

Indian Journal of Modern Research and Reviews

This Journal is a member of the '*Committee on Publication Ethics*'

Online ISSN: 2584-184X



Research Article

Rice Importation in Nigeria and Sustainable Food Security in Lower Anambra Irrigation Project (LAIP) in Ayamelum LGA, Anambra State

Dr. Okonkwo, Clement Nwafor

Abstract:

The inherent need for food and the limited supply of it has necessitated importation and exportation of food in the global society. Precisely, rice importation has taken a centre stage in the total food production chain in Nigeria because it has proved to be relatively staple food in the country. The study sets out to unravel the nexus between rice importation in Nigeria and food security in LAIP in Ayamelum LGA of Anambra state. Therefore, it is guided by the research question: Has rice importation in Nigeria undermined food security in LAIP in Ayamelum LGA of Anambra State? We generated our data from both primary and secondary sources through questionnaire and documentary methods respectively and analyzed it with charts, tables and content analysis. Theoretically, we adopted dependency theory as the fulcrum around which the study revolved. The theory maintained among others that the premature integration of the third world countries to the global capitalism was responsible for its underdevelopment. However, the study found that the importation of rice in Nigeria brings about dependency in the country because it makes the government and the citizens to rely heavily on imported rice for their consumptions, thereby neglecting the production of rice in LAIP in Ayamelum LGA of Anambra State. As a result, we suggested that the Nigerian government should contain importation of rice and invest on revival of the established irrigation project in Ayamelum LGA and subsidize agricultural inputs such as insecticide, herbicide, fertilizer and pesticide. These will go a long way in boosting rice production and food security in LAIP in Ayamelum LGA of Anambra State.

Keywords: *Development, Dependency, Food security, Protectionism, Rice importation.*

1. Introduction:

In line with classical mercantilist principles and tradition, a state should do everything humanly possible to ensure balance of payment and trade surpluses in each financial year. This can only be achieved through protection of the infant industries with the apparatuses of the state. Subsequently, the introduction of liberalism by Adam Smith and expansion of it by his contemporary, David Ricardo by addition of Comparative Cost Advantage (CCA) brought the idea of open economy, which they claimed among other things that it would engender world economic growth and development (Baalam & Dillman, 2011). In the end, the projected elixir of economic growth (liberalism) by the liberal vendors degenerated and became a harbinger of economic dependency of the periphery on the core states. To eschew this imminent economic doom, countries of the global world started adopting some of the mercantilist principles to have a stake in the global economic terrain. It is obvious that the international society frowns at any traces of protectionism which necessitated many economic rounds organized in the international community.

Article History

- ISSN: 2584-184X
- Received: 14 Nov 2023
- Accepted: 25 Dec 2023
- MRR:2(1) Jan. 2024:01-10
- ©2023, All Rights Reserved
- Peer Review Process: Yes
- Plagiarism Checked: Yes

Authors Details

Dr. Okonkwo, Clement Nwafor
Okija Campus Anambra State,
Madonna University, Nigeria

Corresponding Author

Dr. Okonkwo, Clement Nwafor
Okija Campus Anambra State,
Madonna University, Nigeria

However, states are advertently or inadvertently involved in this economic protection, which Nigeria is inclusive. States engage in this by intervening in the economy through containing importations and encouraging production and exportation. In the same token, the Lower Anambra Irrigation Project (LAIP) was established in Nigeria and cited in Ayamelum LGA, Anambra state by mid 80s during General Ibrahim Babangida's administration for the primary purpose of commercial rice production to ensure adequate food security. At the inception of the project, everything was provided and at the subsidized status which brought about availability of food in the area (Okonkwo, 2023). Subsequently, the whole paraphernalia for rice production which include adequate water supply, good road network, hybrid seeds, herbicides, insecticide, fertilizers, ploughing and mowing machines, combine harvesters, destining machines that were made available to farmers were no longer provided for them. As a result, the zeal and motivations that sustain the farmers in the business continues to dwindle because those that must remain in the endeavour must unequivocally fend for themselves, thereby compounding the stress and drudgery in the venture. This development culminated in low productivity, which manifested in food insecurity in the area. The last straw that broke the camel's back, which also serves as the focus of the study is incessant importation of rice in the country. Extant scholars such as Ogundele and Okoruwa, 2006; Akinbile, 2010, Adenuga *et al.*, 2013; Obayelu *et al.*, 2017) have in accord observed that importation of rice will go a long way in making food available in the state but the gap remains that they did not see it in the area of food sufficiency and sustainability. Food sufficiency in this regard implies production of enough food within the enclave while food sustainability means availability of food without hampering other sectors of the economy. In a sustainable food production chain, the sectors of the economy will engage in the production process thereby utilizing the forward and backward linkages in the economy (Ake, 1981). However, the study is designed to interrogate the link between rice importation in Nigeria and food security in Ayamelum LGA of Anambra state. For purpose of brevity and precision, the study is organized under the following paradigms: clarification of food security and rice importation, methodology, rice importation and food security in Ayamelum LGA, data presentation and analysis, conclusion and prognoses.

1. Food Security

According to Kleinman *et al* (2010), food insecurity can be seen from the angle of shortage in the access to nutritionally adequate and safe food resulting majorly from poverty. For FAO (2010), it is a product of inadequate consumption of nutritionally adequate food, considering the psychological requirement of food by the body as being within the sphere of

Nutrition and health. Stressing further, it stated that chronic food insecurity is because of lack of resources to acquire and produce food, thereby leading to persistent inadequate diet. In the view of WDR (2001), the three pillars surrounding food security include food availability, food safety and food utilization. Departing from the aforementioned, Idachaba (2006) noted further that food security is the antithesis of food insecurity and it exists when all people have social, physical and economic access to adequate, nutritious and safe food to meet their dietary requirement at all times, for good living. Also, Devies (2009) is of the view that, a country is food secured when there is access to food in adequate and acceptable quantity and quality, consistent with decent existence at all times for the majority of the population. "Food hygiene and safety should also be given important consideration in order to protect the health of the people" (Ojo, 2012). More so, sustainable food security exists when all people have social, physical and economic access to adequate, nutritious and safe food to meet their dietary requirement at all times for a productive healthy life at present as well as future life (Abdullahi, 2008).

1. Rice Importation

Rice importation is an act of bringing in processed rice into a country to supplement the produced ones. This act of bringing in processed rice into another country is caused by insufficient production of the consumption level of the product within the economy. According to Cadoni and Angelucci, (2013), Nigeria is currently the largest consumer of rice in West Africa. Hence, Nigeria meets her demand deficit through importation of rice from other countries (Ogundele & Okoruwa, 2006). As a result, Nigeria is ranked as the second largest importer of rice in the world (Obayelu *et al.*, 2017). The growth in demand for rice is attributed to factors such as increasing population, increased income levels, and rising urbanization (Cadoni & Angelucci, 2013). In an attempt to bridge the supply/demand gaps, the Federal Government of Nigeria, under various regimes have come up with programmes and policies to stimulate greater local production and consumption of locally produced rice and other staple crops (Ajijola *et al.*, 2012). In the proposition of Coalition for African Rice Development (CARD) (2009), the country has the capacity in terms of fertile land, agro-climatic conditions and labour to substantially increase its rice production and output. The attendant benefits of the government's intervention programme to stimulate local production of rice in the rice value chain are enormous and worth pursuing. For instance, this would create further employment in the production, processing, and marketing aspects of the rice value chain. In addition, it is important to enhanced accessibility from the production site to the market that this will generate. Apart from increasing income and contributing to food security, increased rice output overtime may turn around the supply-demand gap, saving foreign exchange for the nation. Therefore, rice importation serves as a

threat to sustainable and self sufficient food production to an economy.

Methodology

The study is analyzed under the theoretical underpinning of dependency theory. Dependency theory can be seen as a body of social science theories that emphasized on the idea that resources flow from the poor (periphery) or underdeveloped states to the wealthy (core) or developed states, where the latter enrich at the detriments of the former. It is the basic argument of the dependency theory that poor countries are impoverished because of the premature integration in the world economic system and the lopsided economic relations therein (Rodney, 1972). The theory was developed in the late 1950 by Raul Prebisch as a reaction to modernization theories of development, which maintained linear stages of development. The theory debunked the above view, stating that underdeveloped countries are not merely primitive versions of developed countries, rather, have unique characteristic of their own. However, they opposed to free-market economy and suggested that underdeveloped countries should delink from their connections with the world market so that they can carve a niche in keeping with their own needs and be free from pressures of external dictates (Frank, 1976). Dependency theory construes development and underdevelopment as two sides of a coin because they are the inevitable results and the practical manifestations of the global capitalism and its innate contradictions and exploitative tendencies. The theory classified the world into the core and the periphery and argues that the export of capitalism by the West to other parts of the World and its resultant colonialism cum neo-colonialism is responsible for the underdevelopment and dependency of the Third World. The theory also argues that capitalism is driven by the quest for profit maximization (Ake, 1981). Specifically, the theory has the following propositions among others:

- Development is a condition fundamentally different from underdevelopment.
- The distinction between development and underdevelopment places the poorer countries of the world in a profoundly different historical context.
- Dependency theory suggests that alternative uses of resources are preferable to the resource usage patterns imposed by dominant states.
- Dependency theorists rely upon a belief that there exists a clear 'national' economic interest, which can and should be articulated for each country.
- The diversion of resources over time (and one must remember that dependent relationships have persisted since the European expansion beginning in the fifteenth century) is maintained not only by the power of dominant

States but also through the power of elites in the dependent states (Wallerstein, 1970). By a way of application, the importation of rice in Nigeria is promoting the dependency of the periphery on the core, which dependency theorists kicked against and suggested that the developing countries should devised an environmental sustainable ways of development. This can be done through some elements of state intervention in the economy by subsidizing agricultural inputs and control importation of foods especially rice. By extension, the more the government intervenes in rice production through subsidization of inputs and control of importations. The more the farmers will fully engage in rice production, the more rice is abundantly produced in Ayamelum LGA, and the more food is sustainably secured. This study adopted the ex-post facto research design which is used in reference to an experiment in which the researcher, rather than creating the treatment, examines the effect of a naturally occurring treatment after it has occurred (Leege & Francis 1974). In the context of social science, an ex-post facto investigation seeks to reveal possible relationships by observing an existing condition or state of affairs and searching back in time for plausible contributing factors. The ex-post facto method of research seeks to establish causal relationships between events and circumstances. In other words, it finds out the cause of certain occurrences or non-occurrences (Kerlinger, 1986). The pre- and post-measurement symbols are demonstrated below:

$$O_1 O_2 O_3 O_4 \quad X \quad O_5 O_6 O_7 O_8$$

There are series of pre and post measurements, but the change between O_4 and O_5 is the principal focus for measuring the effect of the quasi-experimental treatment, that is, the independent variable (X), which is food security and (Y), which represents rice importation. This method of research design appears to be helpful in the study because the problematic has happened and it is ongoing thus, $O_1 O_2 O_3 O_4$ are the pre-measurement observations while $O_5 O_6 O_7 O_8$ are the post-measurement symbols. We adopted survey and the documentary methods of data collection through questionnaire. It helps us to collect data from both primary and secondary sources. The population of the study is the farmers in LAIP in Ayamelum LGA of Anambra State. Ayamelum is comprised of eight communities: Anaku, Igbakwu, Ifite-Ogwari, Omasi, Omor, Umerum, Umeje and Umumbo. According to the 2006 National Population Census recorded by the National Bureau of Statistics (NBS, 2010), Ayamelum LGA has a population of 158,152 which comprised of 81,065 male and 77,087 female with the following distribution: Anaku (15,640); Igbakwu (9,060); Ifite-Ogwari (25,723); Omasi (10,647); Omor (70,228); Umerum (10,229); Umeje (6,257); Umumbo (10,360) as demonstrated in table 1 below

Table 1: Age Distribution of Population in Ayamelum LGA, Anambra State

S/N	Age Bracket	Population
1	0-9	40,512
2	10-19	37,649
3	20-29	28,487
4	30-39	19,132 70,542
5	40-49	14,292
6	50-59	8,631
7	60-69	5,009
8	70-79	2,511
9	80 and above	1,929

Source: National Bureau of Statistics (2010)

Based on the age distribution demonstrated on the table above, the active age for farming ranges from 20-59 years, which has the population of 70,542. In addition, considering the arable nature and fecundity of the lands in the communities in Ayamelum LGA, the authority concentrated mainly on four communities (Ifite-Ogwari, Omor, Umerum and Umumbo) with little emphasis on the remaining communities (Anaku, Igbakwu, Omasi and Umeje). In all however, the Authority developed about five thousand hectares of land (5,000) and irrigated three thousand eight hundred and fifty (3,850) irrigable hectares. However, according to the Project Manager (PM), Mr. Egwu, M. Friday during our interview, the number of farmers in Lower Anambra Irrigation Project is around six thousand (6,000). This, therefore, became our population of study. Our sample size is derived from all the farming communities in the areas. The sample size will be strictly allocated based on the populations of the individual communities with much consideration of the identified active farming age (20-59) as indicated on table 1 above. However, the communities and their populations are illustrated on the table below:

Table 2: Populations of Communities in Ayamelum LGA

S/N	Communities	Populations
1	Anaku	10,648
2	Igbakwu	9,060
3	Ifite-Ogwari,	18,723
4	Omasi	10,647
5	Omor	70,228
6	Umerum	15,229
7	Umeje	6,257
8	Umumbo	17,360
	Total	158,152

Source: National Bureau of Statistics (2010)

For the sample size of our population (6,000 farmers), we derived our sample size cum techniques from Krejcie and Morgan (1970) where they presented a table of suitable sample sizes for different population ranges as demonstrated below:

Table 3: Table for Determining Sample Size from a Given Population

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	378
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note: N=Population Size, S=Sample Size Source: Krejcie & Morgan (1970)

Thus, our sample size for questionnaire distribution became 361 respondents (Table 3 above). Using Purposive Non-random Sampling method, we selected 361 respondents from the farmers in Lower Anambra Irrigation Project (with strong consideration of the populations of their communities) as demonstrated on the table 4 below.

Table 4: Sample Size of Population Distributions of Farmers by Communities in LAIP

S/N	Communities	Population of Farmers	Sample Size
1	Anaku	316	35
2	Igbakwu	228	33
3	Ifite-Ogwari	500	45
4	Omasi	253	35
5	Omor	3,317	80
6	Umerum	594	49
7	Umueje	129	23
8	Umumbo	654	54
9	Others	16	7
	Total	6,007	361

Source: LAIP Annual Statistical Report, 2016

To this population samples, therefore, we administered unstructured questionnaires which enabled us elicit deeper insight into the variables we assessed and to allow our respondents give every detail they know about the problematic. Furthermore, we employed the non-probability sampling technique for choosing the population sample for the interview with the LAIP staff. Thus, we used the Purposive or Judgmental Sampling method to select 3 staff of the LAIP for the interview. The essence of this sampling method is because we needed to select only the staff that possesses adequate knowledge as to offer required answers to our questions due to the positions they occupy in the establishment. We adopted both quantitative and qualitative methods of data analysis. For the quantitative analysis, we employed the descriptive statistical method of analysis and this involves the use of tables, charts and percentages in the representation of data. On the other hand, for the qualitative analysis, we used qualitative descriptive method of analysis blended with textual analysis. This method helped us to analyze the data generated from both primary and secondary sources in systematic way to the extent that it is very easy to understand. This method therefore helped us read through the secondary sources of data and be able to extract important data and systematically reduce them into logical and meaningful information that will be useful to this research and others.

1. Rice Importation and Food Security in Nigeria

Rice importation is an act of bringing in rice from another country to supplement the available rice produced domestically. Sustainable food security on the other hand connotes the availability of food through importation without harmful effect to the domestic economy. Therefore, this segment of the study is saddled with the responsibility to unravel the impact of rice importation on sustainable food security in Nigeria. To begin with, global welfare is said to be maximized when countries engage in trade, and especially in commodities in which they enjoy comparative resource advantage in production. This is principally the reason why foreign trade has been of interest to development economists (Egwaikhide, 1999). Stressing the importance and consumption rate of rice in the country, FAO (2012) maintained that the Nigerian economy relies heavily on the importation of food to supplement domestic food production, and one of the single most important food commodities in the country's food import basket is rice, which import quantity and value, on an annual basis, presently stand at over 1,000,000 metric tons and \$300 million respectively. Going further, rice is one of the widely grown and consumed cereal crops in Nigeria, with per capita consumption of between 3.5 kg and more than 14 kg per year per household. However, there has been accelerated growth in rice consumption in Nigeria. For example, per capita consumption during the 1980 decade averaged 18 kg while it was estimated to have reached 22 kg between 1995 and 1999. Since the mid-1980s, rice consumption has increased at an average annual rate of 11%, of which only 3% can be explained by

population growth. The remainder represents a shift in diet towards rice at the expense of the coarse grains (millet and sorghum) and wheat, and other traditional staples such as garri and yams. More so, an estimated 2.1 million tons of rice are consumed annually. The World Bank cited in FAO (2012) reports that rice indeed is no longer a luxury food in Nigeria, and that it has become a major source of calories for the urban poor, adding that the poorest third of urban households obtained 33% of their cereal-based calories from rice, and rice purchases represent a major component of cash expenditures on cereals. Nigeria has comparative resource advantage, in terms of favourable climatic and ecological conditions, in the production of rice for self-sufficiency, but the growth of rice import quantity and value as documented by the Central Bank of Nigeria (CBN) from 1977 remains a cause of concern. This is particularly so because imports are paid for in foreign currency, and given the precarious balance of payments position of the country, especially in the 1980s, rice imports have constituted huge drains to the country's foreign exchange earnings over time. For instance, Akpokodje *et al.* (2001) found out that whereas Nigeria spent only about \$100,000 on rice importation in 1970, by 1999, the value of rice imports had risen to \$259m. They further averred that between 1961 and 1999, Nigeria spent \$4 billion on rice importation alone, giving an annual average of \$102 million, during the period. Several reasons have been adduced for such huge spending on rice importation in spite of the country's capacity to be self-sufficient in its production. Principal among these reasons is government macro and sectoral policies on rice during the pre-ban period, which lowered domestic rice and fertilizer prices relative to world price levels. Specifically, the massive importation of rice between 1975 and 1985 resulting in low price of domestically produced rice; government involvement in distribution and marketing of imported rice with non-transfer of marketing costs to consumers; protection of urban consumers at the expense of farmers thus leading to depressed farm gate prices; protection of producers through input subsidies such that actual input costs were not translated into production decision making process, taken-together were said to have encouraged rice imports (Nkang *et al* 2006). In all, rice importation affects food security in Ayamelum LGA because it reduces the levels of patronage by the consumers. This stems from the fact that the local rice could not compete effectively with the foreign processed rice because of mechanized status of their agriculture. On the other hand, production of rice is capital intensive and the government reneged from her intervention through provision of farm facilities. Because of this asymmetric posture in the needed farm facilities for rice production and the provision of it by the government, the burden was unilaterally born by the farmers thereby making the product to be on the high side considering the cost of inputs and the yielding capacity of the lands. With the importation and corresponding lopsided competition, the

patronage reduced which adversely affect the revenues accruing from the rice produced in Ayamelum LGA. This, among others made rice production venture unattractive, hence, went a long way in making some farmers to abandon the business for better one which eventually culminated in food security challenges in Ayamelum LGA.

Table 5: The Names and Prices of Foreign and Local Rice in Anambra State

Names and Prices of Local and Foreign Rice in Anambra Market				
SN	Local		Foreign	
	Names	Prices (50kg)	Names	Prices (50kg)
1	Abadini Rice	20,000.00	Aani Golden Sella Basmati Rice	70,000.00
2	Anambra Rice	22,000.00	Aeroplane Indian Basmatic rice	75,000.00
3	Big Bull Rice	27,000.00	Cap rice	30,000.00
4	Lake rice	20,000.00	Elephant Pride	26,000.00
5	Mama Gold	23,000.00	Falcon Rice	90,000.00
7	Mamas Choice	16,000.00	My Choice	31,000.00
8	Mamas Pride	26,000.00	My Food Rice	33,000.00
9	Royal Stallion Rice	30,000.00	Riceland American Long Grain	40,000.00
10	Sparkle Rice	30,000.00		
11	Tomato Aroso Rice	29,000.00		

Source: Compiled from PR Nigeria, 2019

The table above showed the names and prices of foreign and local rice in Anambra markets. Decipherable from the table is that we have eleven brands of local rice in Anambra markets whereas foreign rice has nine brands. Observable from the table also is that the prices of local rice range from #16,000.00-#30,000.00 while its foreign counterpart rang from #26,000.00 - #90,000.00 depending on the brand. The cheapest brand of the local varieties is Mamas Choice (#16,000.00) while the costliest among the local brands are Royal Stallion Rice and Sparkle Rice (#30,000.00). The cheapest of the foreign rice is Elephant Pride (#26,000.00) while the costliest is Falcon Rice (#90,000.00).

1. Analysis of Rice Importation in Nigeria and Sustainable Food Security in Ayamelum

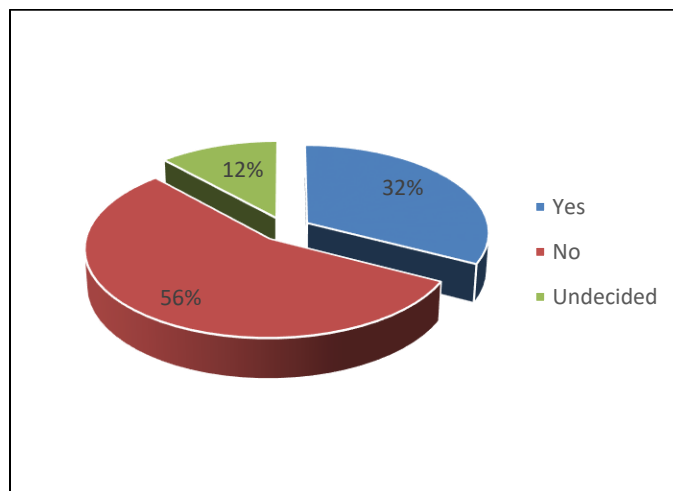
This segment of the chapter dealt with the analysis of our survey field research. The objective here is to provide adequate answers to the research question posed in this study. This segment dealt with rice importation and sustainable food security in Ayamelum LGA.

Table 6: Could Rice Produced in Ayamelum LGA Sustain People of Anambra State?

Responses on Whether Rice Produced in Ayamelum will Sustain People of Anambra State		
Responses	Frequency	Percentage
Yes	116	33
No	198	56
Undecided	42	12
Total	356	100

Source: Fieldwork by the researcher (2023)

Chart 1: Pie Chart Showing Responses on Whether Rice Produced in Ayamelum will Sustain People of Anambra State



Source: Fieldwork by the researcher (2023)

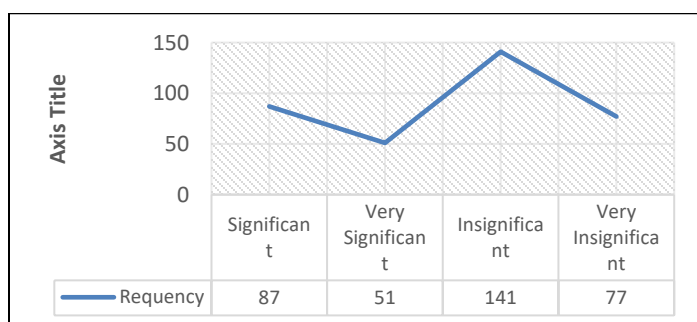
The above table and chart demonstrated the responses of the respondents on whether the rice produced in Ayamelum would sustain the people of Anambra State. Noticeable from the table is that the majority of the respondents numbering 198 and representing 56% of the population said that it would not sustain the people of Anambra State. 116 respondents accounting for 32% of the population stated that it would sustain the people of Anambra State while, the minority of the respondents, representing 12% of the population remained indifferent to the question. From our interview with Mr. Nnachi Nkama Nnachi, a staff of LAIP, he emphatically stated that as it stood then, rice produced in Ayamelum could not sustain the people of Anambra State. Stressing further, he made us to understand that the rice produced in Ayamelum could have sustained the people of Anambra State if and only if the mandates of the Federal government would be maintained. This ranges from the expectations from government and the farmers. On the part of the government, the irrigation should be revived to a functional state, farm facilities should be made available and in a subsidized condition and the training of the farmers should be revisited etc. on the area of the farmers, they should endeavour to acquire the requisite knowledge for rice cultivation and be

susceptible to the dynamism of farming techniques. To buttress further, the table and chart below illustrated the extent of the sustenance of the rice produced in Ayamelum to Anambra State.

Table 7: The Extent of Sustenance of Ayamelum Rice to Anambra State

Responses on the Extent of Sustenance of Ayamelum Rice to Anambra State		
Responses	Frequency	Percentage
Significant	87	24
Very Significant	51	14
Insignificant	141	40
Very Insignificant	77	22
Total	356	100

Chart 2: Line Chart Showing the Extent of Sustenance of Ayamelum Rice to Anambra State



Source: Fieldwork by the researcher (2023)

The above table and chart displayed the extent of sustenance of rice produced in Ayamelum to Anambra State. Discernible from the table and chart is that the available levels of rating are significant, very significant, insignificant and very insignificant. According to the table and chart, the majority of the respondents numbering 141 and represented by 40% of the population averred that the sustenance is insignificant, then 87 respondents accounting for 24% of the population claimed that it is significant. Also, 77 respondents representing 22% of the population maintained that it was very insignificant while the minority of the respondents who are 51 in number and represented by 14% of the population opined that the level of sustenance of rice produced in Ayamelum to Anambra State is very significant. However, the succeeding table and chart dwelt on how to supplement the rice produced in Ayamelum to sustain people of Anambra State.

Table 8: How the Rice Produced in Ayamelum will be Supplemented

Responses on how the Rice Produced in Ayamelum will be Supplemented		
Responses	Frequency	Percentage
By Expansion	178	50
By Importation	98	28
Other Sources	80	22
Total	356	100

Source: Fieldwork by the researcher (2023)

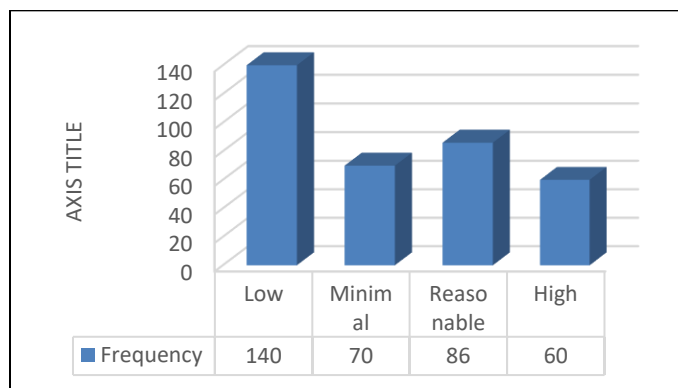
Since the rice produced in Ayamelum cannot sustain the people of Anambra State, it needs to be supplemented. Hence, the table and chart above showed the responses of the respondents on how the rice produced in Ayamelum would be supplemented for the sustenance of people in Anambra State. From the table, we realized that 178 respondents that represented 50% of the population opted for expansion of the production. 98 respondents accounting for 28% of the population suggested importation as a way of supplementing the Ayamelum rice. 80 respondents representing 22% of the population insisted that other sources should be adopted to supplement the Ayamelum rice for sustenance of Anambra State.

Table 9: The Rate of Consumption of Ayamelum Rice in Anambra State

Responses on the Rate of Consumption of Ayamelum Rice in Anambra State		
Responses	Frequency	Percentage
Low	140	39
Minimal	70	20
Reasonable	86	24
High	60	17
Total	356	100

Source: Fieldwork by the researcher (2023)

Chart 4: Bar Chart Showing the Rate of Consumption of Ayamelum Rice in Anambra State



Source: Fieldwork by the researcher (2023)

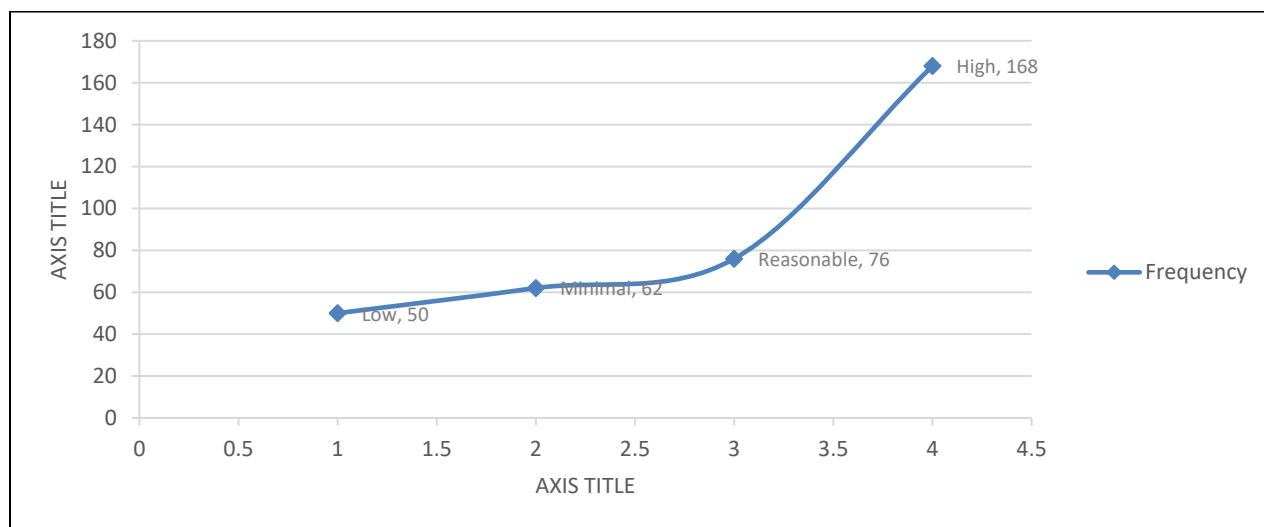
The table and chart above described the consumption rate of Ayamelum rice in Anambra State. From the description, we observed that we have four possible levels of rating which included low, minimal, reasonable and high. Based on these, 140 respondents representing 39% of the population stated that the consumption of Ayamelum rice in Anambra State is low. 86 respondents accounting for 24% of the population claimed that it is reasonable, while 70 (20%) and 60 (17%) respondents affirmed minimal and high rates respectively.

Table 10: The Rate of Consumption of Foreign Rice in Anambra State

Responses on the Rate of Consumption of Foreign Rice in Anambra State		
Responses	Frequency	Percentage
Low	50	14
Minimal	62	17
Reasonable	76	21
High	168	48
Total	356	100

Source: Fieldwork by the researcher (2023)

Chart 5: XY (Scatter) Chart Describing the Rate of Consumption of Foreign Rice in Anambra State



Source: Fieldwork by the researcher (2023)

The table and chart above showed the rate of consumption of foreign rice in Anambra State. Extrapolation from the table and chart is that the majority of the respondents numbering 168, which as well accounted for 40% of the population, believed that the consumption of foreign rice in Anambra State is high. In descending order, 76 respondents, representing 21% of the population suggested that the consumption is

reasonable. In addition, 62 respondents accounting for 17% of the population stated that it is minimal whereas 50 respondents representing 14% of the population opined that the consumption of foreign rice in Anambra State is low. For better understanding of the argument, the succeeding table and chart demonstrated the rate (in number and percentage) of consumption in Ayamelum.

Table 11: The Rate of Consumption of Ayamelum Rice and Foreign Rice

Years	Ayamelum Rice		Foreign Rice		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
2008	114	32%	242	68%	356	100
2009	125	35%	231	65%	356	100
2010	121	34%	235	66%	356	100
2011	96	27%	260	73%	356	100
2012	96	27%	260	73%	356	100
2013	107	30%	249	70%	356	100
2014	114	32%	242	68%	356	100
2015	89	25%	267	75%	356	100
2016	110	31%	246	69%	356	100
2017	89	25%	267	75%	356	100
2018	85	24%	271	76%	356	100

Source: Fieldwork by the researcher (2023)

Chart 6: Column Chart Demonstrating the Consumption Rate of Ayamelum and Foreign Rice from 2008 to 2018



Source: Fieldwork by the researcher (2023)

The above table and chart showed the rate of consumption of Ayamelum and foreign rice. Decipherable from the table is that the consumption of foreign rice in Anambra State is consistently higher than that of consumption of Ayamelum rice. According to the table and chart, it is consumed in the following ratio: 2008 recorded 114 Ayamelum rice consumption, as against 242 foreign rice consumption, it continued in the following order 2009 = 125:231, 2010 = 121:235, 2011 = 96:260, 2012 = 96:260, 2013 = 107:249, 2014 = 114:242, 2015 = 89:267, 2016 = 110:246, 2017 = 89:267 and 2018 = 85:271 respectively.

Conclusion and Prognoses

This study interrogated the nexus between rice importation in Nigeria and food security in Ayamelum LGA of Anambra state. We collected data from primary sources through questionnaire method and structured interview. The data were analyzed through content analysis with the aids of tables and charts. Theoretically, it is assessed through dependency theory, which asserted that the causes of underdevelopment in the third world countries was premature integration into the western capitalism hence suggested that to be free from the wood, there is the need for the periphery countries to delink from the economic folds to actualize development. However, the study is guided by the research question below: Has rice importation in Anambra state undermines food security in Ayamelum LGA of Anambra state?

The questionnaires were distributed to 361 respondents and 356 were returned. The collected data were analyzed from which we found that the importation of rice undermine food security in Ayamelum LGA of Anambra state. This is so because the importation serves as a threat to the farmers for it brings about unequal competition between the local products

and the foreign rice. More so, it causes dependence where the country will depend on foreign rice for their consumption. Rice importation weakens the zeal in the farmers to engage in rice production because it goes a long way in reducing the revenues accruable from the venture. With this development, many of the farmers abandoned the business thereby drastically reducing the population of people who engage in rice farming and in the same vein, reduce the quantity of annual rice production, which definitely manifested in food insecurity. As a way forward, we suggested that the government should intervene in rice production through revival and rehabilitation of the Lower Anambra Irrigation Project in Ayamelum LGA of Anambra state. This will help to ensure steady water supply to the rice farmland because rice yields bountifully in water logged area. The intervention also involves provision and subsidizations of farm inputs such as hybrid seedling, fertilizers, herbicides, insecticides etc. This will help in reducing the cost of local rice thereby enhancing its competitive tendencies in the markets. Finally, the government should contain importation of rice by imposing tax on it. This will go a long way in increasing the cost of imported rice thereby making it unattractive to the prospective buyers. If the above suggestions are taken into consideration, farmers in LAIP will gainfully engage in rice production, which will materialize in food security in Ayamelum LGA of Anambra state.

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