EFFECTS OF FLOODING ON SMALL SCALE farmers in ANAMBRA, NIGERIA


1*National Root Crops Research Institute, Umudike.PMB7006 Umudike Abia State, Nigeria
2Department of Agricultural Extension University OF Nigeria, Nsukka
3,4,5 Department of Agricultural Economics and Extension, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus

ABSTRACT: The study examined the impacts of flood on small scale farmers in Anambra state, Nigeria. For the purpose of the objective of the research, 30 farmers were randomly sampled from each communities and this gave a total sample size of 180 farmers. Structured questionnaires were the instrument used for data collection. Data were analyzed through the use of frequency, percentage, mean scores and standard deviation. The result of the study indicated that the mean age was 40 years, 54.4% were male, 55% were married and 50% were illiterate with only 19.40% of the farmers completed primary school. The average farm size was 1.38ha while the mean year of farming experience was 15 years respectively. However, 72.2% of the farmers did not have access to extension services while majority (85.6%) of the farmers practiced subsistent farming. Loss of farms (2.72), hunger and starvation (2.59), displacement from natural domain (2.59), loss of properties (2.55), high incidence of poverty among farmers (2.53), ill health status of the farmers (2.35), loss of family members (2.25) and causing damages on roads (2.13) were perceived by the farmers as a very serious effect on their livelihood.

Keywords: Flooding, impacts, farmers

1. INTRODUCTION

Agricultural production and food security in Africa are tremendously threatened by extreme climate and weather events [1]. Most of the food productions in Nigeria are under small-scale farming; however, it is obvious that climate change will bring about substantial welfare losses especially for smallholders whose main source of livelihood derived from agriculture [2].

The effect of flood on human life should not be overlooked, according to Ajibade, et al. [3], floods contributed one third of all deaths, one third of all injuries, one third of all crop failure and one third of all damages from natural disasters. However, too much weather condition such as thunderstorms, heavy winds and floods damage farm land and can cause crop failure among small-scale farmers [4]. Flood has globally posed a tremendously danger to people’s life and properties. It causes enormous damage all over the world every year. In the last decade of the 20th century, flood killed about 100,000 persons and affected over 1.4 billion people. Consequent upon this, floods may cause economic damage and damage to ecosystems, historical and cultural value [5].

In the past six years (2012 to be specific) there have been incidences of heavy flooding in various parts of Nigeria that held the lives of the rural farmers on ransom and their asset, income, production activities, transport and health were automatically exposed to negative impacts. Consequent upon the damages by flooding incidence, government in conjunction with Non-Governmental Organization (NGOs) came to the rescue of the rural small holder farmers with some felt needs.

According to Ajibade, et al. [3], Nigerian farmers are involved in agriculture on a substance level with majority of them being small scale farmers (holders) and is even more interesting to note that majority of these farmers do not actually take up insurance policies which would have given some sort of safety net in the event of adverse and unforeseen circumstances. This will make them to fall back upon nothing when there are unforeseen circumstances like flood.

Despite the economic damages and other negative effects caused by flood, it has been observed that there is no comprehensive information with regards to the effects of flood on small holder farmers in the study area. This research therefore seeks to assess the impact of flood on small scale farmers in Anambra state, Nigeria.
2. MATERIALS AND METHOD

The study area for this research is Anambra State. The State is located in the South east of Nigeria. It is bounded by Delta State to the West, Imo State to the South, Enugu State to the east and Kogi State to the North. It has estimated population of 4,77,828 million people [6] which stretches over about 60 kilometers between surrounding community. The state lies on the longitude 6° 35'E and 7° E and latitude of 5° 38'N and 6° 47'E (Wikipedia. Org/wiki/anambra State,2010). Anambra State comprises 21 local Governments and is predominantly occupied by Igbo ethnic groups who are farmers by nature.

The target population for this study was all farmers in the state. Multistage sampling techniques were used for this study. Three local governments out of 21 local governments in Anambra State were selected due to their popularity in flood effect. Ayamelum local government, Anambra West local government and Ogbabar local government were selected.

In the second stage, two communities each from a local government were selected. Here Omor and Anaku in Ayamelum Local Government, Nzam and Igedo in Anambra West, Atani and Odekpe in Ogbabar local government were purposely selected. This gave total of six(6) communities. Third stage, 30 farmers were selected from each community using simple random techniques and this gave a total sample size of 180 respondents.

2.1. Measurement of Variables

To determine the effects of flood on farmers, they were asked to indicate the extent of the effects on their livelihood. Their response categories were very serious, serious and not serious.

3. RESULTS AND DISCUSSIONS

Table 1 show that 54% of the farmers were male while 45.61% of them were female. This implies that male dominated farming activities in the study area. Majorities (55%) of the farmers were married while 19.4% of the farmers were single. This implies that the farmers are more likely to have children that might have been affected by climate effect. This result is in consonance with the finding of Ojo and Muhammed [7] which found in their study that more than 96% of their respondents were married. The average mean age was 40 years. The indication is that farmers were predominantly in their active productive age and this could increase their stamina for production. Majority (50%) of the farmers did not have formal education while 19.4% of them completed primary education. High levels of illiteracy among farmers could deprive them chance to adopt the recommended strategies for climate change. The finding is in line with the findings of Ndantsha [8] and Tsoho [9] which reported in their separate studies that rural farmers were characterized with low level of literacy. However, 85.6% of the farmers practiced subsent farming system while 14.41% of others practiced commercial farming. This implies that farmers were still under small scale farming. This finding is in line with the findings of Chinaka and Udemezue [10] which said in their study that farmers in Anambra state were small scale farmers. The mean year of farming experience was 15 years. This implies that the farmers had long period of farming experience and this could enhance their knowledge on farming activities. Majority (72.2%) of the farmers did not have access to extension services while 27.8% had access to extension services. Those of the farmers who did not have access could be as a result of the inability of extension workers to discharge their official duty diligently or it could be due to inadequate extension workers to cover a wide range of farmers within a stipulated time.

<table>
<thead>
<tr>
<th>Variables (n = 180)</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Mean (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>98</td>
<td>54.40</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
<td>45.60</td>
<td></td>
</tr>
<tr>
<td><strong>Age:</strong></td>
<td></td>
<td></td>
<td>40.3</td>
</tr>
<tr>
<td>20-30</td>
<td>19</td>
<td>10.60</td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>60</td>
<td>33.30</td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td>88</td>
<td>48.90</td>
<td></td>
</tr>
<tr>
<td>51-60</td>
<td>6</td>
<td>3.30</td>
<td></td>
</tr>
<tr>
<td>60 and above</td>
<td>7</td>
<td>3.90</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>35</td>
<td>19.40</td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Effect of Flooding on small-scale Farmers in Anambra State.

<table>
<thead>
<tr>
<th>Variables (n = 180)</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of farms</td>
<td>2.72</td>
<td>0.609</td>
</tr>
<tr>
<td>Hunger and starvation</td>
<td>2.59</td>
<td>0.650</td>
</tr>
<tr>
<td>Displacement from natural domain</td>
<td>2.59</td>
<td>2.59</td>
</tr>
<tr>
<td>Loss of properties</td>
<td>2.55</td>
<td>0.663</td>
</tr>
<tr>
<td>High incidence of poverty</td>
<td>2.53</td>
<td>0.612</td>
</tr>
<tr>
<td>Cause malaria</td>
<td>2.35</td>
<td>0.810</td>
</tr>
</tbody>
</table>

Figures in table 2 indicate the various perceived effect of flood by the farmers in the study area. The effects were categorized as very serious = 3, serious = 2 and not serious = 1. The effects were later ranked in the descending order of their sequence. Loss of farm with a weighted mean score 2.72 was ranked first, hunger and starvation with a weighted mean score 2.59, displacement from natural domain with a weighted mean score 2.59, loss of properties (2.55), high incidence of poverty (2.53). Change in weather which brought about malaria disease (2.35), loss of family member (2.25) and causing damages on road with a weighted mean score 2.12 were perceived as serious effect of climate change to farmers in the study area.

These results therefore agreed with Adesiji, et al. [11] who found deviation from normal health status (malaria) as consequence of climate change but at the same time disagreed with the other findings of their studies. However, the finding is also in line with Ajibade, et al. [3] who saw loss of farm land as one of the impact of flooding on small scale rice grower, farmers in Kwara state, Nigeria. More so, the standard deviation values were less than one in all the variables and this implies that the responses of the farmers on these variables did not vary much from the mean, therefore, can be useful in policy formulation.
<table>
<thead>
<tr>
<th>Loss of family member</th>
<th>2.25</th>
<th>0.783</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damages road</td>
<td>2.13</td>
<td>0.762</td>
</tr>
<tr>
<td>Adding nutrients to the soil</td>
<td>1.55</td>
<td>0.758</td>
</tr>
<tr>
<td>Causes environmental pollution</td>
<td>1.45</td>
<td>0.688</td>
</tr>
<tr>
<td>Enriched farmers</td>
<td>1.40</td>
<td>0.657</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2015. Cut off point = 2 and above. SD = Standard deviation

4. CONCLUSION AND RECOMMENDATIONS

The result revealed that 54.4% of the farmers were male while the majorities (55%) of them were married. The means age of the farmers was 40 years while the average farm size was 1.38ha. However, 50% of the farmers were illiterate while 19.4% of them completed primary school. The mean year of farming experience was 15 years. More so, it was observed from this research that loss of farms, hunger and starvation, displacement from natural domain, loss of properties, high incidence of poverty, ill health status of the farmers, loss of family members and causing damages on roads were the major perceived effects of flood on small scale farmers. This research therefore recommends that workshop on climate change should be organized frequently for farmers in the study area as to enable them being acquainted with a proper knowledge on climate change and mitigation. Farmers should be encouraged and educated on issuance policy that would give them some sorts of protection in the case of adverse and unforeseen circumstances. Government on the other way round should compensate and give a source of financial aids to the victims of climate change. Education among the rural farmers should be encouraged and implemented as to enable them have a wider knowledge on weather forecast. Government at all levels should provide basic medical facilities to combat the problems of ill health status of the parents which if adequate care is not taken could lead to untimely death among farmers.

REFERENCES


