

THE EFFECT OF FLOOD ON FOOD SECURITY OF RURAL WOMEN IN OGBARU LOCAL GOVERNMENT AREA OF ANAMBRA STATE

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ABSTRACT

The last three decades have witnessed shortage of food especially in developing countries of the world. Some of the reasons for this is population pressure and environmental degradation. Nigeria is also saddled with aforementioned problems, which cause food insecurity. Ogbaru Local Government Area in Anambra state experiences flood, which affect food production. This study therefore sought to find out the income generating activities of the Women, the frequency and time of flood and the effect on their income generating activities. Two data collecting instruments were used namely, Focus Group Discussion (FGD) and interview schedule. A sample size of 108 women was used. Eight for FGD and 100 using the interview schedule for questionnaire administration. The result showed that the women were engaged in mainly crop farming and food processing. Flood was experienced every leap year (4 years) between July and September. The income generating activities mainly affected were crop farming, cassava processing, goat and sheep breeding and keeping of local fowls.

INTRODUCTION

Since the last three decades, the issue of food security has been of global concern, especially in developing countries of the world. This is because the rate of population growth outstrips the rate of food production. According to Korthorf and Sterllingwerf (1995), the developing countries have 80% of the World's population but consume only 20% of the Worlds natural resources. There is therefore speculation that if something urgent was not done to reverse the trend, there will be famine of unimaginable proportion with untold catastrophe.

Another reason for food insecurity is environmental degradation, which is catalyzed by population pressure. People exploit natural resources without replacing them. For example trees are cut down for fuel wood and timber without making effort at replacement going by the rate of depletion. Also as a result of insufficient land space, continuous cropping has replaced practice of fallow farming and where fallow still exist the fallow farming periods have reduced from 5-20 years to 1-6 years, especially in south eastern parts of the country. (Eboh 1993).

Nigerian economy, which once depended on agriculture, has now been replaced by oil. With the oil boom the 70s, a lot of money came into the country. There was great exodus of young men in particular to the cities in search of white-collar jobs. This affected the labour force for agriculture in the rural areas that invariably affected food production in the country since most foods consumed were produced by the rural dwellers. The oil boom also resulted in oil spills, which polluted both land and water affecting agricultural production adversely.

Natural disasters like water and wind erosion, flood, landslides and earthquakes have further affected food production. In some cases these forces are catalyzed by human activities like over-grazing, mining and de-vegetation. The degree and type of degrading forces vary from place to place depending on factors like vegetation, topography, soil, rainfall and socio-economic activities of the people. In Southeastern and southwestern Nigeria the problem is mainly erosion, while northern Nigeria is faced with the problem of desertification, wind erosion and occasional draught (Eboh, 1995).

The most prominent environmental problem in Anambra state is water erosion, which affects all the 144 autonomous communities in the state in varying degrees (NEST, 1995). The study area, Ogbaru Local Government is affected by sheet erosion. There is however the problem of flood, which is a natural disaster that may affect people adversely. It is thus this problem of flood that necessitated this study on the extent to which it affects food security of the people of Ogbaru L.G.A. Since women represent 70% to 80% of agricultural labour force (women in development 1994) this problem will be best viewed through the spectacles of women since they are most affected by degrading forces since they depend on land for sustenance. Against this backdrop the objectives of this study were to:

1. discover the income generating activities of rural women in Ogbaru L.G.A and determine their level of importance.
2. find out the frequency of flood, the years and the time of the year.
3. determine the effect on their income generating activities.

MATERIALS AND METHOD

Ogbaru Local Government Area is located in the south west of Anambra state. It is bounded by Onitsha L.G.A in the north, River Niger in the south and west, Idemili south, Ekwusigo and Ihiala L.G.As in the East. The Local government headquarters is located in Atani. It has a total population of 191,761 with women population of 94,197 and male 97,564 (1991 census figures). The local government is largely rural with farming as their main occupation. They farm on islands in the river Niger as well as on the hinterland. The alluvial soil deposited by flood is very rich for crop production. The theft of crops in the olden days by the Bachamas of Benue state made the Ogbaru people move from the hinterland to settle by the coast to enable them safe guard their crops.

Sample And Sampling Method

The population for this study consists of all rural women in Ogbaru Local Government Area (L.G.A) of Anambra state. Seven villages were selected using alternative sampling method (the population is arranged in descending order of magnitude the 1st is used, 3rd, 5th and so on). The number of respondents used in each village was determined by the use of proportional sampling method. The women interviewed were randomly selected from each village. This resulted in a sample size of 100 women. Table 1 shows the names of villages from which respondents were selected, the women population and the sample size.

Table1: village sampled, women population and sample size

S/No	Villages	Women population	Sample size
1.	Ogwu – Ikpele	3,850	32 (32%)
2.	Ochuche – Umuodu	2,336	19 (19%)
3.	Atili – Ogidi	1,926	16 (16%)
4.	Umunaukwo	1,576	13 (13%)
5.	Umuzu	1,108	9 (9%)
6.	Onita	701	6 (6%)
7.	Ogwu- Anicha	637	5 (5%)
	Total	12,134	100 (100%)

Source: 1991 census figures

Data Collection Instruments And Procedures

Two data collection instruments were used. They were Focus Group Discussion (FGD) and interview schedules. Two enumerators were trained to help in interviewing respondents. One of the enumerators covered Ochuche-Umuodu (19), Ogwu- Anicha (5) and Ohita (6), the other covered Akili- ogidi (16), Umunaukwo (13) and Umuzu (9), while the researcher covered Ogwu- Ikeple (32).

The FGD discussion was used to elicit more in-depth information and fill information gaps that occurred in the questionnaires. The FGD was carried out using 8 women that were not part of the sample for the administration of the interview schedules. The women were members of Anibueze women Group. This group is an agricultural cooperative group. In all 108 respondents were used for the study.

Data Analysis Techniques

Descriptive statistics such as frequency counts, percentages were used to organise and present the data collected from the administration of the interview schedules. The consensus method was used to determine the most valid information from the FGD (the information that all or most of the women collaborated).

RESULTS AND DISCUSSIONS

1. Income Generating Activities: The income generating activities of rural women in Ogbaru L.G.A were sought. Table 2 shows the income generating activities and the percentage of women involved in each activity.

Table 2 showed that the women were mainly engaged in cassava processing (95%), crop farming (90%) keeping of local fowl (76%), leafy green vegetable farming and sale (69%) and goat breeding (41%). This result showed that the main income generating activities of the rural women were crop farming, food processing and animal husbandry. The main livestock kept were local fowls and goats.

Table 2 : Income generating activities and level of women involvement

S/No	Income generating activities	Level of Involvement	
		Frequency	Percentage
1.	Crop farming	90	90
2.	Cassava processing	95	95
3.	Palm oil processing	30	30
4.	Breadfruit processing and sale	25	25
5.	Oil bean processing and sale	10	10
6.	Sale of Leafy green vegetable	69	69
7.	Sale of grain	30	30
8.	Sale of provisions	15	15
9.	Sale of water	5	5
10.	Sale of fuel wood	3	3
11.	Sale of kerosene	10	10
12.	Basket weaving	10	10
13.	Hair plaiting	5	5
14.	Dressmaking	6	6
15.	Food vending	7	7
16.	Keeping of local fowls	76	76
17.	Keeping of improved breed fowls	0	0
18.	Goat breeding	41	41
19.	Sheep breeding	16	16

Source: field survey (2004)

The result of the FGD confirmed that the women were engaged mainly in aforementioned agro-based activities. Even those involved in non- agro based activities like food vending, dressmaking, hair plaiting, basket weaving, and sale of provision, grains, water, kerosene and fuel wood also farmed in most cases. Only very few of them were involved solely in non-agro-based income generating activities. It was also established that their main crops were cassava and vegetables.

2. The frequency of flood: From the questionnaire response and FGD, there was an agreement that severe flood occurred every leap year (4years). This happened between July and September. This was a result of the overflowing of the river Niger. However by September the water starts to recede.

3. The effect of flood: Flood affected some income generating activities negatively while some were not really affected. Table 3 shows the effect of flood on the income generating activities of rural women in Ogbaru Local Government Area (L.G.A).

Table 3: The effect of flood on the income generating activities of rural women in Ogbaru L.G.A

Income generating activities	Negatively affected		Not affected	
	Frequency	%	Frequency	%
Crop farming	90	100		
Cassava processing	95	100		
Palm oil processing	30	100		
Keeping of local fowls	76	100		
Breadfruit processing	10	40	15	60
Goat breeding	41	100		
Sheep breeding	61	100		
Sale of leafy vegetable	50	72.5	19	27.5
Sale of grain	13	43.3	17	56.7
Sale of provision	9	60	6	40
Sale of water	1	16.7	5	83.3
Sale of fuel wood			3	100
Sale of kerosene			10	100
Basket weaving	2	20	8	80
Hair plaiting	3	60	2	40
Dressmaking	6	100		
Food vending	6	85.7	1	14.3

Source: fields survey, 2004

Table 3 showed that the main income generating activities were negatively affected by flood. Crop farming, keeping of local birds, palm oil processing, cassava and breadfruit processing, goat and sheep breeding and leafy vegetable farming were (100%) affected by flood. The non agro-based ones likes sale of provision, water, fuel wood, grains and kerosene, basket weaving, hair plaiting, dressmaking and food vending are not completely affected adversely.

From the FGD, the Odekpe women had this to say: “ Our main problem is the overflowing of the River Niger. The flood destroys our crops. This happens every four years. When it happens we do not have food to eat or seedlings for the next planting season. But when there is no flood we have good harvest.”

The FGD confirmed the destruction of crops as a result of flood during the flood years. The years after the flood years were always very difficult in terms of agricultural inputs like seedlings and cassava stems.

The volume of foods to be processed reduced as a result of poor harvest. The forest from which fuel wood was got was flooded and therefore dangerous to enter. This reduced the availability of fuel wood and made it expensive while the demand for kerosene increased. Fuel wood is used for processing cassava into garri and palm fruit into oil. Invariably these two processing activities were highly affected by flood. The processing of breadfruit not as severely affected because little heat is applied in processing that is before de-husking.

Local fowl, goat and sheep got drowned in the flood (FGD). The fowls were left completely free range while the sheep and goats were sometimes tethered. These animals were evacuated to relations who lived further away from the flood areas. Most times, all of them were not recovered at the end of the flood.

The women who sold grains, fuel wood, water and kerosene recorded a rise in their incomes, 56.7%, 100%, 83.3% and 100% respectively. The decrease in farm produce must have made the people more dependent on foods brought from other parts of the country. Some water sources like springs were stilted, (FGD) so people had to buy water especially for drinking. The demand for kerosene and fuel wood increased as a result of the inability of the women to obtain enough fuel wood from some of their farms. Dressmaking, hair plaiting and food vending dropped.

Table 4 further confirms the information in Table 3 on the effect of flood on the income generating activities of rural women in Ogbaru Local Government Area (L.G.A.). The income from cassava, maize, leafy vegetables, rice, okro, sweet potato, melon reduced significantly in flood years. The income from water, kerosene and fuel wood increased in flood years. Apart from the crops destroyed by flood, those that were harvested were taken to the market to be quickly disposed of. As everybody harvested at the same time in a hurry there was always a market glut, which forced the market price down and created further loss.

From the FGD it was gathered that the rich harvest during the non-flood years is as a result of the deposit of alluvial soil left by the flood. This is very rich in soil nutrient and therefore led to very good harvest.

Table 4: Income from different income generating activities

Income sources	No. of women	Total yearly income in non flood year (2003) in ₦	Total yearly income in flood year (2004) in ₦
Cassava	100	16,710,000	5,590,000
Maize	100	789,000	62,524
Breadfruit	41	130,800	128,226
Leafy- vegetable	100	2,130,800	114,050
Rice	80	4,048,800	2,870,350
Avacado pea	50	60,000	60,000
Ogbono	71	1,785,000	1,785,000
Orange	100	305,000	305,000
Okro	40	25,000	15,000
Paw-paw	34	15,000	15,000
Sweet potato	36	84,000	41,000
Native pea	32	36,000	36,000
Melon	69	97,600	62600
Banana	33	18,000	17,500
Dress making	11	133,835	81,550
Hair plaiting	9	124,125	93,400
Water	10	86,261	132,000
Kerosene	15	262,210	424,000
Fuel wood	30	90,750	133,838

Source: field survey (2004)

Conclusion

The result of this study showed the constraints in income generation of rural women in Ogbaru LGA as a result of flooding, which occurred every 4 years. The flood affected mainly the income from crop farming and food processed from those crops affected, while the income from some other income generating activities like sales of kerosene, water, fuel wood and grains increased. There is also a decrease in income from dressmaking, food vending and hair plaiting. Animals and birds are also lost because of the inability to recover all from relatives who they were kept with. Market loses due to glut is an important factor. The flood also helps to maintain soil fertility as a result of the rich alluvial soil deposit. This reduced the price of agricultural inputs since there was no need to buy fertilizer as the case in many areas.

Since the incident of flood is likely to continue occurring, there is need for extension agents to help the women anticipate it by suggesting early maturing crops, which can be harvested before the flood in flood years. In this way, loses can be minimized or completely avoided. This will help in ensuring stability in food production and the income of rural women.

With the rapid population increase, there is need to maintain the level of food production and income generation to meet the population growth. This will help in achieving food security.

References

- Eboh, E. C. & Obiechina, C. O. B. (1993b) "Farm Level Technologies for Coping With Shortening fallows. Their Applications and Impact in Smallholder Agriculture: A case study of Enugu State." *Productivity: A Quarterly Journal* Vol. 34, Jan – March, No. 4, p. 704.
- Eboh, E. C. (1995) "Poverty, Population Growth and Environmental Degradation: A Vicious Cycle of Human Misery." In Eboh E., C. Okoye and D. Ayidu (Eds.) *Rural Development in Nigeria*. Auto-Century Pub. Co., Ibadan. Pp. 273 – 274.
- Korthorf, H. and Stellingwerf, W. (1995) "The Environmental Crisis." *At Source*. Vol. 18, No. 2, pp. 1 – 6.
- National Population Commission (1994) *Facts and Figures About Nigeria*. Prompt Enterprises (Nig.) Ltd., Lagos, 15p.
- Nigerian Environmental Study/Action Team (1995). *Nigeria's Threatened Environment: A National Profile*. NEST, Ibadan.
- Women in Development (1994). *The Status of Women in Nigeria*. Cross River Branch, pp. 9 – 17.