Respondents	Percentage (%)
Less than 30	13	16.25
30 - 40	27	33.75
41 - 50	29	36.25
51 - 60	11	13.75
Above 60	-	-
Total	80	100

Source: Field survey data

From the above table 4.1, showed that 16.25% of cowpea farmers falls between the age range of less than 30 years, about 33.75% of them falls between 30 - 40 years and 36.25% of the cowpea farmers falls between the range of 41-50 years of age. While, 13.75% of the cowpea farmers where between the range of 51-60 years of age. It was observed that about 86% of the farmers are still within their active age group which is less than or equals to 50 years of age.

4.2 Table 4.2 Distribution of the Respondents according to their Gender

Sex	Number of Respondents	Percentage (%)
Male	70	87.5
Female	10	12.5
Total	80	100

Source: Field survey data

Table 4.2 reveals that the gender distribution of the respondents and shows most of the cowpea farmers in the study areas are males with 87.5% since only 12.5% of the respondents were female.

4.3 Table 4.3 Distribution of the Respondents according to their Marital Status

Marital Status	Number of Respondents	Percentage (%)
Single	11	13.75
Married	69	86.25
Total	80	100

Source: Field survey data

Table 4.3 shows that 86.25% of cowpea farmers were married while only 13.75% of them were single. This definitely has positive effect on the production activities of the respondents, as there will be more hands and contribution to production functions and hence more returns accruing.

4.4 Table 4.4 Distribution of the Respondents according to their Educational Level

Level of Education	Number of Respondents	Percentage (%)
Illiterate	-	-
Adult Education	6	7.5
Primary	-	-
Secondary	14	17.5
Tertiary	60	75
Qur'anic only	-	-
Total	80	100

Source: Field survey data

From the table 4.4 shows only 7.5% of the respondents have adult education training. Therefore about 75% has formal education to tertiary education. While only 17.5% have secondary level education. This of course, may probably have a positive correlation with the production activities of the cowpea farmers in the study areas, as they will be able to respond quickly to any changes in technology and as well as facilitate absorption of new production information of any form, be it printed media posters and so on.

4.5 **Table 4.5 Distribution of the Respondents according to Production experience of cowpea**

Production Experience (years)	Number of Respondents	Percentage (%)
1 - 10	50	62.5
11 - 20	28	35
21 - 30	2	2.5
31 and above	-	-
Total	80	100

Source: Field survey data

Table 4.5, shows that about 62.5% of the respondents had 1 - 10 years of experience. About 35% of the respondents had 11 - 20 years of experience. And only 2.5% had 21 - 30 years experience.

From the table, it shows that the model class distribution were 1 -20 years which constitute about 97.5% of the total number sampled.

4.6 **Table 4.6 Distribution of the Respondents according to the problems in Production (Cowpea)**

Respondents	Number of Respondents	Percentage (%)
Yes	70	90%
No	10	10%
Total	80	100

Source: Field survey data

From the table 4.6, it shows that 70 respondents representing 90% face problems while producing cowpea while 10% say they don't face problems, the table shows that most cowpea producers do face problems in producing the product.

4.7 Table 4.7 Distribution of the Respondents according to their farm size

Farm Size in Hectares	Number of Respondents	Percentage (%)
One Hectare	38	47.5
Two Hectare	10	12.5
Three Hectare	28	35
Four Hectare	4	5
Total	80	100

Source: Field survey data

From the table 4.7 reveals that 47.5% of the respondents cultivate cowpea on One Hectare of Land, 12.5% cultivate cowpea on two hectare of land, while 35% of the respondents cultivate cowpea on three hectare and only 5% cultivate cowpea on four hectare, the implication of this is that the cultivation of cowpea is still predominantly low as the output of cowpea from these farm would not be very high especially where the farmers are using one or two hectares of land which constitute 60% of the respondent.

4.8 **Table 4.8 Distribution of the Respondents according to Storage Facilities (Rhombus, Silos, Store House)**

Storage	Number of Respondents	Percentage (%)
Rhombus	50	62.5
Silos	22	27.5
Store House	8	10
Total	80	100

Source: Field survey data

From the above table 4.8 shows that 62.5% of the respondents store their cultivated product in Rhombus while 27.5% store theirs in silos and 10% of the respondents store their produce in store house. This shows that most of the cultivate crop (cowpea) are stored in rhombus by farmers which account for 62.5%.

4.9 **Table 4.9 Distribution of the Respondents according to Implements used**

Implement	Number of Respondents	Percentage (%)
Simple farm tools	74	92.3
Mechanized	6	7.7
Total	80	100

Source: Field survey data

From the above table 4.9 which shows that 92% of the respondents use simple farm tools like hoe, cutlass and rake in the cultivation of their crop while 7.7% of the respondents use mechanized farming method. This shows that the farmers are yet to embrace the mechanized farming system properly due to one limitation or the other the most being capital.

4.10 Table 4.10 Distribution of the Respondents according to problem of weed

Weed	Number of Respondents	Percentage (%)
Yes	74	92.3
No	6	7.7
Total	80	100

Source: Field survey data

Table 4.10 shows that 92.3% of the respondents face problem from weed while cultivating their crop while 7.7% of the respondents say they don't. This shows that majority of cowpea farmers face problems of weed infestation while cultivating their crop which leads to higher cost of production.

4.11 Table 4.11 Distribution of the Respondents according to farm accessibility to market by road transport (vgood, good,poor,vp,)

Road Transport	Number of Respondents	Percentage (%)
Very Good	24	30
Good	28	35
Poor	22	27.5
Very Poor	6	7.5
Total	80	100

Source: Field survey data

From the table 4.11 above, it shows that 30% of the respondents have a very good access to road transport from their farms. While 35% have a good access through road to their farm. 27.5% of the respondents have a poor road to access to the

market from their farm and only 6% of the respondents have a very poor road to access to the market from their farm.

4.12 Table 4.12 Distribution of the Respondents according to problems faced while marketing their produce

Problems	Number of Respondents	Percentage (%)
Middlemen	30	37.5
Different Measuring Device	28	35
Transportation	22	27.5
Total	80	100

Source: Field survey data

From the table 4.12 shows that 37.5% of the face the problems of middlemen while marketing their produce, middlemen have a way of driving up the price of commodity in the market place; 35% of the respondents face problems of different measuring device when marketing, when there is different measuring device it is hard to farmers to determine how much to sell their produce because price assumption will differ from farmer to farmer hence make it hard for there to be a universal price and 22% of the respondents face the problem of transportation while marketing, transportation is a very vital aspect of marketing and if a farmer isn't able to transport his produce to the market then it's either he consumes the produce or the produce get infested by pest and for farmers who produce to sell they can't consume all that which they produce, hence the need for effective transport system.

4.13 Table 4.13 Distribution of the Respondents according to How they sell their product

Measurement	Number of Respondents	Percentage (%)
Mudus	30	37.5
Bags	50	62.5
Total	80	100

Source: Field survey data

From the table 4.13 shows that 37.5% of the respondents sell theirs in Mudus and 62.5% of the respondents sell in bags. For the farmers who sell their cowpea in mudus they are predominantly selling it directly to the final consumer but occasional also sell to wholesaler and retailers while those who sell in bags predominantly sell to wholesalers and retailers.

4.14 Table 4.14 Distribution of the Respondents according to price determinant

Price Determinant	Number of Respondents	Percentage (%)
Price other sell	15	18.75
Association	20	25
Bargaining ability of customer	10	12.5
Transportation and other cost	35	43.75
Total	80	100

Source: Field survey data

From the table 4.14 shows that 18.75% of the respondents determine the price to sell their produce according to how other farmers sell theirs, 25% of the farmers determine the price to sell the product by the instruction given to them by their association, 12.5% of the respondent determine their price on how well the customer can bargain while 35% of the respondent determine the price to sell their product by calculating the cost of production and transportation of the product. This shows that there is no universal price of selling.

CHAPTER FIVE

5.0 SUMMARY OF FINDING, CONCLSUION AND RECOMMENDATION

5.1 Summary

Based on this research with was identify that most of the farmers practice agriculture on a subsistence basis, the land they use in cultivation is usually inherited from their parents and the farmers face some major challenges in term of production due to the prevalence of weed, expensive planting materials and problems while marketing the products due to the activities of middlemen.

5.2 Conclusion

Cowpea is a very import and useful crop that is widely consumed. It is clear that, majority of people always use cowpea in high demand. Therefore the continued and improved production of cowpea should be encouraged by the governments and the marketing of same be standardized, this can be done by the following recommendation proffer in this study with a view of improving the living standard of farmers and to enhance the yield of cowpea.

5.3 Recommendation

At the end of the research project, the following recommendation have been put forward to improve the production and marketing of cowpea There should be adequate and pesticides and herbicides, as well as reliable source of water supply to the farm to enhance proper growth and development of the cowpea.

Government or research institute should provide adequate extension services or agents to the rural areas or peasant farmers to inform and enlighten them on the improved method of cultivating cowpea. Government should watch and check the

activities of middlemen as it drives up the price of cowpea in favour of the middlemen not the farmer themselves.

Agricultural banks like Nigerian Agricultural and Cooperative Bank (NACB) should make loan available and affordable to peasant farmer so they can have the chance to break vicious cycle of production.

REFERENCES

- Adejobi, A.O. 2005. *Cowpea Marketing in Maiduguri, Borno State, Department of Agricultural Economics, Obafemi Awolowo University, Nigeria.*
- Agboola, S.A (1979). *An Agricultural Atlas of Nigeria, Oxford University Press, London. pp 95-97.*
- Agwu, A.E (2001). *Commercialization of agricultural extension services deliver in Nigeria. Prospects and problems proceeding of the seventh annual national conference of the agricultural extension society of Nigeria.*
- Ahenkora K, Adu-Dapaah HK, Agyemang A (1998) *Selected nutritional components and sensory attributes of cowpea (Vigna unguiculata [L.] Walp.) leaves. Plant Foods Hum Nutr 52:221-229*
- Angelmar, R and B, Pras. 1984. *Product Acceptance by Middlemen in Export Channels. Journal of Business Research, vol 12, pp.227-240*
- Carsky RJ, Vanlauwe B, Lyasse O (2002) *Cowpea rotation as a resource management technology for cereal-based systems in the savannas of West Africa. In: Fatokun CA, Tarawali SA, Singh BB, Kormawa PM, Tamo M (eds) Challenges and Opportunities for Enhancing Sustainable Cowpea Production. International Institute of Tropical Agriculture, Ibadan, Nigeria, pp 252-266*
- Czinkota, M. and I.A, Ronkainen. 1988. *International Marketing, the Dryden Press, Fort Worth, TX.*
- Elawad HOA, Hall AE (1987) *Influences of early and late nitrogen fertilization on yield and nitrogen fixation of cowpea under well-watered and dry field conditions. Field Crops Res 15:229-244*
- Fery RL (1990) *The cowpea: production, utilization, and research in the United States. Hort Rev 12:197-222*
- Gibbon, D and Pain, A (1985). *crops of the drier regions of the tropics. Longman Group. Singapore pp. 111-112.*
- Gungula, D.T and Garjila, Y (2005). *The effects of phosphorus application on growth and yield of cowpea in yola. Journal of Sustainable Development in Agriculture Environment 1(1).*

- Hall AE, Patel PN (1985) Breeding for resistance to drought and heat. In: Singh SR, Rachie KO (eds) *Cowpea Research, Production and Utilization*. Wiley, New York, pp 137-151
- Hall AE, Singh BB, Ehlers JD (1997) Cowpea breeding. *Plant Breed Rev* 15:215-274
- Hall AE, Ismail AM, Ehlers JD, Marfo KO, Cisse N, Thiaw S, Close TJ (2002) Breeding cowpeas for tolerance to temperature extremes and adaptation to drought. In: Fatokun CA, Tarawali SA, Singh BB, Kormawa PM, Tamo M (eds) *Challenges and Opportunities for Enhancing Sustainable Cowpea Production*. International Institute of Tropical Agriculture, Ibadan, Nigeria, pp 14-21
- Jagwe, J., E, Ouma and C, Machehe. 2007. *Transaction Costs and Smallholder Farmers Participation in Banana Markets in the Great Lakes Region*, Pretoria, South Africa.
- Kintu, A.B. 2007. *Factors Affecting Choices of Channels to Use in International Markets*. B. Comm. Marketing (Hons) Makerere University.
- Kwapata MB, Hall AE (1985) Effects of moisture regime and phosphorus on mycorrhizal infection, nutrient uptake, and growth of cowpeas [*Vigna unguiculata* (L.) Walp.]. *Field Crops Res* 12:241-250
- Lake, L. Marketing Distribution. Available at
<http://marketing.about.com/mbiopage.htm>
- M.P. Timko et al. *Agricultural Sciences (JIRCAS)*. Sayce, Devon, UK, pp 313-325
- Nielson SS, Ohler TA, Mitchell CA (1997) Cowpea leaves for human consumption: production, utilization, and nutrient composition. In: Singh BB, Mohan Raj DR, Dashiell KE, Jackai LEN (eds) *Advances in Cowpea Research*. Copublication of International Institute of Tropical Agriculture (IITA) and Japan International Research Center for Agricultural Sciences (JIRCAS). Sayce, Devon, UK, pp 326-332
- Ramaseshan, B and A. P, Mark. 1993. *Factors Affecting International Channel Choice of Small Business Exporters*. Curtin University of Technology, Perth, Western Australia.
- Root, F. 1964. *Strategic Planning for Export Marketing*, Einar Harcks Forlag, Copenhagen.

- Sanden B (1993) Blackeye varietal and irrigation cutoff trial. In: *University of California Dry Bean Research - 1993*, Progr Rep California Dry Bean Advisory Board, Dinuba, CA, pp 120-121
- Sanginga N, Dashiell KE, Diels J, Vanlauwe B, Lyasse O, Carsky RJ, Tarawali S, Asafo-Adjei B, Menkir A, Schulz S, Singh BB, Chikoye D, Keatinge D, Ortiz R (2003) Sustainable resource management coupled to resilient germplasm to provide new intensive cereal-grain-legume-livestock systems in the dry savanna. *Agric Ecosyst Environ* 100:305-314
- Singh BB (2002) Recent genetic studies in cowpea. In: *Fatokun CA, Tarawali SA, Singh BB, Kormawa PM, Tamo M*(eds) *Challenges and Opportunities for Enhancing Sustainable Cowpea Production*. International Institute of Tropical Agriculture, Ibadan, Nigeria, pp 3-13
- Singh, S.R and Jakai, E.N (2003). *Insect pest and of cowpea in Africa; Their Life Cycle, Economic Importance and Potential Control*. In Singh,R.S and Rachie,K.O (eds).*Cowpea research production and utilization (CRP1)* John Wiley,S.R and Sons Ltd pp 217-231.
- Tarawali SA, Singh BB, Peters M, Blade SF (1997) *Cowpea haulms as fodder*. In: Singh BB, Mohan Raj DR, Dashiell KE, Jackai LEN (eds) *Advances in Cowpea Research*. Co-publication of International Institute of Tropical Agriculture (IITA)

QUESTIONNAIRE

1. Age of Farmer: _____
2. Gender: () Male () Female
3. Marital Status: () Married () Single
4. Educational Level. () Illiterate, () Adult Education, () Primary, () Secondary, () Tertiary, () Qur'anic only.
5. Farming Experience: () 1 – 10 years, () 11 – 20 years, () 21 – 30 years, () 31 and above
6. Do you face problems during production of Cowpea? () Yes, () No
7. What is your farm size? () 1 hectare, () 2 hectares, () 3 hectares, () 4 hectares
8. What type of storage do you sue to store your cowpea? () Rhombus, () Silos, () Store House
9. Which type of implement do you use in cultivation? () Simple farm tools () Mechanized
10. Do you face problem of weed? () Yes, () No
11. How accessible is your farm my road? () Very Good, () Good, () Poor, () Very Poor
12. What type of problem do you face when marketing your cowpea? () Middlemen, () Different Measuring Device, () Transportation.
13. How do you sell your cowpea? () Mudus, () Bags
14. How do you determine the price you sale your cowpea? () Price other sell, () Association, () Bargaining ability of customer, () Transportation and other cost.