

COCOA PRODUCTION PATTERN IN NIGERIA: THE MISSING LINK IN REGIONAL AGRO-ECONOMIC DEVELOPMENT

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Abstract: Pre-independent in Nigeria, cocoa was one of the main source of revenue but lost its glory to the discovery, exploration and exploitation of crude oil, especially from the 70s onwards. Despite the rapid growth in its production and positive impact in the nation's economy, cocoa production has been witnessing drastic reduction when compared with percentage of population involving in agriculture since the discovery of crude oil in commercial quantity in Nigeria. This paper reviews the trend pattern of cocoa production and its place in Nigerian economy from pre-1970 up to 2012. It was discovered that most of the cocoa plantations were old and majority of proposed cocoa processing factories were not functioning. The study recommends equilibrium practice of cocoa production and internal processing, establishment of cocoa processing factories through public-private partnership in cocoa producing states.

Key words: Cocoa, export, production, processing, trend

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INTRODUCTION

Cocoa is produced by comparatively few countries; all of them tropical, but the product is processed and consumed mainly in temperate countries (Asiedu, 1989). Eclipsed these days by oil as the country's major export, Nigeria still produces 300-350 metric tons of cocoa a year, most destined for consumption abroad – the country exports about 96% of its cocoa crop. Cocoa (*Theobroma cacao*) is a major economic tree crop in Nigeria because it provides jobs and income to the farmers, raw materials for industries and foreign exchange for the country. Between 1950 and 1960, cocoa was the highest source of foreign exchange in the country. The discovery of oil in 1970, coupled with other socio-economic factors led to the relegation of cocoa to the second position in terms of foreign exchange earnings for the country. Since then, the oil sector has been at the centre of the Nigerian economy with attendant poverty, unemployment and a weak industrial base.

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Nigeria is the fourth-largest producer of cocoa beans in the world behind Côte d'Ivoire, Ghana and Indonesia. After petroleum, cocoa is the country's most important agricultural export product. Fourteen of Nigeria's 36 states grow cocoa of which more than 80% are from southwest geopolitical zone. Inability of the Nigerian farmers to produce cocoa like Ghana and Côte d'Ivoire are attributed mainly to loss of soil fertility, world price fluctuation, aging plantation, and negligence of agriculture in favour of crude oil by government. Since 70s, crude oil has remained the highest source of foreign exchange earnings while cocoa, a versatile, renewable and sustainable source of revenue is yet to reclaim its lost glory. Also, cocoa production in Nigeria is retarded by declining productivity of the existing old cocoa trees. Cocoa production in Nigeria is undertaken mostly by poor, small scale and low technical farmers that neither use fertilizer nor manure for soil fertility improvement. These farmers therefore face difficulties in setting up new cocoa farms and rehabilitation of old ones. This paper aims at examining cocoa production trend within the period of twenty (25) and factors militating against the production fluctuation over the years.

COCOA PRODUCTION AND NIGERIA ECONOMY

In the 1960s, the agricultural sector was the most important in terms of contributions to domestic production, employment and foreign exchange earnings. The situation remained almost the same three decades later with the exception that it is no longer the principal foreign exchange earners, a role now being played by oil. Before the discovery of crude oil in Nigeria, major agricultural products such as palm oil, rubber and cocoa (from the South, West and East); groundnut and cotton (from the North) played prominent roles in the growth, development and stability of the nation's economy. Even, Nigeria was once the second leading producer of cocoa in West Africa and palm oil globally. During this period, cocoa ranked the first Nigeria foreign exchange commodity. The issue of unemployment is the product born out of the negligence of the agricultural sector for crude oil exploration and exploitation. In pre-1960s, agriculture was the most important sector of the economy, and accounted for more than 50% of GDP and 75% of export earnings. Consequently, with the rapid expansion of the petroleum industry, agricultural development was neglected, and the sector entered a relative decline (Akinwumi, 2013).

Declined agricultural productivity due to oil discovery in Nigeria has drastically reduced the volume of agricultural products and revenue from cash crops over the years. Nigeria's dependence on oil is a disaster to the country's economic growth due to the negligence of non-oil products such as cocoa, cassava, palm oil, among others, that made Nigeria great in the first Republic (Akinwumi, 2013). Thus, between the mid-sixties and the mid-eighties, Nigeria moved from a position of self-sufficiency in basic foodstuffs to one of heavy dependence on imports. Under-investment, a steady drift away from the rural to urban areas, increased consumer preferences for imported foodstuffs (particularly rice and wheat) and outdated farming techniques have kept the level of food production well behind the rate of population growth.

Of non-oil exports, cocoa has been dominant. It accounted for over 50% of the total export in 1970s, and over 60% in 1980. However, since the 1970s, its share steadily declined from 49% in 1989 to 22% in 1998 (Aigbokhan, 2001). Cocoa was the most important agricultural export crop during 1960-1970, contributing significantly to foreign exchange earning of the country. According to Osuntogun et al., (2007), prior to the 1970s, the policy of government towards agricultural development in general and to cocoa production in particular in Nigeria was one of minimum government interventions. The production increased gradually to 308, 000 metric tonnes in 1970/71. The Structural Adjustment Programme (SAP) policy period introduced liberalization which resulted in improved cocoa pricing at the farm gate and increased output in the short run. Also, Osuntogun et al., (2007) attributed the consistency in economic down turn and decline aggregate cocoa output in Nigeria to the introduction of SAP programme in 1986. In addition, Awe (2013) blames the reduction in cocoa production on military intervention in Nigeria politics in 1986. This negatively affects the cooperatives which

virtually collapsed after the abolition of the commodity boards. By 1999, the production level had declined to 170,000 metric tonnes.

In terms of export earning according to Aigbokhan (2001), agricultural export accounted for 81% of total export in 1955-59, 80% in 1960-64 and 57% in 1965-69. In terms of contribution to GDP, agriculture was the leading sector in the 1950s and 1960s, agricultural output accounted for 63 percent of GDP, and in 1965-69 for 54 percent (Aigbokhan, 2001). In 1970-74, it declined to 33 percent, a period which marked the watershed in Nigeria's economic history through the 1973/74 crude oil price shocks. However, from 1970, the decline became very dramatic and this coincided with the prominence of crude oil as the country's main export commodity. In 1970-74, agriculture accounted for 26% of the total exports, thereafter it accounted for less than 10%, being 5.7% in 1975-79, 2.7 and 5.6% in 1980-84 respectively. In 1990-93, it's nose-dived to its lowest at 1.8%, before some recovery in 1994-98 (Aigbokhan, 2001). International Cocoa Organization (2010) reported that, of the global production, Africa production of cocoa beans has declined from 71.8% in 2007/2008 to 68% in 2009/2010 while Americas, Asia and Oceania have increased from 12.5% and 15.8% to 14.4% and 17.5% respectively. The maximum values of cocoa beans exported from Nigeria increased over the period covered from \$309,781,000 in pre-1970 to \$503,666,000 in 2000-2009 (FAO, 2011). Though, production and exportation might varied and fluctuated over the years but exchange earning (\$) increased (table 1). Also, the ministry of trade and industry reported that Nigeria made 1.3billion from cocoa export (Agribusiness, 2017).

Table 1. Cocoa Beans Net Production Value (1970-2009)

Source: Food and Agricultural Organization (2011)

Year	Value	Change (%)
Pre-1970	\$309,781,000	
1979-1983	\$161,744,000	-47.78
1984-1999	\$259,608,560	37.69
2000-2009	\$503,666,000	48.45

Despite the absolute paradigm shift by the government from agriculture into the crude oil, cocoa still remain the second foreign exchange earning in Nigeria. In Nigeria, cocoa is a major export crop with revenue of at least 34 billion derived annually from the export of cocoa beans alone, besides revenue from cocoa by-products like butter, cake, liquor and powder (Akinwale, 2006; Ibiremo et al., 2011).

HISTORY OF COCOA PRODUCTION IN NIGERIA

Since its discovery in the 18th century at the Amazon basin, cocoa cultivation has spread to other tropical areas of south and central, and indeed West Africa, which became the major producer from the mid-1960s (Opeke, 1978). According to Eduardo and Philippe (2013), dominance in world cocoa production shifted from America to Africa in the second half of the nineteenth century and remains so to date. Cocoa was introduced to West Africa from Brazil (South America) precisely from Fernando Po into Nigeria in 1874 and Ghana in 1879 by one Squiss Bamengo, a chief of the Niger Delta (Adegeye, 1996). West Africa has been the centre of cocoa cultivation for many decades, as two-thirds of the world's cocoa is produced in West Africa (Hartemink, 2005). West Africa is a major producer accounting of approximately 70% of global production which fluctuates annually with climatic variations (Abayomi, 2017). Currently, according to International Cocoa Organization (2012) the main producers of cocoa are Cote D'Ivoire, Ghana, Indonesia and Nigeria. Nigeria remains the third largest producer of cocoa and sixth globally. Before the emergence of black gold (crude oil) in Nigeria, cocoa was the major leading cash and export crop in Nigeria especially in southern part of Nigeria. Cocoa was first planted in the Delta region and then spread northward to its suitable cocoa belt of

Western Nigeria. Cocoa was first planted in the Western Region in 1890 (Oyekale et al., 2009). It rapidly gained prominence in Nigeria to the extent that Nigeria happened to be the second largest producer globally by 1965. Before the emergence of black gold (crude oil) in Nigeria, cocoa was the major leading cash and export crop especially in the southern part of Nigeria. Nearly all Southwest States in Nigeria except Lagos involve in cocoa production. The top growing States Ondo, Ogun, Osun Oyo and Ekiti account for about 60% of the cocoa production and make up at least 30% of the total cocoa export in Nigeria. Others are Cross River, Edo, Abia, Kwara, Kogi, Adamawa, and Akwa Ibom. But Nigerian Bureau of Statistic (2013) identified eighteen cocoa producing States in Nigeria. Therefore in addition to the aforementioned State, others are Taraba, Delta, Lagos, Bayelsa, Rivers and Imo States (table 2).

Table 2. Estimated Area (000) and Production (000 mt) of cocoa in Nigeria

Source: National Bureau of Statistics, 2013

S/N	State	2011/12		2010/11	
		Area	Production	Area	Production
1	Ondo	321.97	92.22	320.19	91.99
2	Cross River	327.91	69.42	310.99	71.45
3	Osun	251.3	74.1	237.06	71.1
4	Ekiti	98.15	36.46	97.07	37.97
5	Oyo	109.03	36.06	107.75	33.57
6	Edo	104.77	23.68	105.28	27.36
7	Ogun	92.76	19.9	89.84	19.88
8	Taraba	10.53	4.89	9.78	4.32
9	Delta	11.52	3.93	10.69	3.81
10	Abia	14.49	3.34	13.46	3.3
11	Akwa-Ibom	5.35	1.25	6.82	2.25
12	Adamawa	5.34	1.65	5.33	1.66
13	Kwara	5.14	1.43	4.77	1.41
14	Kogi	3.84	1.06	3.56	1.05
15	Lagos	0.97	0.2	0.9	0.2
16	Bayelsa	0.32	0.09	0.3	0.09
17	Rivers	0.18	0.3	0.16	0.05
18	Imo	0.04	0.01	0.04	0.01
	National	1,363.60	370.01	1,324.00	371.47

Table 2 show that cocoa is cultivated in 18 States on a total land area of 1,363.60 hectares in Nigeria. Cross River State cultivated the largest land area with 327.91 hectares followed by Ondo State with 321.97 hectares. The least cultivated land areas were 0.04 and 0.18 hectares by Imo and Rivers State respectively. The total production by the 18 States were 370.01 metric tonnes, with Ondo State contributing the highest with 92.22 metric tonnes, equivalent to 25% of the total production followed by Osun State with 74.10 metric tonnes per annum. The least production was 0.01 metric tonnes by Imo State. Adegeye (1996) states that over 50% of the total quantity of cocoa produced for export or utilized locally per annum are from Ondo State. Even within Ondo State, cocoa production is not equally produced among the existing district (North, Central and South). In Ondo State, Idanre, Ondo West and Akure South Local Governments are leading producers from 2005-2007.

Soils in South-Western Nigeria had been classified according to their suitability for cocoa into four categories, namely: good cocoa soils, fairly good cocoa soils, poor cocoa soils and very poor cocoa soils (Ibiremo et al., 2010). A previous survey of cocoa soils of Southwest Nigeria also indicated that 62% cocoa in the area was planted on good and fairly good soils while 38% of the cocoa were planted on poor and very poor soils categories. Cocoa production is geographically restricted mainly to the southern, western and eastern parts of the

country (figure 1). All South Western States in Nigeria except Lagos involved in cocoa production in commercial quantity. Other cocoa producing states in Nigeria apart from southwestern states are, Cross River, Edo, Delta, Taraba, Abia, Kwara, Kogi, Adamawa, and Akwa Ibom States. In Ondo State which is the major producer, production varies. Idanre, Ondo West and Akure South Local Governments are the leading producers of cocoa over the years. According to National Cocoa Survey (2005), Ondo State ranked first among the fourteen cocoa producing States in Nigeria (Aikpokpodion, 2010). Over 50% of the total quantity of cocoa produced for export or utilized locally per annum always comes from Ondo State (Ajayi et al., 2010). About four major tree crops (cocoa, rubber, palm tree and cashew) produced in Ondo State, cocoa alone accounts for 80.69% with annual increases of 6.44% over twelve years (2000-2011) of observation (Afolayan and Ajibade, 2012).

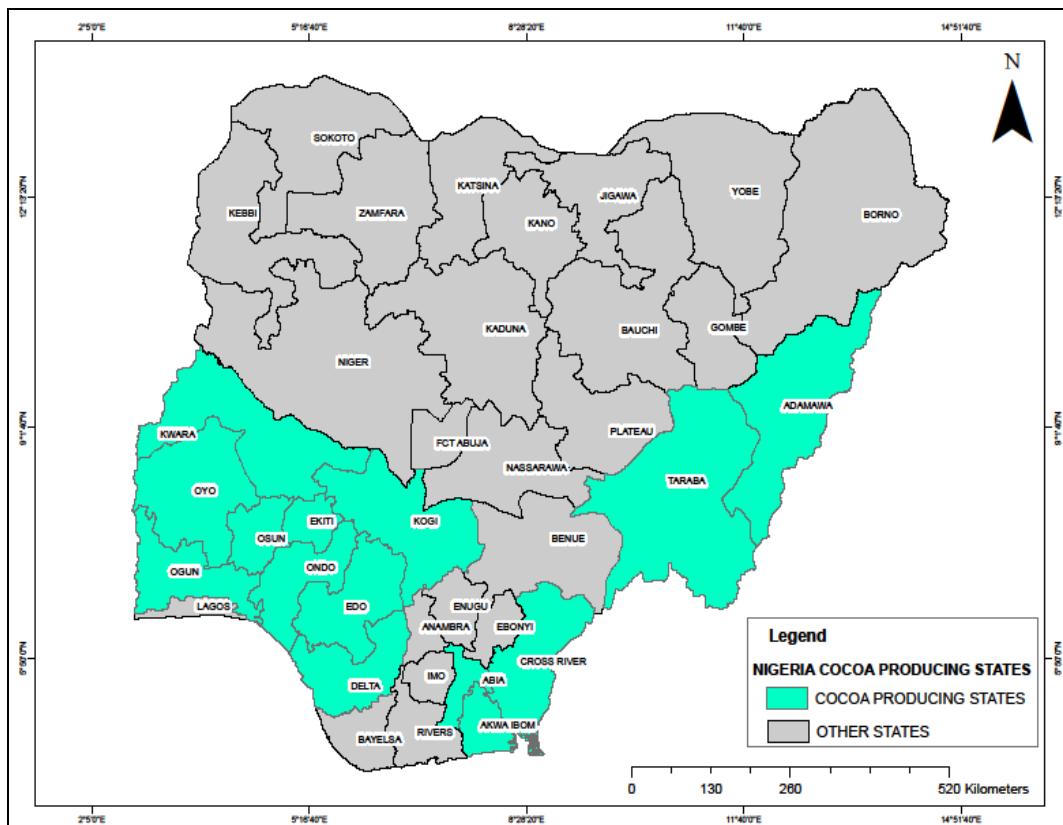


Figure 1. Cocoa Producing States in Nigeria

Source: NCDC (2010) and Afolayan (2016)

Observation on cocoa production data from table 3 calls for serious attention. In summary, it indicates that a remarkable change above 50% of cocoa production occurred from 1971 to 2010. Also in 1988, cocoa output increased from 100,000 metric tonnes in 1986 to 230,000 tonnes, 203,000 tonnes to 323,000 tonnes from 1994 to 1995 and 225,000 tonnes (1999) to 338,000 tonnes (2000). The percentage for the three years was approximately 130%, 59.1% and 50.2% positive change above the previous years (figure 1). The situation of cocoa production and exportation in Nigeria is calling for attention due to the increase in the rate of importation. Production and exportation pattern were decreased at the same rate from 1970–1980.

Table 3. Cocoa Production and Exportation in Nigeria
Source: Modified from NBS (2013), Taiwo et al. (2016), www.statista.com (2019)

Production and Export in Tonnes			Production and Export in Tonnes		
Year	Output	Export	Year	Output	Export
1970	305,000	302,000	1994	203,000	147,897
1971	257,000	254,000	1995	323,000	138,981
1972	241,000	241,000	1996	325,000	182,065
1973	215,000	212,000	1997	318,000	147,075
1974	214,000	212,000	1998	370,000	135,041
1975	216,000	215,000	1999	225,000	208,617
1976	181,000	179,000	2000	338,000	144,821
1977	193,000	192,000	2001	340,000	184,122
1978	157,000	152,000	2002	362,000	191,992
1979	151,000	150,000	2003	385,000	385,000
1980	153,000	150,788	2004	412,000	412,000
1981	174,000	213,551	2005	441,000	441,000
1982	156,000	154,577	2006	485,000	485,000
1983	140,000	228,220	2007	500,000	500,000
1984	140,000	151,183	2008	502,000	502,000
1985	160,000	116,161	2009	513,000	513,000
1986	148,000	174,600	2010	525,000	525,000
1987	100,000	117,070	2011	370,010	N/A
1988	230,000	220,322	2012	371,470	N/A
1989	256,000	148,982	2013	238,000	N/A
1990	244,000	153,520	2014	248,000	N/A
1991	268,000	160,395	2015	200,000	N/A
1992	292,000	110,749	2016	230,000	N/A
1993	306,000	160,420	2017	240,000	N/A

Table 3 shows that from 2003 to 2010, 100% of the nation cocoa output ended up in the foreign country. This implies that cocoa production in Nigeria servicing the processing and other companies in developed countries at the detriment of Nigeria economy. This laid the foundation for the unemployment in Nigeria and setback in agro-economy sector. A living example is Multi-trex Integrated Food Plc. in Ogun State, Nigeria. Today, most of the processing industries are folding-up like Multi-trex while existing ones are not functioning and new ones are not coming on board due to government policies on agricultural products and trade agreement with foreign countries. Declining in cocoa production pattern may be attributed to the absence of cocoa processing industries while the wide gap between 1980-1989 could be the impact of the local cocoa processing industries establishment like Cocoa Industries Limited, Ikeja, Lagos, Cocoa Products (Ile-Oluji) Limited and Stanmark Cocoa Processing Co. Ltd., Ondo State, Multi Trex Integrated Food Plc., Ogun States and others (figure 2).

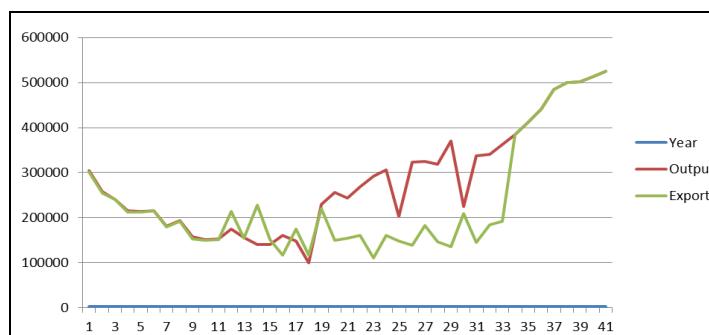


Figure 2. Cocoa Production Trend Pattern in Nigeria
Source: Author's Analysis (2018)

Impact of research institutes such as Cocoa Research Institute of Nigeria, Ibadan established in 1964 as well as the output of the introduced hybrid cocoa species reflects on annual production from 1988 onward.

MISSING LINK IN NIGERIA LOCAL COCOA PROCESSING INDUSTRIES

Varying opinions are put forward for the problems militating against the rapid drop in the quantity of cash crop production in Nigeria. Economy survival of Africa countries, particularly Nigeria had been on cash crop production dated pre-colonial era till the first decade after independence. Agriculture used to be the mainstay of Nigerian economy, providing 65% of Gross Domestic Product (GDP) in the 1960s (Kayode, 2010). But according to Oduwole (2001), its contribution has dropped in recent times to about 26%. Problems militating against cocoa production in Nigeria are climate change, aging of plantation, soil nutrient degradation (natural) and negligence of agricultural sector in favour of oil exploitation, internal and external price fluctuation, and excess exportation due to shortage of cocoa processing factories in Nigeria (human). Apart from these, production and marketing of cocoa has witnessed series of difficulties since 1970s. The price of agricultural products in developing countries is not always stable. Even the government of the country does not have capacity to determine price because of weakness in the area of insufficient local processing industries, absence of cocoa boards, government policy on agricultural products, bi-lateral agreement with the foreign nations and other. Apart from the external factors, cocoa price differs seasonally among the cocoa producing states in Nigeria.

According to Afolayan and Ajibade (2012), Nigeria exports about 86% of raw cocoa bean into the countries of the north on annual basis due to incapability of the available factories to meet up with the global demand. Similarly, Proshare Economy (2017) emphasized that in Nigeria; about 80% cocoa produced is exported as cocoa beans while the other 20% is processed into powder, butter, cake and liquor before being exported. Nigeria is yet to fully capitalize on cocoa production, as most of the beans are sold unprocessed. The study also identified eight cocoa processing factories in Nigeria with combined installed capacity of 150,000 metric tons but only four of them are functional with a combined total volume of 50,000 metric tons per annum. Shortage of cocoa processing factories also added to the problem of cocoa production and marketing in Nigeria. According to experts' statistics, presently, there are about 17 cocoa processing companies in Nigeria; only 9 are functional (Akinfolarin et al., 2012). The rest have either not been completed, closed down or did not come on board at all. Functional cocoa processing factories in Ondo State, the leading producer of cocoa in Nigeria process about 63,000 metric tonnes annually. The newly resuscitated Osun State Cocoa Processing Industry in Ede, Osun State, Nigeria was inaugurated on October 17, 1982, had stopped production in 2001 due to obsolete equipment and management issues (This Day, 2017).

Table 4. Nigeria Cocoa Processing Industrial Capacity
Source: Author Data Analysis (2018)

S/N	Industry	Location	Year	Capacity
1	Cocoa Products Ltd	Ile-Oluji, Ondo State	1984	30,000
2	Cooperative Cocoa Products Ltd	Akure, Ondo State	1992	18,000
3	Stanmark Cocoa Processing Company Ltd	Ondo, Ondo State	1992	15,000
4	Cocoa Industries Ltd	Ikeja, Lagos State	1964	30,000
5	Multi-Trex Ltd	Warawa, Ogun State	2006	12,000
6	Osun State Cocoa Processing Industry	Ede, Osun State	1982	n.a
7	FTN Cocoa Processor Plc	Ibadan, Oyo State	1991	n.a
8	Cadbury Nigeria Plc Cocoa Processing	Akure, Ondo State		
				105,000

Summary of local cocoa processing capacity in Nigeria is approximately 105,000 metric tonnes while the annual production above 370,000 metric tonnes (table 2). In 2011 and 2012, Nigeria production of cocoa in amounts to 370,000/371,000 metric tonnes respectively (Afolayan, 2016). Reports on annual production of cocoa for Nigeria are conflicting. Annual cocoa yields for Nigeria are generally estimated at an average of between 300 to 350,000 metric tons. With regards to their processing capacity Stanmack Cocoa Processing Company Limited, Ondo (15,000), Cocoa Product, Ile-Oluji (30,000) and Cooperative Cocoa Products Ltd, Akure (10,000) (table 4). Effective and efficient functioning of the aforementioned factories would definitely generate thousands of employment either directly or indirectly via multiplier effect. The erstwhile foremost cocoa factory in Nigeria rated as the first in Africa-Cocoa Industries Limited; Ikeja had about 19,000 workers when it was at the peak of production. The processing companies also have many challenges such as irregular power supply, high cost of cocoa bean, inefficient, inadequate working capital as well as obstructive government policies.

CONCLUSIONS

The trend pattern of cocoa production and exportation in Nigeria has been fluctuating since 1970 while generated revenue has been increasing. Exportation is geometrically increasing while local processing is gradually dwindling; the basis for more attention on local processing industries as agro-economy instrument of regional development. To drastically diversify the country economy from mono-economy, the country policies on export agricultural produces needs to be reviewed in favour of local processing. That is equilibrium on cocoa production, internal processing and exportation of semi-finished or finished product should be the main focus of the country rather than absolute concentration on the rate of production alone. Emphases should be laid on the local processing industries in all cocoa producing State across the countries through Public Private Partnership in order to strengthen the stability of the industries rather than one man business. Also, the processes for the revitalization of the liquidated Cocoa Board need to be reviewed. The study also recommends the use of cocoa production as a mean of regional economic development because of its multiplier effect in anticipation of unemployment rate reduction and nation gross domestic product improvement.

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