

## The Impact of Agro-Based Industries on Rural Development for Sustainable Food Production in Ekiti State, Nigeria.

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### Article Info

**Received:** February 22, 2022

**Accepted:** March 09, 2022

**Published:** April 26, 2022

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**Citation:** Adegboyega Emmanuel Rotimi and Owolabi Jimoh Temitayo. (2022) "The Impact of Agro-Based Industries on Rural Development for Sustainable Food Production in Ekiti State, Nigeria.", *Journal of Agricultural Research Pesticides and Biofertilizers*, 3(5); DOI:<http://doi.org/04.2022/1.1071>

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### Abstract

The study aimed at using agro-based industries as strategies for sustainable food production on rural development in Gbonyin Local Government Area of Ekiti State, Nigeria. It examined the sources of raw materials for agro-industries in the study area and accounted for the contribution of the agro-industries to the economic development of the study area. The study looked at the agro-based industries and saw that they were not sufficient enough to meet the desired objectives of economic development in the study area. The data sources used were both primary and secondary data. The primary data made use of personal interview and questionnaire to elicit information on the roles and impacts of agro-based industries for sustainable food production in a certain rural areas of Ekiti State. The results gathered and the findings obtained revealed that the agro-based industries in the rural areas had been effective strategies for rural development and had improved the lots of individuals in coping with both their social and economic problems. The study recommended that agro-based industry should be one of the strategies to use for rural development and economic improvement of Ekiti State, Nigeria for the sake of sustainability.

**Keywords:** agriculture; agro-industry; food-production; rural-development; strategy and sustainability.

### Introduction:

The pursuance and achievement of the sustainable development goals in Nigeria take a systematic form. Nigeria as a developing country has witnessed great disparity and interdependence between rural and urban settlements. And she could not have urban centres developed only without its spread to the rural communities. Therefore, rural settlements could be developed through agriculture and industry to improve her local economy. Hewes (1993) defined agriculture as the raising and the preparation of useful plants, animals and forest resources for man's use and perhaps one of the most important socio-economic activities in the tropics. Agriculture constitutes the mainstay and livelihood of millions of people in Nigeria including Ekiti State being an agrarian community for it has meaningful contribution to her foreign exchange, income and the gross domestic product (GDP) of the nation (Oyerinde, 2015). Industries manufacture, process goods from available raw materials to a finished product through her services and social infrastructure in the society. And it is increasingly understood that social infrastructures and services play a crucial role in addressing the objectives of the sustainable development goals such as ending poverty in all its forms, zero hunger, decent work, economic growth and employment opportunities (Ayeni and Odeyemi, 2015).

Therefore, agro-based industries are important tools and strategy for developing rural areas in Nigeria including Ekiti State. Agro-based industries are demand drivers schemes and bottom-up approach method where project identification and decisions are taken by the people. The scheme entrusts key decision making to the grassroots and involve a high participatory mode of services delivery to the communities with the consequences of the introductory of community ownership of projects and participation in all levels of project planning and execution (Narayam, 2000).

Ekiti state is a coagulation of urban and rural communities which are developed using the agro-based industries such as sawmills, gari processing, block making and the oil-



palm processing industry. The agro- industries deal with the supply, processing and distribution of farm produce by helping to stabilize and make agriculture more lucrative and create employment opportunities both at the production and the marketing stages. Jimoh (2008) stated that agro-based industries is a development strategy principally aimed at economic growth, solving the problem of an employment, income distribution and foreign exchange. This also helps to meet the Sustainable Development Goals.

The agro-base industries comprise the post-harvest activities of processing and preserving agricultural product for intermediate or final consumption. They are important in agriculture because they produce food, promote economic growth and food security. The food produced is not just meant for production only, for it encompasses a wide variety of processed products because it is a vital part of the manufacturing sector in developing countries and means for building industrial capacities (FAO,2005).

Agro-based industries are the integration of agriculture and industries together, and lie on the fact that the provision of raw materials determine the location and localization of industries, and balancing the development in the area concerned in any country. Industries are ubiquitous and they are the backbone of any country that would thrive well. They are classified as food industries and non-food industries.

Therefore, the purpose for the location and establishment of agro-industries in Ekiti State is for rural development, agricultural development, income generation, wealth generation and poverty eradication in order to improve the standard of living of man, raise his income and ensure that his developments are self-sustaining. These are done by satisfying man's social needs, meet his economic benefit and improvement of his environment (Mabogunje, 2001). Rural sector is the major source of capital formulation for the country and principal market for the domestic and raw materials for industrial processes.

Agricultural development could be in form of adding value to and increase farm outputs through improvement of machines, machineries, chemical fertilizer, pesticides, storage and transportation all resulting to employment opportunities, poverty reduction and food security( Tombofa,2004; FAO,2005 and Abasiokong, 2012) . And it enhances employment opportunity through handling, processing of agricultural produce, packaging, storage, transportation and marketing in the study area.

Stanley (2009) asserts that agriculture and agro-based industries work hand- in- hand. The employment opportunities offer to people serve as income generation means through technical papers, advice, awareness campaign, education, investment and capacity building to the area concerned (FAO, 2005 ).This contributes to the economy, provides employment for the teeming population and eradicate poverty in the society.

The study aims at looking at the impact of location and establishment of agro-based industries in Gbonyin Local Government Area of Ekiti State as strategies for rural development in the area for sustainable food production bearing in mind the availability of raw materials for siting the agro-based industries for the benefit of rural-urban populace and lifting the

well-being of the rural people through its establishment for economic and developmental purposes in the study area.

## Materials and Methods:

### The Study Area:

The study area is Gbonyin (formerly known as Aiyekire) Local Government Area of Ekiti State with Ode Ekiti as its Local Government headquarter at its inception alongside with the creation of Ekiti State in 1996. It was renamed Gbonyin Local Government Area which was the old name which the area was known for because it has a lot of palm fruit in it in the time past and it is situated entirely within the tropics. Gbonyin L.G.A lies between latitude  $7^{\circ}20'N$  and  $7^{\circ}32'$  North of the equator and between longitude  $5^{\circ}20'$  and  $5^{\circ}40'$  East of the Greenwich meridian. The study area shared territorial boundaries with seven Local Government Areas, Irepodun/Ifelodun, Ikole and Ekiti East in the north, Ado Local Government Area, in the west, Ise/Orun and Emure Local Government Area in the south and Ondo State in the east. (Fig2)

The Study Area is an agrarian and predominantly homogenous society made up of eight major towns and several villages. It covers about  $378\text{km}^2$  (see fig 1 and 2). The soil in the study area belongs to debris hydromorphic soil with the topography being an upland zone of 250 metres a.m.s.l with underlain metamorphic rock of basement complex (Jimoh,2008)

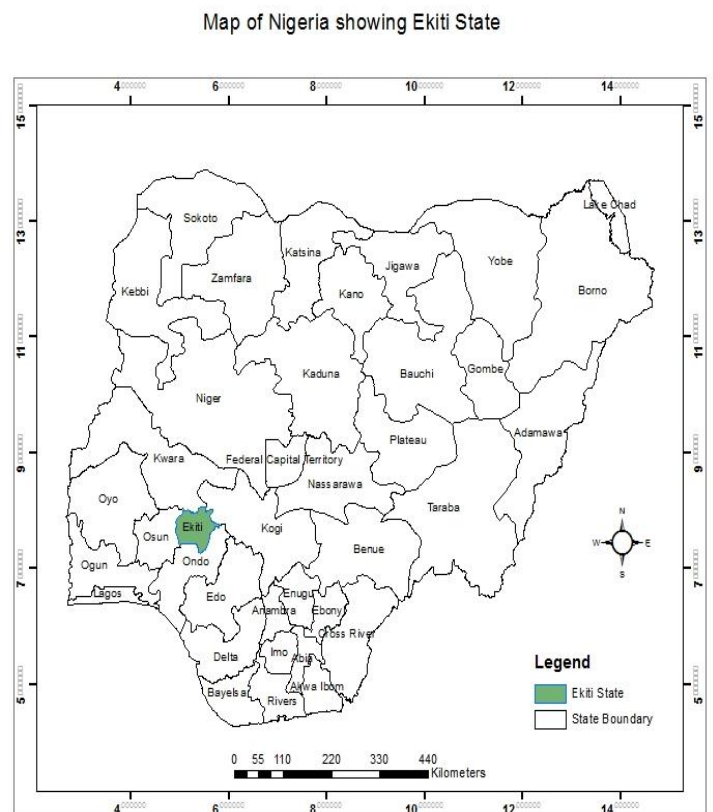
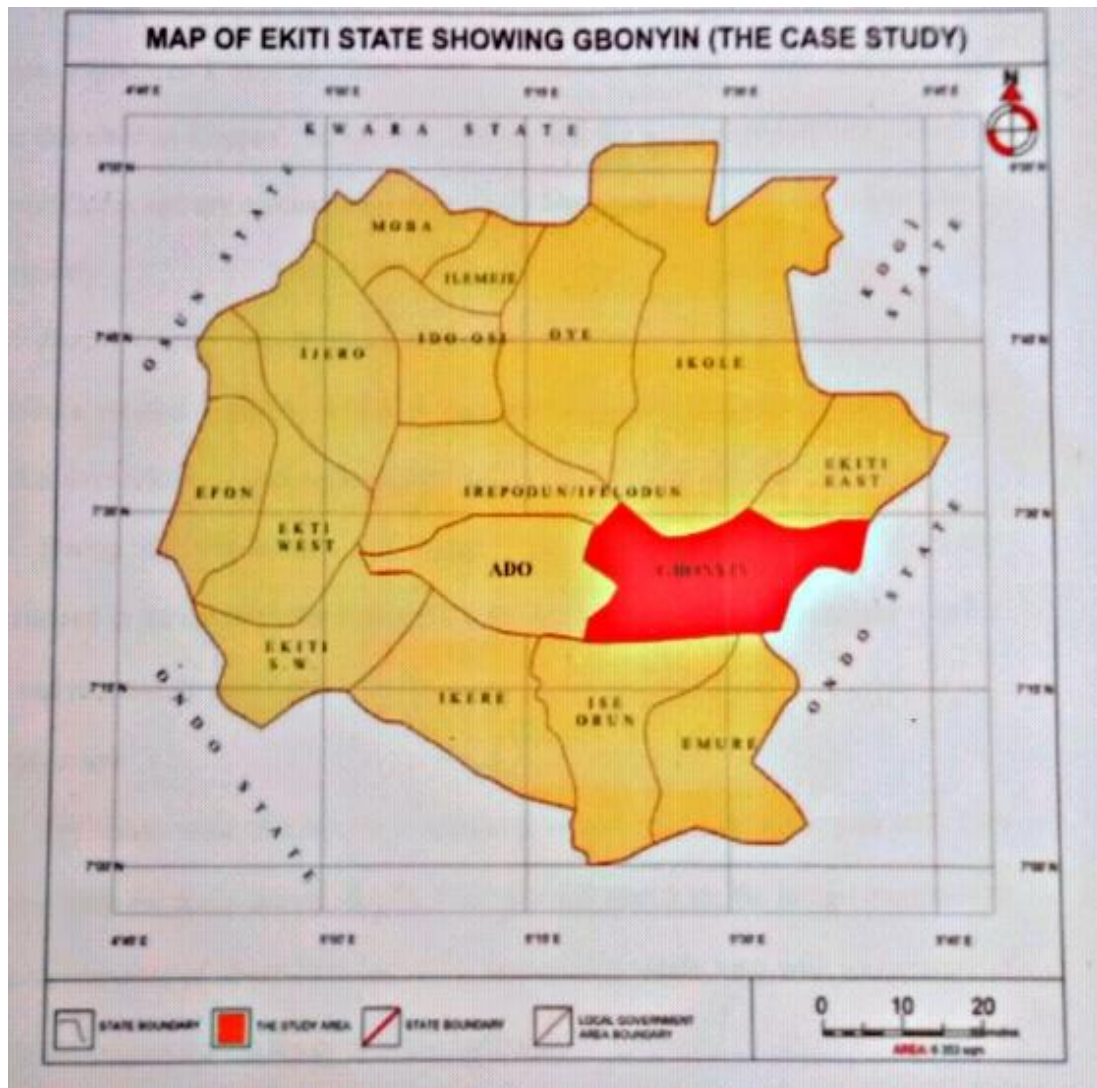


Figure 1: Map of Nigeria showing Ekiti State

Source: Office of the Surveyor-General, Ekiti State,2019



**Figure 2:** Map of Ekiti state showing Gbonyin Local Government Area  
 Source: Office of the Surveyor-General, Ekiti State, 2019

**Method of data collection:**

Data for the study were collected from both primary and secondary sources. The primary data were collected using field survey and administration of questionnaire on the respondents in the study area. The secondary data were collected from ministry of commerce, industries and cooperatives in Ekiti State. The agro-based industries in the study area are Oil Palm Processing Industry at Iluomoba,-Ekiti, Timber-Processing Industry located at Ijan-Ekiti and Cassava Processing Industry at Aisegba-Ekiti.

**Data Analysis:**

The results obtained were analysed using of simple percentage and frequency counts. Likewise, the chi-square method was used as inferential statistics to analyse the null hypothesis ( $H_0$ ) which stated that the establishment of agro-based industries does not have positive impact on the development of the study area ,that is, it tests the relationship between the establishment of the agro-based industries and the level of development in the study area. The result of the calculated Chi-square was (16.7) which was greater than the critical level of freedom (6). The null hypothesis

was rejected and paved way for the alternative hypothesis. This shows that the establishment of agro-based industries have positive impact on the development of the area.

**Results:**

S/ N	VARIET IES	ILUMO BA	IJA N	AISEG BA	FREQUE NCY	TOT AL %
1	Farming	35	29	22	85	56.67
2	Trading	10	15	5	30	20
3	Artisan	10	5	10	25	16.67
4	Other trade	5	2	3	10	6.767
	Total	60	50	40	150	100

**Table 1:** Dominant Occupation in the study area  
 Source: Field work, 2019

Table 1 reveals that farming is the major occupation in the study area with 56.7% respondents as farmers and that farm produce serves as a source of raw materials .This shows that any agro-based industries established in the study area would have adequate source of raw materials to assist more establishment of agro-industries and improve the agro-based industries already





sited by (individual ,corporate and government- assisted) in the area.

S/N	Type of Agro-based	Ilumoba	Ijan	Aisegba	Total	%
1.	Oil palm industry	60	---	---	60	40
2.	Timber processing	---	50	---	50	33.33
3.	Garri processing	---	---	40	40	26.67
	Total	60	50	40	150	100

**Table 2:** Presence of Agro-based industries in the area and satisfactory level of production  
Source: Field work,2019.

Table 2 shows the types of agro-based industries that are established in each of the major towns in the study area, and also shows the level of production and the degree of satisfaction of the respondents. They agreed to the production level even though only one product in each of the town was represented, 60% were less satisfied at Ilu-moba-Ekiti for there are other oil palm processing units in the study area that were not assisted by government thus the degree of satisfaction as per production and services were not satisfactory. Same thing goes for the timber processing in Ijan-Ekiti and Gari industry at Aisegba- Ekiti respectively. The level and the rate of sales are at affordable prices to the residents.

S/ N	Variety	Ilumoba	Ijan	Aisegba	F	%
	Level of development due to the agro-industry	Oil	Timber	Garri	Frequency	Percent
1	V.good	15	19	10	44	29.33
2	Good	28	6	12	46	30.67
3	Bad	15	20	15	50	33.33
4	V.Bad	2	5	3	10	6.67
	Total	60	50	40	150	100

**Table 3:** Level of Development in the area  
Source: Field work, 2019

Table 3 shows the level of development in the towns where Agro-industries are located. 60% of the respondents see the contribution of agro-industries in the study area as being at good level of development by saying that it helps in infrastructural development in the area and a source of employment for some unemployed youth in the study area while 40% did not see the impact in terms of economic, social or physical development as they were of the opinion that if government has assisted them in terms of soft loan, their products could have contributed immensely to the social, economic and physical development of the area. Only few take cognizance of the impact of the agro-based industries. The Governments' impact are not felt as such.

S/N	Contribution of Agro- based industry	Iluomoba	Ijan	Aisegba	F	%
1	Employment	18	20	14	52	36.67
2	Economic Development	25	18	11	54	36.00
3	Basic Amenities	14	17	13	44	29.33
	Total	57	55	39	150	100

**Table 4:** Contributions of Agro-industry in the study area

Source: Field Work, 2019.

Results gathered in table 4 shows the contribution of agro-based in the area. 36.67% of the respondents accounted its contribution to the provision of employment opportunity in the area, while 36% saw it as a source of economic developmental ventures even in the just three locations in the L.G.A where 29% of the respondents saw it as supply of basic amenities to the area.

Town	Very Fair	Fair	Not fair	Very Bad	Total	%
Ilumoba	15	28	15	2	60	40
Ijan	19	6	20	5	50	33.33
Aisegba	10	12	15	3	40	26.67
Total	44	46	50	10	150	100

**Table 5:** Level of Development due to location of the agro-industries in the study area

Source: Field work, 2019

Using Chi-Square  $X^2$  for analysis

Degree of freedom (k-1) (8-1)

$$Df = (4-1)(3-1)$$

$$Df = 3*2 = 6$$

Ij	Oij	Eij	Oi-e <sup>1</sup>	(Oi-ei) <sup>2</sup>
Ksi	15	17.6	-2.6	0.38
	28	18.4	9.6	5.01
Ilumoba	15	20	-5.0	1.25
	2	4	-2.0	1.00
Ijan	19	14.6	4.4	1.33
	6	15.3	-9.3	5.65
	20	16.7	3.3	0.65
Aisegba	5	3.3	1.7	0.88
	10	11.7	-1.7	0.25
	12	12.2	-0.2	0.00
	15	13.3	1.7	0.22
Total	3	2.7	0.3	0.03
	150	150	0.	16.7

**Table 6:** Analysis of table using Chi-Square Method  $X^2$

Source: Field work, 2019.

$$X^2 = 16.7$$

Since the computed value  $X^2$  is higher than the table value of 6 then the alternative hypothesis – the establishment of agro-industries has a positive impact on the development of the study area.

**Discussion:**

**Rural based industrialization, integrated schemes and programs:**

The result gathered in the study area showed that the location of agro-based industry has positive impact on the environment and the people of the area. The study area could achieve greater success by locating and establishing more oil palms processing industries in Gbonyin Local Government Area other than Iluomoba in consonance with the finding of Oladipo,(2008) in the cases of Presco Plc, and Okitipupa oil palm agro-industries in Ondo State that are known world-wide. Similarly, more cassava processing industries are needed in the study area at Imesi-Ekiti, which could be similar to that of Emure- Ekiti that was established as Better Life Programme for Women during Babangida regime. If more are established, it would be to develop the area further. Nigeria is the largest producer of cassava in the world (34 million tons) as reported by FAO (2005) and until now no counter report



has ever come.

Agro-based industries feeds, produce jobs and increase the gross domestic product (GDP) of the the nation .We ought to recast our mind back to post independence Agricultural plans and schemes for Nigeria which could be of assistance in the study area for the sake of government's intention to motivate development at the grass-root. This led to the enactment of local government reforms for spatial spread of development to the rural areas. The era witnessed the establishment of agricultural research Institutes (ECRIN 1964, IITA,1967 and FRIN). In order to boost food production and ensure sustainable development, large scale irrigation farming spanned through Nigeria and storage facilities were provided (FRN,1970). Establishment of Agricultural Banks for credit facilities and various agricultural development programmes and schemes that could improve quality of life and increase rural income were researched into and provision of basic amenities to rural community through rural integrated projects, operation feed the nation (1976-78), Green revolution 1980 and the Fourth, National Development Plan (1981-85) in which agro-based industries lie in this discourse.

#### **Agro-based industries as strategy for rural development in the study area:**

Rural areas in Nigeria is associated (synonymous) with local agriculture (IFAD,2011). Therefore, efforts over three decades show that the previous strategies used have not yielded the expected result. For instance, the use of Import substitution industries (ISI) primarily aimed at economic growth and gross domestic product (GDP) would not solve the problems of unemployment, income distribution, regional economic disparities and undue concentration of wealth in the hands of few people in the urban centre, wasteful utilization of production resources , mass integration of youth from rural to urban and lack of social amenities in the rural areas (Oyerinde,2015) but rural development that could be developed from the concerted self-effort and establishment of agro-based industries in conformity with the opinion of Akinbode (1977). Towns like Ode-Ekiti, Imesi-Ekiti, Agbado-Ekiti should grow hectares of palm trees, embark on afforestation projects so as to establish more oil palm processing industries, paper mill and cassava processing industries in Gbonyin Local Government Area. Location and establishment of agro-based industries will make rural areas to develop as migrants are forced back to rural areas to populate there and thus prevent farther stream of migrants from leaving the rural areas, because of more job opportunities are provided in there to keep them up in the area.

Agro-based industries would provide access to services, create employment, health centers, access to safe drinking water through the national rural development program and supporting schemes. Finally, by establishing and locating agro-based industries in other rural areas of the LGA and Ekiti State in general, this will rapidly increase her development and ensure that people in the rural settings do make use of the opportunity for their economic growth and sustainability of Ekiti State in general.

#### **Conclusion and Recommendations:**

##### **Conclusion:**

The agricultural output (farm produce) produced as raw materials

should not be allowed to waste away or spoilt due to non-preservation, lack of storage and technology to process them. Thus, by establishing more of such agro-based industries in the study area, more opportunities are for the community in terms of handling, processing into other products, access to service delivery and economic benefits for the people in the area. Majority of the agro-based industries will be turned into manufacturing, extraction and processing industries for all our products. Thus, it increases the sales and services on small scale basis which involves the people of the area in question. And that the establishment of agro-based industries provides a good standard of living, improving the economic activities of the area for her growth and changes which calls for sustainable development.

##### **Recommendations:**

Ekiti state being an agrarian community should support the establishment of more agro-industries in the area to combat agricultural wastes. Secondly, both private investors and government should offer credit facilities and financial assistance to would be entrepreneur (proprietor) in establishing agro-based industries.

Thirdly, government and individuals should encourage more investments in the area to prevent streams of migrants from leaving the area for better opportunities elsewhere, rather, it would force them to settle in the areas for more productivity.

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