

**AN ASSESSMENT OF THE FOOD SECURITY PROFILE OF PORT HARCOURT AND
OBIO/AKPOR MUNICIPAL COUNCIL AREAS OF RIVERS STATE, NIGERIA AND THE
PROBABLE ECONOMIC IMPACTS.**

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ABSTRACT

The study examined the food security profile of Port Harcourt and Obio/Akpor municipal council Areas in Rivers State, Nigeria. These Council Areas are among the most populated in Nigeria because of the presence of several multinational companies and attracts many individuals across the length and breadth of the country hence the choice of the area for the study. Multistage sampling was adopted in data collection. The area was first divided into two zones. From each of these zones individuals from different strata of society were randomly sampled using structured questionnaire. Descriptive statistics and simple arithmetic were used in analysis. The study identified and classified food insecurity into household food insecurity, adult food insecurity with and without hunger, child food insecurity with and without hunger etc. The results of the study suggest marginal food insecurity among adults and children caused by evident poverty. Poverty alleviation and reduction in income inequality were recommended by the researchers.

Key words: Food, adult, children, hunger, household

INTRODUCTION

Food security implies having access to enough food for a healthy life. On the other hand, food insecurity portrays limited or uncertain availability of good and adequate food or inability to readily acquire adequate food all year round. The above concepts suggest food security is related to food supply, availability and accessibility. Wikipedia (2017) reporting on a world conference proceeding in 1974, defined food security with emphasis on food supply all-year round. From the deliberations in this conference, food security points to availability at all times of adequate supply of basic foodstuffs. Later redefinitions it noted added economic issues to the definition and stated that presently, it is accepted that food security "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life".

Food security is not sufficient food supply to a people but the possibility of accessing it. Jayne (1995) indicated that between 20% to 30% of human population consume less than 80% of the needed calorie even when food supply exceeds 100% of requirements. Food availability as presented by FAO may be a veritable tool for analysis, it is not however

an indication of the distribution or supplies. Consequently, food availability is of limited relevance in the study of the dynamics of food consumption at household level (Lebailly and Muteba, 2011).

The concept and analysis of food security have gone from too much focus on availability or supply to a problem of demand and access, regularity and quality of food (FAO, 2006). The concept of food security is also varied because of the multiplicity of views relating to the causes and consequences of food insecurity, and the effects of economic, social, political and environmental outcomes. Complexities also arise because of multidisciplinary perceptions of food security research fields. Varied discusses on food security and paradigms compete for dominance, resulting in conflicts over terms and concepts (Hendriks, 2015).

The U.S. Department of Agriculture (USDA) posits the concept of food security measures a household's social and economic ability to access adequate food. On that note, the most common cause of food insecurity should be poverty (Meisenheimer, 2014). There is also, no generally accepted measure of social and economic abilities. All these vary across our geographical divide. Accordingly, household food security seems to be a varied concept; it is largely due to limited purchasing power, availability and supply among others. Households are not food secure when the means of making a living are inadequate and there is the absence of capacity to take care of competing needs. Food security is not just a case or question of availability of food in the market but also of purchasing power. In recent times, food security issues are evident in the soaring prices of basic commodities and not on their availability.

Nigeria in general and the Niger delta in particular may present worrisome case studies with respect to food security. Despite huge agricultural potentials, the Niger delta is significantly dependent on food imports from other parts of the country. Agricultural produce of this region is reasonably supplemented by imports from the North of the country. However, the landing price of these food materials in the Niger delta is prohibitive and technically beyond the reach of the majority of the population. Economic and political agitations in the region are responses to very low wages. The food may be in the market but highly

inaccessible to those who need it because they are largely unaffordable. This is a challenge for the multitude of people in the Niger delta. Succinctly put, the food insecurity is not caused by unavailability but inaccessibility.

PROBLEM STATEMENT

According to Thomas Reuters Foundation (TRF, 2014), one in nine persons go to bed hungry every night in the world. This implies that billions of persons are under the grip of hunger every day. However, many scholars agree that enough food is produced globally. Why then this hunger siege? The uneven distribution of food is a major cause among many. It is estimated that more than 850 million people are living daily on less than the recommended amount of nutrition (Cunningham, 2016) because of uneven distribution.

Cunningham (2016) perceives human population growth as another cause of food insecurity. From this report, the overall human population is projected to reach several billions by 2050. This will lead to serious strain on the availability of food; accentuating this may induce food insecurity as population grows. The report suggests human population growth will be prominent in poor countries and this will further worsen access to adequate food. Sadly, a greater proportion of poor countries are in Africa, Nigeria inclusive. Evidently, the rising population figure of Nigeria and economic projections may aggravate food insecurity because the amount of food that can be accessed will further reduce in the face of staggering poverty. Eric (2016) in the same vein pointed out that the Sub-Sahara Africa has grown from 230 million in 1961 to 673 million in 2000. This is 292% increase over 39 years. Nigeria accounts significantly to this growth. However, domestic food production is lagging behind in the region. Eric (2016) further hinted that Africans produce export crops (coffee, cacao, cotton) which are used to pay foreign debts, while revenues from industry are used to import food. The banks from this report, wrongly insist that this strategy will increase family incomes, guarantee economic security and lower population growth rates. However, it was shown that the urban population grew from 18% to 33% and millions of the poor and unemployed migrate to the cities and live mostly in the slums. In the rural areas, as plantation agriculture for export grew, food crop production declined and poverty grew, leading to food insecurity.

Enough food may have been produced; however, people do not have enough cash to buy the food. The price regime is beyond their reach and evidently priced out of the market. Income insecurity among others may have contributed to food insecurity and a significant factor limiting people's ability in the quest to ensure adequate food supply. Contemporary

events suggest food insecurity may not be the case of unavailability only, people cannot afford it adequately. Poverty also reduces food production. The increase in population may not be the cause of food insecurity; poverty fueled by wrong government policies may have put the agricultural sector and food security in limbo. Poverty will reduce productivity in all sectors of the economy including agriculture.

Production of food will be constrained where peasant agriculture is a norm. Niger Delta farmers' harvests are small because of subsistent agriculture; government assistance has principally been inconsistent and a case of window dressing. The inability to afford needed factors used in agriculture remains a huge limitation in the ability of Niger Delta farmers to produce enough food and feed the region.

City life has become very attractive, robbing the agricultural sector of needed farm labour. In recent times, rural-urban migration is seen to be significant and will yet increase. Urban development and expansions have encroached reasonably on agricultural lands reducing the proportion of available land for agriculture. This has impacted negatively on food supply for the ever growing city population. The decline in food supply will further push up food prices higher than what the ordinary and common man can afford. Eric (2016) believes the crisis of food price inflation is simply a tip of a slow-moving iceberg. Rural-urban migration must be curbed by making rural life comfortable and agriculture more appealing.

METHODS AND MATERIALS

Rivers State is located in the Niger Delta region of Nigeria, a region that cuts across three of the six geo-political zones that make up Nigeria and made up of nine states. In the south-south geo-political zone, Rivers State plays prominent role as the epic centre of Nigeria's petroleum industry. Port Harcourt and Obio/Akpor local government Areas harbor the highest population of people in the Niger Delta, attracted by the presence of several multinational oil companies. This informed the choice of this area as the study centre. Multistage sampling was adopted in data collection. The area was first divided into two zones. From each of these zones individuals from different strata of society were randomly sampled. Descriptive statistics and simple arithmetic were used in analysis.

RESULTS AND DISCUSSION

1.1 Household Food Insecurity

This section of the study considered aspects of food insecurity. A pattern designed and developed by Cook and Jeng(2009) was adopted in questionnaire design to capture a panoramic view of food insecurity in the study area. The results of the study

are thematically discussed below as observed in the field. Food insecurity is an important social and public health issue with degrees of variation in its effects on either individuals or social groups. It is therefore imperative that it is understood how the patterns of food insecurity has shaped our social order. Topically, Strickhouser et al(2014) identified

four key terms in the definition of food insecurity: access, sufficient quantity, affordability and nutritious. Of these factors, it is believed "affordability" has received the most attention. The researchers think this perception is reflected in the study Area as shown and discussed in table 1.1 below.

Table 1.1: Household food insecurity in the study area

ITEMS	FREQUENCY	PERCENTAGE
Q1. Do you worry whether your food will run out before you get money to buy more within the last one year?		
Answers:		
1. Often	5	10
2. Sometimes	36	72
3. Never true	6	12
4. Always	3	6
Q2. Did your food not last at anytime and you had no money to buy one in the last one year?		
Answers:		
1. Often	12	24
2. Sometimes	23	46
3. Never true	14	28
4. Always	1	2
Q3. Do you find it difficult to afford balanced diet?		
Answers:		
1. Often	6	12
2. Sometimes	38	76
3. Never true	4	8
4. Always	1	2
5. Un indicated responses	1	2
Total	50	100

Source: field survey, 2017

The study shows that about 72% of the respondents worry their food may run out before they can access money to buy more. This suggests evidences of food insecurity within the study area and, that the larger percentage of the respondents are involved in this incidence paints a worrisome scenario and creates impression that these communities are vulnerable, poor and, food though may be available, is however not easily accessible perhaps because of high food prices. 46% reported running out of food at times and had no money to replace their stock within the study period and 76% of the sample could not access balanced diet. All these point to poverty induced food insecurity in the area. People living in poverty oftentimes are not able to produce or buy enough food and have a higher rate of susceptibility to diseases and sicknesses. Sick people have a lower value of productivity in the economy (Ilaboya, 2011) According to the National Coalition for the Homeless (NCH)(20011), hungry people exhibit certain symptoms that have both social and economic implications. These are: gastrointestinal distress;

dizziness; headaches; hypersensitivity to noise, light, and cold; reduced strength; and poor motor control. Others are cognitive changes such as impaired concentration, reduced alertness and comprehension and, poor judgment. This combined team of effects can limit the economic potential of any individual and should be studied further. NCH (2011) believes that without health insurance, nutrition inadequacies can create huge health care bills, and the need to regularly put food on the table can limit a family's abilities to pay them off.

1.2 Feeding Frequency

This section peered into the respondents feeding frequency to ascertain further evidences of impaired access to food and why. It is known that food insecurity is the inability to have regular access to adequate nutritious food for a healthy life. Levels of food insecurity can be differentiated based on the duration and severity of the periods. In the U.S.A, food security implies that the food is physically available in the local food system and the households

have sufficient financial resources to purchase it. Thus poverty is the major proximal cause of food insecurity not only in the U.S. but also elsewhere (Cook and Jeng, 2011). The revelations in table 1.2

suggest this effect. No society is impervious to the possibility of food insecurity, however the level differs. Table 1.2 shows the prevalence of food insecurity in the study area.

TABLE1.2: Feeding frequency

ITEMS	FREQUENCY	PERCENTAGE
Q1. How many times do you eat a day?		
Answers:		
1. 1 meal	1	2
2. 2 meals	27	54
3. 3 meals	21	42
4. Unindicated responses	1	2
Q2. If you eat less than 3 meals a day, what could be the possible reasons?		
Answers:		
1. Deliberate	10	20
2. Can't afford 3 meals	15	30
3. Too busy	11	22
4. On health grounds	1	2
5. Unindicated responses	13	26
Total	50	100

Source: field survey, 2017

A total of 54% of the respondents were able to have two meals a day and 30% percent of them limited themselves to two meals a day because they could not afford three meals. Skipping of meals within the household could be because the family does not have enough money to purchase food as suggested by the study. Food insecurity and hunger that are specifically related to limitations in terms of household resources could be referred to as "resource-constrained or poverty-related" (Cook and Jeng, 2011). Food insecurity has a number of evident health effects such as delayed development in physical and mental health. Food purchases on a constrained budget often compel families to buy foods that are very high in calories such as fats or sugars instead of foods that are high in nutrients but costlier. This can affect physical health and may lead to problems of obesity.

1.3 Household Food Insecurity with Adult Hunger

In less severe cases of food insecurity household members may worry about obtaining foods. However, adjustments to household food management such as reductions in diet quality and purchase of less-expensive foods may be an option. There may be little or no reduction in the quantity of food intake at this level of food insecurity, but micro-nutrient deficiencies (hidden hunger) are common.(Cook and Jeng,2011). This is a case of food insecurity without hunger displayed in table 1.3 and discussed below based on field observations.

Table 1.3: Food insecurity without hunger

ITEMS	FREQUENCY	PERCENTAGE
Q1. Did you ever reduce the size of your meal or skip meals because there was not enough money for food in the last one year?		
Answers:		
1. Yes	35	70
2. No	15	30
Q2. If yes in question 1, how often did this happen?		
Answers:		
1. Almost every month	10	20
2. Sometimes	21	42
3. Only in 1 or 2 months	6	12
4. Un indicated responses	13	26

Q3. In the last one year, have you ever eaten less than you felt you should because there wasn't enough money for food?

Answers:

1. Yes	37	74
2. No	13	26

Q4. In the last one year, have you ever been hungry and did not eat enough food?

Answers:

1. Yes	24	48
2. No	26	52

Q5. In the last one year, did you lose weight because you did not have enough money for food

Answers:

1. Yes	17	34
2. No	33	66
Total	50	100

Source: field survey, 2017

Response to the questions posed to the respondents revealed mild food insecurity in some homes. There was about 70% Cases of skipping meals. Not eating enough or losing weight etc are evidences of food insecurity in the locality, however, there was something to eat. 42% of the respondents nevertheless stated that the experience was seldom. That it occurred was a pointer that all were not well in terms of calorie and nutrient intake. Seventy four percent of the respondents' reports suggest reasonable poverty in the study Area because they had to skip meals not because of food unavailability but because they could not afford it. The picture suggests poverty induced food insecurity.

1.4 Food Insecurity with Adult Hunger

Hunger is the unease or pain sensations caused by the absence of food in the stomach and occur when food intake is reduced below normal levels. Everyone experiences hunger once in a while however; it becomes a social problem when the resources to seek food and satisfy the pang are either limited or not available or accessible due to lack of resources (Cook and Jeng, 2011). This section of the study examined the existence of these experiences among the adult sample in the study area. The results are shown below in table 1.4

Table 1.4: Food insecurity with adult hunger

ITEMS	FREQUENCY	PERCENTAGE
Q1. In the last one year, did you as an adult ever not eat for a whole day because there was not enough money for food?		
Answers:		
1. Yes	8	16
2. No	38	76
3. Un dicated responses	4	8
Q2. If yes to question one above, how often did this happen?		
Answers:		
1. Very often	1	2
2. Often	4	8
3. Few cases	14	28
4. Un indicated responses	31	62
Total	50	100

Source: field survey, 2017

The researchers strongly believe many of the respondents shied away from this section because they felt embarrassed admitting the obvious.

However, 16% of the respondents reported not eating for a whole day in some cases because they could not afford it. Eight percent reported having this

experience very often and 28% reported having it once in a while. This aspect of food insecurity is also poverty induced. Cook and Jeng(2011) reported that as food insecurity increases in severity, adults in a household often would reduce their amount of food intake because they tend to ration their food to shield the children from the effects of food insecurity. The report indicates that children may not generally experience hunger at this level of food insecurity, however, their diets may tend to be extremely poor in nutrients. Strickhouser et al (2014) reported that food insecurity is mostly prevalent among the lowest income group ie the very poor groups and declines as we move up the wrung of economic class noting that this is a consistent pattern in all age groups. Even when individuals do have food, the quality may not meet the nutritional needs (hidden hunger). Summarily, unmet needs like Food and the adequacy of the nutritional composition of those foods were judged to be strong and detrimental factors determining older adult health. Citing Alley et al. (2009), RTI International (2014) and Stuff et al(2004) Strickhouser et al (2014) pointed out that food

insecurity is a significant predictor of health problems like heart disease, cancer, stroke, pulmonary disease or diabetes identifying poor nutrition as a cause of illness which can lead to emotional distress (especially depression) and lower scores on physical and mental health exams.

1.5 Children Food Insecurity without Hunger

According to McBurney(2016), When individuals cannot make plans based on regular availability of food, they tend to make poor immediate choices that have long term consequences. Children specifically are vulnerable because they depend on their caregivers (the adults). According to this report, food insecurity is associated with obesity in children probably because of the intake of calorie laden foods of low nutrient content. Household food insecurity involves an adult within the household making personal concessions such as cutting down on size of meal, eating less, skipping meals etc because the family hadn't enough money for food. Table 1.5 presents the results of field survey on children food insecurity without hunger.

Table 1.5: Children food insecurity without hunger

ITEMS	FREQUENCY	PERCENTAGE
Q1. Have you been relying on a few kinds of low cost food to feed your children because you were running out of money to buy food?		
Answers:		
1. Always	1	2
2. Sometimes	29	58
3. Never true	16	32
4. Often	1	2
5. Unindicated responses	3	6
Q2. Do you find it difficult to feed your children balanced meal because you could not afford it?		
Answers:		
1. Often	0	0
2. Sometimes	31	62
3. Always	4	8
4. Never true	13	26
5. Unindicated responses	2	4
Q3. Were the children not eating enough because you could not afford enough?		
Answers:		
1. Often	4	8
2. Sometimes	24	48
3. Never true	20	40
4. Always	0	0
5. Unindicated responses	2	4
Q4. Have you ever cut the size of your children's meals because there was not enough money for food?		
Answers:		
1. Yes	28	56
2. No	20	40
3. Unindicated responses	2	4

Q5. In the last one year, were the children ever hungry but you could not afford more food?**Answers:**

1. Yes	15	30
2. No	32	64
3. Unindicated responses	3	6
Total	50	100

Source: field survey, 2017

Fifty eight percent of the respondents relied on low cost foods to feed the children because of paucity of fund and 62% of the children had no access to balanced diet for same reason though not very often. Forty eight percent reduced the food intake of their children because of inadequate fund, 56% did cut size of the children's meals. This may be a case of marginal food insecurity within the study Area. Ilaboya(2011) reported that in developing countries, about 13 to 18 million people, mostly children, die because of hunger, malnutrition and poverty constituting about 40,000 people a day or 1,700 people an Hour. Further research may provide the statistics of children whose health may have been compromised because of this development. Cook and Jeng(2011) suggests that as the severity of food insecurity increases, adults in a family may often reduce their food intake so much that they sometimes experience the physical sensation of hunger. This is adopted to shield the children from the effects of food insecurity. It is expected that children may not generally experience hunger at this level of food insecurity, however their diets may be very poor in nutrients. This development may affect the development of the children with long term impact and also on the society at large. The National Coalition for the homeless(2011) reported that significant predictors of how a child's development pathway will tilt is the parents' mental states noting

that parents who forgo eating full or healthy meals so that their children might eat better may develop physical and psychological health issues. While this may guarantee better health for the children, it may result in the parents becoming aggressive, irritable, and distressed, which may significantly affect the development and psychological health of their children the report asserted.

1.6 Children Food Insecurity with Hunger

Trends in Nigeria's food insecurity levels seem to parallel national poverty level. Food insecurity this study seems to suggest may be inherently connected with income. This may have become apparent during the recent spell of economic recession. Families experiencing food insecurity may be increasing since the current economic crisis began in 2015/2016. This section of the study peered into cases of children food insecurity with hunger. This should not be confused with the preceding section where children ate but not enough, children here experienced hunger pangs because of food and fund inaccessibility. General studies in food security tend to suggest that people are hungry not because of food scarcity, but affordability. The results of the study as presented in table 1.6 below seem to be in agreement.

Table 1.6: Children food insecurity with hunger

ITEMS	FREQUENCY	PERCENTAGE
Q1. Have any of your children ever skipped a meal because there was not enough money for food?		
Answers:		
1. Yes	24	48
2. No	24	48
3. Unindicated responses	2	4
Q2. How often did this happen?		
Answers:		
1. Almost always	4	8
2. Some months	22	44
3. Never true	10	20
4. Unindicated responses	14	28
Q3. In the last one year did any of the children ever not eat for a whole day because there was not enough money for food?		

Answers:

1. Yes	4	8
2. No	44	88
3. Undicated responses	2	4
Total	50	100

Source: field survey, 2017

Forty eight percent of the respondents reported the children sometimes skip meals because they hadn't the money to purchase food and 44% reported having this experience even for months through the year. This may be a case of significant poverty and calls for further investigation. Cook and Jeng(2011) opines that in severe cases of food insecurity, caregivers may reduce children's food intake to the extent that the children may experience the physical sensation of hunger. National Coalition for the Homeless (2011) posits that children that regularly experience hunger may have poor health, behavioural and emotional inadequacies, and problems socializing with peers. Cases of obesity among children who are food insecure are also very common because of low quality of the food given. The study pointed that children who are obese may suffer asthma, respiratory problems, diabetes, low self-esteem, and even much higher rates of suicide. Cognitive inadequacies were also reported among children in kindergarten who are malnourished since it has been shown that they do very poorly in math tests, learn less at the beginning of their educational journey with significant handicap. Literature over the decades shows that food insecurity and hunger with other correlates of poverty can significantly impair the functionality of children's brains, making it difficult for them to attain their potential. people that experienced hunger as children are not always well prepared physically, mentally, emotionally or socially to perform optimally, they create a labour force that is comparatively less competitive, have lower levels of educational and technical skills(Cook and Jeng,2011). This implies that hungry children may suffer developmental impairment that limits their reaching full potential in all facets of life. According to Shonkoff(2011) " The healthy development of all children benefits all of society by providing a solid foundation for economic productivity, responsible citizenship, and strong communities."

1.7 Consequences of Food Insecurity

Effective reduction in hunger will depend on the alleviation of poverty, because poverty is a causative factor of hunger and hunger on the other hand, is one of the symptoms of poverty. Even when efforts are aimed at making food available, improving on food production or its distribution, the root cause of hunger (poverty) will still remain. Political solutions may be required for effective long term hunger alleviation (Shah, 2014). This is reasonably so

because food availability does not mean accessibility. Many inter-related factors that cause hunger are related to economics and solving hunger problems using conventional means (of producing and providing more food) may not be a most probable solution to poverty. There may be the risk of continuing poverty without realizing it, since providing more food can appear to be altruistic. Solving hunger problem in the long run will require poverty alleviation, if this is precluded in the plan, dire economic consequences become inevitable.

The most appealing response to food insecurity is a call for food aid. This can bring unpleasant consequences to the economy of the recipient country if it is not for an emergency case because it can lead to more hunger and poverty. Food if made available below market price (Free, subsidized, or cheap) short changes local farmers who are not competitive and driven out of their means of livelihood into poverty. Many developing nations depend on farming, and food aid amounts to food dumping (Shah, 2014). This may have dire economic consequences in the local economy, making it less productive and dependent on uncertain and unpredictable external assistance which quite often has damaging political undertone.

Cook and Jeng(2011) compare food security to health and sees it as an important form of human capital, a critical input to the production of other forms of human capital like good health, physical development and growth, social skills amongst others noting that food secure families accesses balanced food that ensures good healthy growth and development(human capital formation) in their children while food insecurity may mean a shortage or absence of these that may be essential for optimal formation of human capital in children. The duo also commented on the costs of food insecurity. Directs costs like expenditures on public and private food assistance systems, costs of medical care for illnesses or conditions resulting from food insecurity amongst others. Such costs also include the costs of professional care for health and development problems resulting from food insecurity. Indirect costs were also pointed out and include the cost of specialised education need expenditures that arise due to the effects of food insecurity on children's physical and mental development, academic performance and educational attainment. The most profound indirect cost on society resulting from food insecurity is the loss or reduction in human capital in the overall workforce.

POLICY RECOMMENDATIONS

The food insecurity observed in the study area seems to have a strong link to income. The low income group the study suggests are likely to experience food insecurity because of paucity of fund (low income) and other intricate and interrelated issues they must confront just to eat a meal. Therefore, the most important policy to counter hunger and food insecurity in the study area is to reduce income inequality and distributions, to enable those at the bottom of the economic scale eke out a decent living. Several government programs already in existence can effectively tackle this if the political will is mustered. The most viable for now may be the development of the agricultural sector (which can boost local food supply and lower food prices thus making food more accessible outside employment opportunities it will offer if a labour intensive method of agriculture is adopted as an interim method and measure); experience however has shown the embarrassing levels of inconsistencies in similar policies.

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