COOPERATIVE MEMBERSHIP AND RECOVERY OF FLOOD VICTIMS IN ANAMBRA STATE, NIGERIA.

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ABSTRACT

This study examined the effect of cooperative membership on recovery of flood victims who have had their income, output and productivity levels altered and subsequently reduced. This study was propelled by the inconclusiveness of previous studies on the mechanisms for mitigating the impact of flooding and the need to justify the emphasis of cooperative membership as a better alternative for the recovery of flood victims. The objectives of the study were to analyze the effect of flooding on the economic activities in Anambra State and to determine the contributions of cooperatives to the recovery of flood victims. The area of study was Anambra state. Ogbaru LGA was purposively selected as it was observed to have had repeated event of flooding since 2012. Eight out of sixty five functional cooperatives in the LGA were selected as the sample. Questionnaires were randomly distributed to members of the cooperatives. The study adopted descriptive survey method and analysis was done using simple percentage and frequency distribution model to measure the demographic profile of respondents, specific objectives were analyzed using mean while the research hypothesis were tested using simple regression analysis. The study revealed that flooding has affected the income levels of victims as well as their savings behaviors and consumption pattern. Cooperatives contributed to recovery of flood victims by providing micro-credits, education and extension services, seminars and local level capacity building. This study therefor recommended among others that flood insurance knowledge and forecasting be made available, access to micro-credits by victims, increased capitalization of cooperatives, all necessary assistance to victims should pass through cooperatives, checks and balances and increased awareness of the relevance of cooperative membership to recovery of flood victims.

Keyword: Cooperative Membership. Flood victims, Recovery, Anambra state

INTRODUCTION

The enormity of hydrological challenges facing the world is quite devastating. Flood which can be described as an overflow of water that submerges dry land is one of the recurrent ecological disasters that creates a sudden, calamitous event that disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the communities or society's ability to cope with the use of its available resources (Obaze, 2012). Presently, Nigeria is still battling with flooding and its related challenges. The country has not had it funny since 2012 when she experienced heavy flooding in some states of the federation with Anambra state and other South-east state recorded as the worst state affected by floods (Ituna 2015.) Flood which is one of the most devastating natural and most times man-made disasters have claimed much lives, properties and lands leaving the survivors frustrated and stressed. The river line areas of Anambra state most especially the Ogbaru local government area are not left out

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of this as it appears to be the most affected areas. Many of them are yet to recover from their losses as the flood did not only turn them to dependents, it destroyed their farmlands, reduced their level of productivity and income. Economic trees, properties and houses. The communities were submerged beyond measures by the enormous weight of the flood. It left their once bubbling land desolate and inhabitable.

Agriculture plays a dominant role in the development process of the economy, of which its major occupants are farmers and fishermen who settle in the riverine areas, yet these areas are prone to flooding and their farmlands submerged in the ravaging flood (Efobi and Anierobi, 2013a). Farmers in the affected areas have employed numerous strategies to mitigate the effect of flooding. They sometimes resolve to measures that are established to reduce the effect of flooding when they occur; this is usually termed disaster control measures but these practices failed mostly as a result of poor educational level and background of the inhabitants who are mostly rural farmers, they lacked the sufficient information and knowledge to get insurance and could hardly understand and interpret the flood maps and control measures due to their level of exposure and experience and even when they make any, implementation becomes a problem.

In truism, government, stakeholders and agencies have embarked on collaborative efforts towards preparedness in planning and implementation of appropriate measures to curb the effects of flood, due to the increasing realization that the continued neglect may lead to the postponement of economic recovery. Regrettably, these efforts to tackle the menace are largely deficient due to paucity of funds and related underlying factors as the amount of compensation to the victims is growing higher than they anticipated and relief plan by the government is so slow when compared to the number of affected lives and properties in the state (Arobani, 2013) Warning about expected weather and rainfall patterns as well as imminent risks are poorly utilized and grossly ignored due to poor level of public participation and awareness programs organized by these agencies (Efobi and Anierobi, 2013b). The profundity and complexity of degradation in the state's ecological sphere is also a contributory factor.

In response to these constraints, government have placed a heavy focus on Community based organizations, Non-governmental organizations, agencies and cooperatives as some of the tools that are important in ensuring faster recovery of flood victims since the state government is growing almost helpless in resuscitating the situation. Cooperative since its inception is a major tool for community development channeled towards the achievement of member's economic, social and cultural needs and aspirations. Alabi (2009) opines that it is notable that cooperatives are formidable organizations that have proven more effective in solving the problems of rural dwellers, as it is equally known to reach out mostly to the grass root level which is the foremost for any development program. Therefore, It is believed that cooperative can and has contributed to recovery of flood victims through their number of activities.

In recognition of this research paucity and in a bid to contribute to extant literature, this paper presents research on effect of cooperative membership on recovery of flood victims in Anambra State. Specifically, we also thrive to analyze the effects of flooding on the economic activities of

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the victims; our measure of economic activity uses income as a "proxy' and determine the contributions of cooperatives on the recovery of flood victims. Understanding these holistically would inform policy adjustment and having insights on these contributive measures would trigger consciousness and may prompt the need to replicate these measures in other contexts. The study proposes these hypotheses in the null form;

H_o: flooding does not have significant effect on the income of flood victims.

H_o: duration of cooperative membership does not have significant effect on the recovery of victims

REVIEW OF RELATED LITERATURE

Conceptual Review

Nature of Cooperatives

According to Battista and Baas (2004) Cooperative is a business organization owned and operated by a group of individuals for their mutual benefits. Similarly, all business enterprises that are owned and controlled equally by the people who use its services or who work at them are cooperatives. A cooperative is a group-based and member-owned business that can be formed for economic and social development in any sector (Ohio Cooperative Development Center (OCDC, 2007). The cooperative movement derives its historical and philosophical foundations from the spirit of self-help and mutual cooperation which has been a regular feature of all societies from time immemorial. Mutual self-help and team work among kinsmen, friends and neighbors is certainly one of the oldest and most tested strategies of achieving social, economic and welfare objectives among human beings. Cooperatives Societies in Nigeria like their counterparts all over the world are formed to meet people's mutual needs. Cooperatives are considered useful mechanism to manage risks for members. Through cooperatives, farmers could pool their limited resources together to improve agricultural output and this will enhance socio-economic activities in the rural areas (Ebonyi & Jimoh, 2002). Cooperatives emerged as self-help entities to combat economic and social inadequacies (Baarda, 2006). From the economic stand point, cooperative improve income and bargaining power, while the social purposes of cooperation are more diverse, since they provide a unique opportunity to their members providing them with training, active participation in meetings and leadership positions. As member owned and member governed businesses, they operate for their benefits according to the common agreed principles, members pool their resources to bring about results that are unobtainable by one person alone, farmers who are victims of flood and members of cooperatives societies are able to adopt strategies collectively that can curb the effect of flood on their businesses and as such their livelihood. Cooperative organizations have great potential in agricultural development in particular and rural development in general (Zarafshani, Rostamitobar & Hosseininia, 2010).

Flooding and its causes

An extremely simple definition of flooding is "too much water in a new place" but a more technical description is when water has over flown into an area that is normally dry. The Australian Government (2011) asserts flooding as a general and temporary condition of partial or complete

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inundation of normally dry land areas from overflow of inland or tidal waters from the usual and rapid accumulation or run off of surface waters from any source. Flooding is of various types depending on the causes and period of flooding. The Victoria State Emergency Service (2007) informs that flooding can happen anywhere, at any time and can be caused by more than just rain and the types of flooding that can occur includes: Riverine flooding, flash flooding, dam flooding and storm surge.

Taylor (2012) argued that as water falls to the earth in the form of rain or snow, it steeps to the ground. But if the ground is frozen or the surface impervious (asphalt or concrete are two contenders) or the soil is already saturated and cannot absorb water faster than its channels and streams begins to "pile up" eventually overrunning the sides of those channels and this could give rise to different types of flood which includes; overbank flooding, flash floods, ice jam flooding and coastal flooding. The likelihood of river bursting its banks and flooding is determined by factors in the surrounding landscape, such as steepness of the river valley, the amount of vegetation and the prevailing rock type (Hellevang, 2013).

According to the report of the Australian Government (2011), flooding occurs most commonly from heavy rainfall when natural water bodies do not have the capacity to contain excess water. However, floods are not always caused by heavy rainfall. They can result from other phenomena, particularly in coastal areas where inundation can be caused by a storm surge associated with a tropical cyclone, a tsunami or a high tide conceding with higher than normal river levels. Dam failure, triggered for example by an earthquake, will result in flooding of the downstream area, even in weather condition. Other factors which may contribute to flooding as outlined by the Australian Government include:

- Volume, spatial distribution, intensity and duration of rainfall over a catchment;
- The capacity of the water course or stream network to convey runoff;
- Catchment and weather conditions prior to a rainfall event;
- Ground cover;
- Topography and
- Tidal influences
- Ace Geography (2011) distributed the causes of flood over
- The physical causes which includes:
- Excessive levels of precipitation occurring over a prolonged period of time.
- Intensive precipitation over a short period of time particularly when the ground surface is baked hard after a long period without rainfall.
- The melting of snow particularly when the subsoil is still frozen, so that infiltration capacity is reduced.
- Climatic hazards such as cyclones in Bangladesh, hurricanes in the Gulf of Mexico or deep low-pressure weather systems in mid-latitudes bring abnormally large amounts of precipitation. According to Chanson and Brown (2012), the nature of the drainage basin has an influence on the likelihood of flooding.

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- Impact of human activities which includes urbanization, deforestation, river management and climate change.

Effects of Flood

Scholarly research on issues of flood crisis and its management (Kolawole et al 2011; Onuoha 2015; Aletan & Idowu 2011) have identified three major effects of flood which are categorized as follows;

Environmental effect of flooding: According to the Queensland Government (2011), flood events are natural occurrence that can have significant detrimental impacts that can also provide important environmental benefits. Flood help spread organic material, nutrients and sediments which enrich flood plain soils. Floods disrupt normal drainage systems in cities and officially overwhelm sewer systems. Thus, raw or partially raw sewage spills are common in flood area. However, in a long term, flood events that are part of the natural cycle will ensure the viability of the plants and animals adapted to flood-prone environments and the functioning of those ecosystems. They also replenish ground water, surface water and drinking water supplies.

Socio-Economic effects of flooding: At the event of floods, houses, bridges, roads and automobiles including farm lands are destroyed. It displaces people, leaving them homeless and their major source of income affected. Ajayi (2005) observed that the economic impact of natural disaster shows a marked upward trend over the last several decades. The hazards tend to hit communities in developing countries, increasing their vulnerability and setting back their economic and social growth sometimes by decades.

Health impact of flooding: floods are the most common hazard to cause disasters and have led to extensive morbidity and mortality throughout the world. The WHO Europe (2003) stated that the adverse human-health consequences of flooding are complex, far-reaching and difficult to attribute to the flood event itself. The main health impacts of flood are deaths, injuries and mental health illness during the flood event itself, during the restoration process, or from known effects brought about by damages to major infrastructure including displacement of populations.

Flood Control and Management

The victims of flooding in the riverine areas of Anambra state suffer from some challenges both during and after the flood. The victims in a quest to mitigate this menace and if possible, control it have employed a member of strategies or survival mechanism. In the event of flood, the short-term strategy usually employed by these farmers is support and aid from the government, agencies, philanthropists and individuals. This mechanism over time has not been effective as most times, the farmers get little or no aid from the government and agencies and even when they do, it's always insufficient and incapable of restoring their level of productivity and income (Ujumadu, 2015). The victims have also resorted to constructing retention well and detention basins, drainage systems, planting trees and maintaining greener vegetations and the use of town planning but like every other mechanism; they have failed to achieve the required success. Mc queen (2010) postulated further that time is never on your side when flood hits and whilst sand bags have been the traditional method of flood protection, the required and excessive amount of the time to put up. He further stated that the cost implication of investing in flood defenses is something that mitigates against flood management measures. Unfortunately, many governments do not spend money in maintaining their water ways during 'peace time', meaning they are unable to cope at a time of crisis.

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Cooperative membership and its role in the recovery of flood victims

Battista and Baas (2004) postulated that recurrent natural disasters are better managed at the local level; exceptional/extreme events also required support from the national/local government and international communities. It could be generally inferred that effective flood/disaster control, management and recovery strategies can be achieved through the community-based organizations (CBOs) and local institutions and this is likened to the ability of these organizations and institutions to penetrate individuals and groups at the grass root level, thus for any relief and recovery process to be effective it has to start from the grass root level.

Cooperative extends Education and Extension services to the victims of flood events (who are members of cooperative societies). It was noted that among the various shortfalls of the strategies employed by the farmers, illiteracy, poor educational background, inadequate information and knowledge about flood insurance cover, understanding and interpretation of the flood maps and control measures etc. were a major challenge mitigating the farmer's adoption and implementation of the flood reduction strategy and recovery measures (Ogbeche, 2015).

Through cooperative seminars, workshop, conferences and special trainings on flood insurance, flood control and management strategies, hazard preparedness and post recovery measures, members of cooperatives in the riverine areas would be adequately equipped with the necessary knowledge that would aid their recovery from flood disasters and also flood control and management measures that would reduce the blow and shock from flood disaster. Cooperatives play an undisputable role in fostering access to Agricultural insurance by victims (who are majorly farmers) through the Nigerian Agricultural Insurance Cooperation (NAIC). Flood victims can adequately access micro credit for their post-flood recovery plan through their membership as member user and owner in this cooperative society. Credit schemes are more efficient when administered at community level through cooperatives. However local cooperatives and associations in times of several crises may need back up from national banks to ensure availability of credit. Lack of access to credit is a major issue for the poorest, due to collateral requirements or lack of facilities in remote areas (Battista and Baas, 2004). Cooperative ensures local level capacity building to the victims of flood.

Theoretical Framework

This present study is anchored on theory of reasoned action (TRA) by Martins Fishbein and Icek Ajzen (1967), this theory aims to explain the relationship between attitudes and behaviors within human action. TRA is used to predict how individuals will behave based on their pro-existing attitudes and behavioral intentions. An individual's decision to engage in a particular way is based on the outcomes the individual expects will come as a result of performing the behavior. The implication of this theory aligned with the effects (macro and micro) of cooperative membership on individuals as they engage in carrying out activities that would achieve the predetermined cooperative goals and objective.

TRA serves to understand an individual's voluntary behavior, although it was critiqued as it failed to decipher the importance of group and collective action over individual action, hence the adoption of the collective action theory to aid relevance. The collective action theory by Mancur Olson (1965) argued that the primary function of an organization is the furtherance of common interest of groups of individuals. In the normal case, an organization will go down if it does not foster the common interest of its members. However, each member of the organization has its own individual interest which differs from the interest of other members. These individual goals can also be achievable by the organization. Olson's collective action theory did not only create a

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platform for the primary purpose of cooperative as a group which caters for its members needs but also emphasized on the importance of the member's contribution to the group's objectives and advantages of collective group actions over individual actions. This theory is relevant to this study as it presents information on how farmer, fishermen etc or as the case may can collectively adopt strategies and measures that will help to curb the effect of flooding through their registration of membership in cooperative societies, the knowledge of reasoned action that through their cooperative training and social benefit they can gain access to insurance policies in the event of any risk or loss.

Empirical Literature Review

Kolawole et al (2011) in his study stressed that developing countries are already suffering from the impacts of climate change and are the most vulnerable to further change. Quality assessment of the risk impacts of flood will facilitate countries to plan adaptation measures and adapt effectively. Flooding is common and the most costly natural disaster, through its impacts are also exacerbated by anthropogenic sources.

Onuoha (2015) explained that flood is a manifestation of climate change, reducing green house gas emission is essential to avoiding the worst parts of climate change, because mitigating alone is not enough. It is instructive to note that adaptation planning can limit the damage caused by climate change as well as the long term cost of responding to climate change induced flooding that are expected to increase rapidly in the level in the decades to come. His findings deduced that government agencies in collaboration with non-governmental organizations should educate people both in rural and urban areas about the dangers inherent in blocking water ways, community leaders and association including the media should be involved in the sensitization campaign.

Aletan and Idowu (2011) argued in their study that integrated flood management should encourage the participation of users, planners and policy makers at all levels and should be open, transparent, inclusive and communicative, this requires the decentralization of decision making and includes public cultivation and the involvement of stakeholders in planning and implementation. Their finding shows that it is important to make use of strength of both "bottom up" and "top down" approach in determining proper integrated food management mix that early warning and forecast are key links to the series of steps required to reduce the social and economic impact of all natural hazards including floods.

Battista and Baas (2004) showed that disaster management and response coordination benefit from centralized command during extreme events but most of the disaster risk management related functions require appropriate decentralization of functions, devolution of authority and community participation to complement the centralized system. This is particularly true to regions exposed to recurrent/ chronic events progressively increasing local communities vulnerability. Local level community response is the most important factor enabling people to reduce and cope with risk especially in the most remote areas/ marginalized groups.

Efobi and Anierobi (2013) in their study stressed further that Anambra state and flood management agencies should organize vulnerable people into groups of cooperative societies for mutual support and benefit through capacity building pulling resources together, education and information sharing and effective public participation in self-help programs. This will help enhance proper identification and targeting of vulnerable people so as to better equip, empower and build resiliency into them. Further suggestions and recommendations explains that the state ministry of agriculture through cooperative societies provide quick maturing crop and animal species as well

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finances and other inputs to farmers while providing extension services and quick harvest and storage mechanisms.

METHODOLOGY

This descriptive survey research method was adopted. The area of study is Anambra State. Ogbaru LGA was purposely selected as the sample size; this is justified based on the observation and statistic as one of the major areas affected by repeated event of flooding on the state. Ogbaru LGA is located at the southern part of Anambra state. It is a riverine area with more than 70% of the landmass covered by flood during rainy season. The population of the area according to the 2006 census figure was 223,317 with 51% being female (Nigerian population census 21-03-2006). There are 16 towns in the LGA with the administrative headquarter at Atani. The population of study consists of all registered cooperatives in Ogbaru LGA and there are 65 functional and active cooperatives with membership strength of 1109. The Taro Yamane formula was used to determine a sample size of 294 members.

To select the sample cooperative societies out of the targeted functional cooperative societies in the study area, the multi stage sampling technique involving two stages was used. A judegemental sampling technique was used in the first stage to select right towns that were severally submerged in flood. The second stage involved the use of simple random sampling technique to select 2 cooperative society each from the right towns selected and this made up the sixteen societies from which the sample size of 294 members were drawn. Questionnaire and interview were the instrument for data collection. To ensure the validity of the research instrument, copies of the draft questionnaire were presented to experts in the field of cooperative to read and peruse through and offer useful comments that were vital in designing the final distributed copies of questionnaire. To ensure the reliability of the measuring instrument of the study, a test-retest was conducted.

The data collected from the above sources were analyzed using tables, percentage and mean; some of the responses were critically analyzed and summarized. Simple regression analysis was used to test the research hypothesis to arrive at meaningful findings that aid proper conclusions.

ANALYSIS AND DISCUSSION OF FINDINGS

The interpretation of data was based on the responses collected from the members of the selected cooperatives in Ogbaru LGA of Anambra state. The researcher distributed 294 questionnaires with 240 (81%) copies properly filled and retrieved. The researcher will therefore use the 240 returned questionnaires for the analysis which was limited to the questions contained in the questionnaires.

Table 1: Income and duration of cooperative membership of respondents (n=294)

S/N	VARIABLE	FREQUENCY	PERCENTAGE
1	Annual income (₦)		
	≤ 200,000	10	3.40
	200,001 – 600,000	54	18.37
	600,001 – 1100,000	110	37.41
	1,100,001 and above	120	40.82
2	Duration of cooperative membership		
	None	81	27.55
	< 5 years	65	22.11
	6 – 10	140	47.62
	≥ 10	8	2.72

Source: Field Survey, June, 2021.

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A majority (40.82%) of the respondents had annual income of 1,.000,001 and above, while the remaining had annual income of 600,001 – 1.100,000 (37.41%), 200,001 – 600,000 (18.37%) and ≤ 200,000 (3.40%).

The study also found that a greater proportion (47.62%) of the respondents have belonged to a cooperative for 6 – 10 years, while 2.72% have been members for over 10 years and 22.11% has been members of a cooperative society for less than 5 years.

Table 2: Distribution According to the Impact of Flooding on the Economic Activities of Respondents.

S/N	ITEMS	SA	A	N	D	SD	TOTAL	MEAN	REMARK
1	Flooding has reduced my level of income	140	80	15	5	-	240	4.37	Accepted
2	My output has been reduced due to flooding	150	75	5	5	5	240	4.48	Accepted
3	My productivity has drastically reduced due to flooding	110	75	15	30	10	240	4.06	Accepted
4	I have lost my home, farm lands, properties and assets to flooding	155	80	5	-	-	240	4.58	Accepted
5	Flooding has disrupted the community's cultural and political system and functioning	45	105	15	50	25	240	3.56	Accepted
6	Flooding has reduced my investment potentials and opportunities	120	65	30	20	5	240	3.97	Accepted
7	Flooding has destroyed many social and economic infrastructure making life more difficult for victims	135	82	20	5	-	240	4.29	Accepted
8	Transportation and communication infrastructure have been destroyed by flooding	145	60	10	15	10	240	4.34	Accepted
9	The commercial activities of the area have been seriously disrupted by flooding	137	75	6	13	9	240	4.37	Accepted
10	My standard of living and that of family has been affected by flooding	125	95	4	5	11	240	4.38	Accepted

Source: Field Survey, June, 2021.

On determining the effects of impact of flooding on the economic activities of respondents, table 2 revealed that there are adverse effects of flooding on respondents' income, output and productivity levels, savings behavior, consumption and investment patterns and potentials,

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standard of living as well as destruction of important social, economic, transportation and communication infrastructures, homes, farmlands, properties, and disruption of commercial activities

Table 3: Distribution According to the Contributions of Cooperative on the Recovery of Flood Victims (Respondents)

S/N	ITEMS	SA	A	N	D	SD	TOTAL	MEAN	REMARK
1	Education and extension to flood victims	70	105	10	15	40	240	3.77	Accepted
2	Easy access to flood insurance through Agricultural insurance (NAIC)	50	90	25	55	20	240	3.48	Accepted
3	Access to micro credit and loans by victims through Agricultural banks and cooperative banks and thrift societies	125	75	5	20	15	240	4.22	Accepted
4	Local level capacity building	58	65	3	10	17	240	4.34	Accepted
5	Relief and rehabilitation plans for victims	70	82	10	45	33	240	3.69	Accepted
6	Early warning information in local languages	99	90	19	21	11	240	4.02	Accepted
7	Organizing seminars, conferences and trainings	50	45	60	50	35	240	2.97	Rejected
8	Encouraging proper town planning	115	80	-	40	5	240	4.25	Accepted
9	Creating awareness on the relevance of adequate drainage system and proper waste disposal	120	75	15	20	10	240	4.15	Accepted

Source: Field Survey, June, 2021.

Table 3 indicates that the contributions of cooperative on the recovery of flood victims includes education and extension to flood victims, easy access to flood insurances through NAIC, access to micro credit and loans through Agricultural and Cooperative banks, local level capacity building, relief and rehabilitation plan for victims, early warning information, encouraging proper town planning and creating awareness on the importance of adequate drainage system and proper waste disposal.

Test of Hypothesis One

Ho: Flooding impact does not have significant effect on the income of flood victims.

Hi: Flooding impact has significant effect on the income of flood victims.

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Table 4: Regression Estimate Showing the Effect of Flooding on the Income of Victims

Model	Coefficient	t-value	Significance
Constant	0.056	0.323	0.748
Flooding	-0.892	-19.131	0.000
R^2	0.796		
Adjusted R^2	0.793		
F	365.981		

Dependent variable: Income

Decision

The R^2 of 0.793 shows that 79.3% of variations in income is caused by of flooding. The F-value of 365.981 is significant showing the strength of the model. Flooding has coefficient of -0.892 and it was very significant at 5% level. It shows that when flooding increase by one unit, income will fall by 0.892. Since t-statistics is significant at 0.05 level, the null hypothesis is rejected. Therefore, we conclude that flooding has significant effect on the income of flood victims.

Test of Hypothesis Two

Ho: Duration of cooperative membership does not have significant effect on the recovery of victims

Hi: Duration of cooperative membership has a significant effect on the recovery of victims.

Table 5: Regression Estimate Showing the Effect of Duration of Cooperative Membership on the Extent of Recovery of Flood Victims

Model	Coefficient	t-value	Significance
Constant	0.341	3.322	0.001
Duration of membership	0.959	33.018	0.000
R^2	0.921		
Adjusted R^2	0.920		
F	1.090		

Dependent variable: Extent of recovery

Decision

The R^2 of 0.92 revealed that 92% of changes in the extent of recovery were caused by duration of membership. The F-value of 1.090 was also significant signaling the strength of the model. With coefficient of 0.959, extent of recovery will increase by 0.959 when duration of cooperative membership increases by one unit. Thus suggesting that the longer one stays as a cooperative member, the more the extent of his recovery in the event of flooding.

Since t-statistics is significant at 0.05, the null hypothesis is rejected. Therefore, we conclude that duration of cooperative membership has significant effect on the extent of recovery of victims.

In summary, flooding has affected the income of victims resulting to the loss of farmlands, homes, properties, and assets. Destroyed social and economic infrastructure, communication, transportation and commercial networks and a reduction in their standard of living. Cooperatives have contributed to the recovery of flood victims with the duration of membership being an important factor or determinant of the extent of recovery.

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CONCLUSION &RECOMMENDATIONS

When flood waters recede, the damage left behind can be devastating and present many dangers. Images of flood destruction depict destroyed homes and buildings, damaged possessions, and decimated roadways. Flood victims in Ogbaru LGA, in order to mitigate the effects of flooding employed numerous mechanisms, most of which was a complete failure. Cooperatives, as this study has shown, appeared to be a better alternative. Cooperatives though faced with many challenges made a lot of difference in the recovery efforts of flood victims in Anambra State.

Based on the findings of this research, the following recommendations are made thus;

Micro credits from agriculture/cooperative banks should be made available to cooperative members affected by flooding. This would be of great benefits to the victims since the compensation from the government cannot be guaranteed and accessing loan from conventional commercial banks by victims is always fraught with serious challenges.

Increased capitalization of cooperatives and raising of awareness on the relevance of cooperatives membership for recovery of flood victims. This is necessary to boost the capital base of the societies with particular reference to the ones in the riverine areas to be able to beat the problems of poor financing and capitalization, fund accumulation is the best option and this will enable the societies to depend more on internal sources of finance.

By and large government efforts at offering rehabilitation and relief facilities to victims by the government are better distributed through the cooperative societies since there are ample evidence in other climes that suggests the primacy of cooperative in this regard. Through massive cooperative campaigns, conferences and workshops targeted especially to the rural communities, greater awareness of the potentials of Cooperative societies to recovery of flood victims can be created.

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