



## **Spatial Effects of Cocoa Production on Rural Economy in Idanre-Ifedore Area, Ondo State of Nigeria**

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**Abstract**

Agriculture has been the main-stay of Nigeria's economy of which cocoa production plays a significant role in the acceleration of the national gross domestic product (GDP), in terms of employment generation, feeding the local industries with raw materials and sustains the rural livelihood until about the mid-1970s that witnessed oil boom resulting in the neglect of the sector coupled with the introduction of structural adjustment programme (SAP) in 1986 that killed the morale of cocoa producers. The cardinal objective of the study was to examine the effects of cocoa industry on the rural livelihoods in Idanre-Ifedore area, Ondo State of Nigeria. Primary data were generated from 80 randomly sampled households in the study area. Also, a focus group discussion was conducted among the communities that were involved in cocoa production. Secondary data were collected from the ministry of agriculture and rural development, cocoa development units, cocoa research institute of Nigeria (CRIN), official gazettes, federal office of statistics and documented materials. The study employed descriptive statistics namely mean, averages and percentages to summarize the data. Also, inferential statistics such as analysis of variance (ANOVA) and regression statistics were employed to analyse the data. It revealed F-test value of 3.85 and a critical value of 2.53 indicates a significant variation in cocoa output at 0.05 probability level among the farmers in the study area. The study examined the relationship between cocoa output and socio-economic traits of the farmers. The regression result showed that age of cocoa farmers ( $r = .825$ ), annual income ( $r = .631$ ), age of cocoa farms ( $r = .755$ ) and cocoa farm size ( $r = .648$ ) have strong positive correlation coefficients while family size ( $r = .385$ ) and cocoa farming experience ( $r = .413$ ) were found to be positive but weak correlation at 0.05 alpha value. On the basis of the findings, one recommends among other things a mass enlightenment campaign at community levels through cocoa research institutes and field extension workers persuading farmers to be planting hybrid disease-resistant cocoa trees to replace the moribund trees. Moreover, government should increase producer price in order to encourage the potential cocoa farmers to put in their best and subsidize the agro-chemicals thereby making it affordable for peasant farmers. By doing so, the country can still assume her rightful position as one of the leading countries as exporter of cocoa in the world.

**Keywords:** Cocoa Production Rural Economy Challenges

## **Introduction**

Cocoa is never a native of Nigeria but introduced from the Amazon forest, South America during the colonial administration. This industrial cash crop contributed in no small measure to the country's economic growth and development. It represents a single-most crop that has significant impact on the Nigerian economy. Agricultural sector plays significant role in developing economies (Eicher and Witt, 1994; Gollin and Rogerson, 2002; Adefila, 2008) remarked that it served as source of basic raw materials for our light industries generates employment and contributes to the gross domestic product (GDP). Nigeria was ranked among the highest cocoa producers in the world as observed by ICCO (2003) that in 1970s cocoa output peaked at 308,000 tonnes but this figure dropped sharply in 1980s to 155,000 tonnes and continually down to 110,000 tonnes by 1990 farming season. The problem persists till present.

Moreover, with the discovery of oil and gas, the contribution of agriculture to the overall economic growth has declined from 70 per cent at independence to about 25 per cent in the mid-1970s (the oil boom period). In spite of this sharp decline, agricultural sector accounts for about 80 per cent of the active labour force (CBN, 2007). In like manner, cocoa industry began to deteriorate. It is obvious that increased productivity in the cocoa industry is paramount to improvement in rural standards of living. Abayomi (2006) noted that it is capable of increasing not only per capita income; reduce spatial inequalities between rural and urban areas, but also to reduce the unprecedented mobility of rural-urban migration. Obviously, this is a phenomenon that often resulted in the stagnation of the rural economy.

Going by memory lane, the colonial policy gave priority to the cultivation of industrial cash crops within the diversified ecological zones in Nigeria. While the production of groundnut and cotton were encouraged in the northern zone, cocoa, palm-produce, rubber and timber were produced in the south. The colonial administration also put in place infrastructural facilities such as construction of roads and railways for easy evacuation of the agricultural

produce from the interior down to the coast for onward shipment to Europe (Cateora and Ghauri, 2000). The marketing of the products was encouraged by establishing the Marketing Boards for the products. In addition, the monetization of the economy in which industrial cash crops could be exchanged for British pounds has encouraged many enterprising farmers to migrate into the cash crop producing areas (Adefila, 2011). This movement accounted for the initial rise in the exporting of agricultural produce. In addition, there emerged a pattern of regional specialization in export trade (Bola, 2007). This true to a large extent, because grain crops are confined to the north, and tree crops to the forest belt in the south.

The noticeable downward trend in the cocoa output generated serious concern among the stakeholders in the cocoa industry along with the federal government hence, the need to organize various forum for various stakeholders to look for a way of improving the productivity, competitiveness, market access to farmers with the purpose of enjoying better bargain for their products and stimulate interest groups within the chain of distribution (Ayorinde, 1996; Enoma, 2001). There was a growing concern for cocoa industry such that a technical committee was established to look into the remote and present causes of the poor cocoa production in the country. Ajao (2006) identified factors such as the failure of the marketing boards to stabilize real income of the cocoa producers, the control measure of shielding the farmers from the fluctuating world prices was seen as disincentive rather than being protective, the destruction of the rubber and cocoa trees during the civil war, the sahelian drought, the ageing of the moribund cocoa trees and of recent, mass migration of young farmers from cocoa fields to the informal urban economic sector. Idowu, et al. (2007) remarked that the ugly situation prompted the military administration to scrap the various marketing boards in 1986. However, many economists consider it as the genesis of jeopardizing the cocoa industry since it allowed illegal marketing of cocoa.

The focus of the present study is on the cocoa production and attendant consequences on the rural economy in Idanre-Ifedore area of Ondo State with the hope of exploring future prospects of this giant industry thus restoring its past glory

as a major contributor to rural socio-economic well-being.

### **Paradigm Shift in Rural Economy**

Going by sectoral approach, agriculture is the dominant economic activity and this explains the reason for most rural development policies and strategies focusing on the development of agriculture. It is around this economic activity (agriculture) that other enterprises such as artisan works, commerce, small-scale industries and tertiary services revolve and probably spring from it. In other words, agriculture is the nucleus, the nerve centre of the rural economies.

It relates to various economic activities that rural people engage themselves as means of livelihood. Essentially elements of rural economies involve the study and analysis of the development, expansion and modernization of agriculture within its rural setting as well as those elements stimulating growth and development (Jibaro, 1992). In addition, rural economies cover cultivation of crops, livestock husbandry, forestry and fisheries. The roles of marketing in the chain of distribution and exchange of agricultural produce between the producer (farmer) and the final consumers (public) cannot be exempted from the rural economic activities. Olayide and Essang (2000) identified the problem of resource utilization with respect to land, labour, capital, water and their prudent management to be within the sphere of rural economies. It is important to include the role of research institutes and related scientific farming methods that influence the introduction and adoption of innovation within the ambit of the rural economies.

Further still, in recent times there are reversal flows of people, goods and services from the urban to rural communities. The rural has been considered as coincided with agriculture but there is spatial re-distribution of non-farm economic activities which can be explained in relation to the process of globalization of the economy (Saraceno, 2005; Adefila, 2011). The declining significance of the rural-urban dichotomy possibly has bearing with rural development policies. In addition, the maintenance of diversified economic activities in rural areas through small-holding farms, co-operative organizations among various

enterprises and independent artisan works, the presence of non-agricultural rural population – all are playing key roles in the process of diversification of rural economy.

### **The Study Area**

It is located between Longitude 5° 00' - 5° 30' east of the Greenwich Meridian and Latitude 6° 20' and 7° 50' north of the Equator. It lies wholly within the Tropics. In the northwest, it shares boundaries with Ekiti Southwest local government area, in the east it is bounded by Akure and Owo local government areas. In the west, it is bounded by Ondo and Ifesowapo local government areas. In terms of spatial coverage, it occupies about 2,000 Sq Km. in area.

The landscape of the study area in most cases is characterized by lowlands, undulating grounds and rugged hills with granitic rock outcrops in many places. The land rises from the coastal area to the rugged hills in the north, among the hills is the Idanre Hill upon which a tourist centre now being built. It is not uncommon to find isolated blocks of high standing but smoothed inselbergs thoroughly polished by agents of denudation in places like Ijabe, Oluji, Igbara-Oke and Ilara areas. The inselbergs sometimes are found in groups.

It enjoyed a tropical climate with distinct dry and wet seasons. The rainy season lasts for more than eight months in the year (April-October) and the annual rainfall total decreases from 2000 millimeters in the southern parts to about 1,150 millimeters in the northern parts. Ayoade (2004) observed that there is variation in the distribution, duration and intensity of rainfall amount from the coastal area to the hinterland. Adegeye (2006) had earlier stated that cocoa trees when attained a height of 37.5 centimeters to 62 centimeters require annual rainfall ranging from 1,125 millimeters to 1,500 millimeters and must spread over eight or nine months and followed a dry period of three or four months to enable the cocoa pods to ripe. This is to assert that the study area has the potentials for cocoa to flourish well. The period of dry season that is, November- March is very important for the fermentation and drying of cocoa seeds. The average temperature of about 35° C enables cocoa pods to ripe quickly and preparation of cocoa beans for sale becomes easier.

Edaphically, the character of the soil profile in the study area is determined largely by the nature of the parent materials. Most of the study area is composed of the great variety of Basement Complex rocks, giving rise to ferruginous soils that have high clay content and of good retentive capacity (Udo, 2001). The determination of whether a particular soil is a product of the underlying or closest parent material is usually based on an inference. But it is obvious that the inselbergs in the area were subjected to various stages of disintegration by agents of denudation and weathering processes thus, the regolith and other weather able minerals were washed down the valley forming extensive layers of alluvial clayey type of soil suitable for the growing of cocoa trees.

The people are mostly Yorubas who traced their origin to Oduduwa, Ile-Ife in Osun State. However, there are many local dialects spoken such as the Ekitis, Akokos, Owos, Ondos, Akures, Ikales and the Ilajes. Other inhabitants in the study area include the Arogbos, and Edos who are not strictly Yorubas but all the languages are understood by nearly all the inhabitants of the area (CDU, 2000). The people live in compact settlements with varying degree of population concentrations such as Owena-Ondo, Idanre, Igbara-Oke, Ijare and Ilara-mokin. A part from these compact settlements, there are numerous farm villages and hamlets with five to ten people living in them say a farmer, his wives and children. The farmsteads are found scattered over the place and their locations are far from the main compact settlement which use to be the farmer's home town. It is usually during important occasions say a Yam Festival, Christmas, New Year, Muslim Sallah and launching occasions that farmers along with wives and children use to come home.

The principal occupation of the people in the study area is farming. Agriculture is the main stay of the economy and means of livelihood. The major industrial cash crops are cocoa, palm produce, Kola-nut and timber. The subsistence food crops include yams, cocoa-yam, cassava, rice, plantain, beans, maize and variety of vegetables.

### **Studies in Cocoa Production**

The country is one of the leading producers and major exporters of cocoa ever before the

discovery of oil and gas. Adegeye (2006) remarked that Nigeria ranked among the five largest producers in the world even though it was produced on a small-scale level and is mainly produced in Ekiti, Ondo, Osun, Oyo and Ogun States. Cocoa production in those areas accounts for about 70% of the country's total production which in quantity amounts to approximately 400 tonnes of the total production in a year. Ajao (2006) identified other cocoa producing States to include Kwara, Kogi, Edo, Delta, Cross-River, Akwa Ibom, Taraba and Adamawa with a total planted areas of 640,000 hectares, and annual output ranging from 250,000 to 320,000 metric tonnes over the last five years.

Obatolu et al. (2003) had earlier remarked that cocoa produced well with minimal but sustained water availability through most of the year. The quantity of cocoa output is largely a function of the climate, soil, topography, diseases, insects and pests. Ajao (2006) highlighted factors militating against cocoa production to include shortage of farm labour, non-availability of essential chemicals and poor access road to cocoa producing areas. Nigeria has two major groups of farmers. Adegeye (2006) identified large scale cocoa farmers and the small scale cocoa farmers. The large scale cocoa farmers devote a higher proportion of their production to generation of income. The farmers usually opt for the creation of large cocoa holding through mobilization of family labour. The major problem facing cocoa production in Nigeria is the acquisition of land for cocoa farming.

In their study (Ajewole and Sadiq, 2010) investigated the effects of climate change on cocoa yield within the cocoa research institute (CRIN) Ibadan and discovered that an optimal temperature of 29° C coupled with a minimal of 900 – 1000 millimetres of annual rainfall are required for cocoa to flourish well. The correlation statistics showed a weak relationship of 0.2196 between temperature and cocoa yield. Also, the study discovered a weak inverse relationship between rainfall and cocoa yield. The result shows that the higher the rainfall the less in cocoa yields.

It is not gainsay that cocoa production is very critical to rural livelihood particularly where cocoa is being produced as it accounts for a high proportion of the household income. Gilbert,

(2000) observed that the real income of the cocoa producers is dependent of the vicissitudes of the world market price of which cocoa marketing board was given the mandate to regulate but failed in this connection and subsequently scrapped in 1986.

The structural adjustment programme (SAP) that was introduced by the military junta had serious effects on cocoa industry. Idowu et al. (2007) examined the impact of market deregulation policies on cocoa production in the South western area of Nigeria and observed that consistent economic downturn affected cocoa production on the aggregate between 1970s and 1980s. The economic recess culminated in the introduction of SAP in 1986 to stem the trend. The study employed both descriptive and regression statistics and discovered that after two decades of SAP coupled with economic liberalization policy, cocoa production confined to the hands of small-holder operators with little application of chemicals to increase annual output. Alimi and Awoyomi (2001) had earlier remarked that the scrap of the cocoa marketing board also encouraged illegal commercial activities which lowered the quality of cocoa standard thus, made Nigeria to become backward in cocoa industry.

In their reports (Michael and Uche, 2011) observed that cocoa problems in Nigeria varies from ageing of farmers, cocoa trees are getting diminishing returns to high costs of chemicals. This is corroborated by (Ajao, 2006) who identified factors limiting cocoa production to include rarity of chemicals, shortage of farm labour, climate change and poor access roads to cocoa producing areas. It is obvious that cocoa farmers and the trees are ageing coupled with the low producer's price - have combined effects on cocoa productivity.

### **Hypotheses (H<sub>0</sub>)**

There is no significant relationship between the socio-economic traits of the farmers and the cocoa output.

There is no significant variation in the annual cocoa production in the study area.

### **Aims and Objectives of the Study**

The overall aim of the study is to assess the effects of cocoa production on the rural

livelihoods in Idanre-Ifedore area of Ondo State. However, the specific objectives of the study are to:-

Assess the socio-economic characteristics of the cocoa farmers in the study area

Examine the relationship between cocoa output and the farmers' socio-economic traits

Examine the spatial variations in cocoa production

Assess the challenges facing cocoa planters in the study area

### **Methodology**

In this section, the types and sources of data, sample size, sampling technique, and methods of data analysis are discussed.

#### **Data Selection**

A large amount of data is required for this study and they include the followings:-

Data on socio-economic characteristics of the cocoa farmers

Data on the factors influencing cocoa production

Data in respect of cocoa output per annum

Data on the challenges facing the cocoa farmers

Data on measures to improve quality and quantity of cocoa production.

#### **Sources of Data**

The study made use of both primary and secondary sources of data. A lot of data were gathered through the administration of structured questionnaire in the study area. In order to check for reliability of the research instrument, it was presented to Agricultural Economists who went through and certified the instrument to be alright. The household constituted the unit of observation. In addition, focus group discussions were conducted among the communities whereupon useful information about the research problem were collected. Besides, secondary data were gathered from the ministry of agriculture and rural development, cocoa development unit, Akure, federal office of statistics (FOS), national

bureau of statistics, Abuja and cocoa research institute of Nigeria (CRIN), Ibadan

**Sample Size and Sampling Technique**

As regards sample size, the study drew a sample of 80 respondents by adopting a purposive random sampling technique. The study covered five major areas namely Idanre, Owena, Igbara-Oke, Ilara-Mokin and Ajagbusi with sample size of (20), (16), (20), (14), and (10) respectively. The sample size is adjudged to be adequate to represent the entire population of each area. It is the households that specialize in the production of cocoa that were selected as part of the sample. The unit of observation is the household. The head of each household is chosen as part of the sample and where the head is absent, the most elderly person within the household is chosen as a sample.

**Methods of Data Analysis**

The study adopted descriptive statistics such as measures of central tendencies to summarize the data into tabular forms of frequencies, averages, mean, and percentages. In addition, inferential statistics such as analysis of variance (ANOVA) and multiple regression analysis were employed to test the null hypotheses. The regression model adopted is stated as:-

$$Y = f(X_i, X_{ii}, X_{iii}, X_{iv}, X_v, X_{vi}, X_{vii} \text{ and } e \dots\dots(I)$$

Where Y = dependent variable  
X = independent variables and e error term

From equation (I) above  

$$Y = f(b_1X_1)+(b_2X_2)+(b_3X_3)+(b_4X_4) \dots\dots\dots+(b_6X_6)+(b_7X_7) + e \dots\dots\dots (II)$$

- Y = Cocoa output in bags (2005 – 2011) per annum
- X<sub>i</sub> = Age of cocoa farmers
- X<sub>ii</sub> = Age of cocoa farms
- X<sub>iii</sub> = Family size
- X<sub>iv</sub> = Income from cocoa per annum
- X<sub>v</sub> = Cocoa farming experience
- X<sub>vi</sub> = Cocoa output in bags per annum
- X<sub>vii</sub> = Size of cocoa farms
- b<sub>1</sub> – b<sub>7</sub> = coefficient of regression and e = error term

**Data Analysis and Discussion**

In this section, the data collected from field are being analyzed in order to bring out the results clearly.

**Socio-economic Characteristics of the Cocoa Farmers**

The analysis of socio-economic traits of the respondents in the study area is presented in Table 1. A cursory glance at the age-group of the cocoa farmers, the result shows that majority fell within the age-group of over 46 years and this constitutes 51.3% of the respondents. This result corroborates with Michael and Uche (2011) that the major problem of cocoa farmers is that they were 60 years old. In other words they are at the retiring age.

**Table 1: Socio-economic Traits of the Cocoa Farmers**

S/No	Variables	Frequency	%
<b>i</b>	<b>Age-group</b>		
	0-15	5	6.2
	16-30	12	15.0
	31-45	22	27.5
	Over 46years	41	51.3
<b>ii</b>	<b>Age of cocoa Farms</b>		
	0-10	13	16.2
	11-20	11	13.8
	21-30	35	43.8
	Over 31 years	21	26.2
<b>iii</b>	<b>Family size</b>		
	0-3	5	6.3
	4-6	38	47.5
	7-9	33	41.2
	Over 10	4	5.0

iv	<b>Income from cocoa per annum</b>		
	#0-100,000	9	11.2
	#101,000-200,000	8	10.0
	#201,000-300,000	34	42.5
	#301,000-400,000	6	7.5
	Over #400,000	23	28.8
v	<b>Cocoa farming experience</b>		
	0-10 years	7	8.8
	11-20	20	25.0
	21-30	43	53.7
	Over 31	10	12.5
vi	<b>Cocoa output per annum (bags)</b>		
	0-10	12	15.0
	11-20	23	28.8
	21-30	25	31.2
	Over 31	20	25.0
vii	<b>Size of cocoa farms (hectares)</b>		
	0-5	24	30
	6-10	31	38.7
	11-15	19	23.8
	Over 16	6	7.5

Source: Author

The respondents that were within the age-group of 31-45 years are (27.5%) of the respondents. The age-group of 16-30 that could be regarded as able-bodied men constitute about (15.0%) of the sampled population in the study area. In comparison, this is smaller than the older aged group in the study area.

Considering the age of cocoa farms, the study shows that almost a half of the cocoa trees fell within the age-group of 21-30 and this is about (43.8%) of the respondents. This result also confirmed the findings of Ajao (2006) that one of the factors limiting cocoa production is the ageing of cocoa trees and that farmers entertained fears of cutting down the moribund cocoa trees in favour of hybrid cocoa trees. This is strictly followed by over 31 years old with a percentage of (26.2%). If one has to combine the two older groups together it gives about (70%) of the respondents on the ageing of cocoa farms.

The study investigated the family size of the cocoa farmers and it shows that majority are within 4-6 persons per family which is only (47.5%) of the respondents. It is closed to 7-9 family size constituting about (41.2%). If the two high ranking family sizes are put together, then it could give rise to about (88.7%). It is obvious that in cocoa industry, more labour is required for weeding, planting, spraying, harvesting and preparing cocoa beans for sale. It is labour

intensive such that the members of the family often constitute the labour force.

The annual income from cocoa was investigated and discovered that close to half of the respondents earned about #201,000-300,000 and this constitutes (42.5%) of the sampled population. The other level of earning is over #400,000 per annum with a percentage of (28.8%). The lowest earning recorded is below #100,000 which is about (11.2%). With the inflation situation in the country, one can adjudged that cocoa farmers in the study area are not earning enough from cocoa as one would expect. Ettah et al. (2011) had earlier traced the problem to foreign exchange rate fluctuations coupled with government policies of structural adjustment programme (SAP) and economic liberalization as observed by (Idowu et al., 2007) had profound influence on the marketability of cocoa thereby having direct bearing on cocoa producers' price.

On cocoa farming experience, the respondents have varying degrees of experience in cocoa preparation but majority fell within a range of 21-30 and it constitutes about (53.7%) of the sampled population. The group with 11-20 years of experience are about (25.0%). The farmers with over 31 years in cocoa business are (12.5%) while the least experienced constitutes about (8.8%). One could remark that cocoa farmers in



the study area possess a high degree of knowledge in cocoa practices thus; training and re-training should be allowed.

The investigated the annual cocoa production in the study area and the result showed that the range of cocoa output also varies from individual households but majority produced 21-30 bags per annum and this is just (31.2%) of the respondents while 11-20 bags are produced by (28.8%) of the cocoa farmers. The farmers that produced the highest say, 31 bags and above are (25.0%) and the least is below 10 bags of cocoa representing (15.0%). The performance of cocoa planters in this regard is not a surprise because they are producing at relatively small-size land holdings that cannot encourage production at commercial quantities. Idowu et al. (2007) had earlier remarked that government deregulation policy had influence on cocoa industry in that it made production to be confined to small-holder operators with little application of chemicals to increase cocoa output.

The size of cocoa farms is investigated in the study area. The result shows that those farmers with 6-10 hectares of land are (38.7%) while those with less than 5 hectares are (30.0%). When the two categories are put together it gives rise to (68.7%). The farmers with over 16 hectares of land are (7.5%). This is rather too small and it suggests that cocoa production is still at subsistence level where majority of cocoa production is consumed within the domestic market. The country should aim at large-scale production.

**Table 2: Challenges of Cocoa Production**

Constraints	Frequency	%
Shortage of farm labour	18	22.5
Rarity and high cost of agro-chemicals	12	15.0
Low producers' price	40	50.0
Poor access to cocoa producing areas	2	2.5
Government policies	8	10.0

A glance at Table 2, it becomes obvious that major constraints to cocoa production in the study area is the low producers' price which accounts for about (50.0%) of the sampled population. The deregulation policies coupled with the scrapping of the cocoa marketing board essentially compounds the problem of cocoa producers in that cocoa market was left entirely in the hands of illegal traders thereby confined the cocoa production into the hands of small-

**Result of Analysis of Variance (ANOVA)**

The study investigated the spatial variation in cocoa output within a period of 2005-2010 in the study area and it is discovered that the F-test of 3.85 was greater than the critical value of 2.53 at 0.05 probability level. The null hypothesis ( $H_0$ ) stated earlier is thereby rejected hence, there is a significant variation in annual cocoa output in the study area.

**Result of Regression Analysis**

One examined the relationship between the annual cocoa output and farmers' socio-economic traits in the study area and discovered that all the variables are positively and significantly correlated with cocoa output at 0.05 significant levels. The age of cocoa farmers (Xi) has a positive and strong correlation coefficient of ( $r = .825$ ), age of cocoa farms (Xii) with a coefficient of ( $r = .755$ ), the annual income (Xiv) has a coefficient of ( $r = .631$ ) and size of farmland holdings (Xvii) with a coefficient of ( $r = .648$ ). However, family size (Xiii) and farmers' experience in cocoa production (Xv) have positive but weak correlation coefficients of ( $r = .835$ ) and ( $r = .413$ ) respectively.

**Challenges Facing Cocoa Farmers**

There are varying degrees of challenges confronting the cocoa producers in the study area and this is examined. The result is presented in Table 2.

holdings (Idowu et al., 2007). The ugly situation led to abandonment of cocoa farms.

Parallel to above is the problem of shortage of farm labour which accounts for about (22.5%) of the respondents. It is not a gain say that cocoa production in Nigeria and in most developing countries is still labour intensive. The farmer and members of the family often constitutes the labour force which is grossly inadequate as

observed by (Ajao, 2006) for cocoa farming operations. But the problem is compounded where the young able-bodied men and women particularly the school leavers at all educational levels are not interested in farming coupled with unattractive rural environment thereby resorting to migration in few urban centres in search of white-collar jobs that are not readily available. Perhaps the most disturbing problem is the rarity and high cost of agro-chemicals such as fungicides, insecticides, fertilizers, herbicides and other farm inputs such as cocoa hybrid seedlings, and praying machines. The point is that the agro-chemicals are just too costly and sometimes beyond the reach of peasant cocoa farmers (Akanji and Ukeje, 2005). The cost from the factory is on the average bearable but due to many intermediaries before it gets to the final consumers that is, the farmers at the village level, the price has almost tripled thereby making it impossible for poor farmers to access the chemicals.

The problem of government policies is identified by the respondents. Some (10%) of the farmers expressed their feelings about government contribution to cocoa problem and it is centred on the inconsistency of policies following instability of government in power. Essentially, successive governments before Obasanjo's regime did not give adequate attention to the problem facing cocoa industry in the country but largely focused on the development of oil and gas sector (Ojo, 2004) and which has affected cocoa industry to a large extent.

### **Recommendations**

A reasonable amount of information are contained in this study which can be harnessed towards policy formulation with a view to enhancing cocoa industry to regain its past glory in this country. In the first place, there should be enlightenment campaign at the community levels through the cocoa research institute of Nigeria (CRIN) along with the field extension workers to embark upon persuasion and encouraging the cocoa farmers to adopt new innovations such as planting the hybrid disease resistant cocoa trees and replacing them with the old moribund trees. Although the exercise is painful, it will in the long-run assist in boosting cocoa productivity and increase the socio-economic status of the farmers.

There is little one can do with the issue of climate change that usher in the global warming having devastating effects on the cocoa industry in recent years. However, the farmers should be prepared to meet the challenges by introducing coping and mitigating strategies towards combating the menace of the changes in weather and climate. The annual increase in rainfall resulting in decaying of cocoa pods called black pod disease can be addressed by spraying fungicides and insecticides on the cocoa pods early enough (Agboola, 2009). This is where governments should subsidize agro-chemicals such that they could be made affordable and accessible to peasant cocoa farmers at the village level.

The producers' income in the study area could not justify the amount of efforts they put into the production of cocoa beans for sale. The situation is quite deplorable since the abject poverty is still ravaging on the rural people. Since the cocoa marketing boards have scrapped, the federal government should come out with alternative approach rather than leaving the cocoa market into the hands of illegal marketers. The fixing of cocoa price each year should be high in favour of the cocoa farmers such that they could earn a substantial amount of money from their hard labour. By doing so, it will encourage youngsters to move into cocoa industry thereby increasing the supply of labour.

It is important that we improve the infrastructural facilities particularly access road to the cocoa producing areas. This is generally in poor condition. The roads are dead-traps where they exist especially during the rainy season. In production process, transportation plays a vital role in the evacuation, distribution, and marketing of farm produce until they get to the final consumers. In this regard, road network is necessarily to be constructed to link production and collection centres.

### **Conclusion**

The cocoa industry has suffered a considerable setback over the years and failed to contribute significantly to foreign exchange earnings neither can it boost the socio-economic condition of the cocoa farmers at the rural community level. The principal causal factor is the shifting direction to the exploration of oil and gas which got to the apex four decades ago. Of recent, there

emerged popular opinions on the danger of mono-economy as a nation and come to realise the need to diversify the economy with a view to explore the solid minerals as well as resuscitating the agricultural sector particularly the cocoa industry.

Obviously, the national cocoa development committee (NCDC) established by the immediate past administration in the country could be remarked as a giant stride forward towards achieving the desired goals of increasing cocoa production substantially, improve cocoa farmers' income, and diversifying foreign exchange earnings (Ajao, 2006). Be as it may seem, there is danger in changing agricultural policies sequel to instability of government in power. In other words, there should be consistency in policies as they affect cocoa productivity. The technical committee in collaboration with the federal ministry of agriculture and rural development, the cocoa research institute of Nigeria (CRIN) and the field extension workers should evolve workable institutional framework geared towards promoting the development of cocoa industry.

It is strongly believed that if government is serious at boosting cocoa production and increase the condition of living of the cocoa planters, the physical, capital and human resources on ground can complement government efforts towards restoring the nation's past glory as one of the leading producers and exporters of cocoa in the world.

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