

## ANALYSIS OF LIVELIHOOD STRATEGIES OF HOUSEHOLD'S HEADS IN ODE-OMI KINGDOM, OGUN-WATER SIDE LOCAL GOVERNMENT AREA, OGUN STATE, NIGERIA

**Olawuyi S.O. <sup>\*1</sup> & Rahji M.A.Y. <sup>2</sup>**

<sup>\*1</sup> Department of Agricultural Economics,

Ladoke Akintola University of Technology, P.M.B 4000, Ogbomoso, Oyo State, Nigeria

<sup>2</sup> Department of Agricultural Economics, University of Ibadan, Nigeria

<sup>\*1</sup> Correspondent Author, Phone no: +2348033548970, e-mail: [seyidolapo@yahoo.co.uk](mailto:seyidolapo@yahoo.co.uk)

### ABSTRACT

This study examined the livelihood strategies of households' heads in Ode omi kingdom of Ogun- water side Local Government Area of Ogun State, Nigeria. Structured questionnaire was administered to selected households' heads through In-depth Interview, Focus Group Discussions and Participatory Rural Appraisal. A multistage sampling technique was used to select a total of 100 households' heads that were used for this study. The study area is faced with a lot of problems, having direct effect on the residents' livelihood activities and income; these problems range from lack of infrastructural facilities and loss of land and landed properties to mention a few as a result of expropriation. And, they have been living with these for years, thereby limiting the growth and development of the area and people within. The result revealed that majority of the respondents (71%) engage in fishing and fishing related activities as their main occupation. A regression analysis carried out shows that, 61.9% level of variation in the Income of households' heads is due to the changes in the specified explanatory variables, as given by the coefficient of multiple determinations ( $R^2$ ); hence, these variables form the prominent factors observed to have caused and affected the Income. Age, household size and expenditure are found to be positively significant on Income but that of expenditure on the contrary negates the a-priori expectation. This study thus concludes that the role of assets such as social capital, land, property, cash, savings and labour is central in determining the outcomes of livelihood activities as measured by income and well-being. Therefore, adequate compensation, livelihood restoration and replacement are vital in a case of expropriation by government so that the affected households will not be subjected to psychological and emotional trauma.

**Keywords:** *Livelihood strategies, Households' heads, Ogun state, Ranking tables, Ordinary Least Square (OLS), Nigeria.*

### 1. INTRODUCTION

The status of many coastal communities in the developing world can at best be described as fragile. With a high dependency on a severely depleted and overexploited natural resource base and on badly degraded coastal ecosystems, few coastal communities in the developing world have found sustainable routes out of poverty. For such communities, the added onslaught that is brought by natural disaster can prove to be an almost intolerable burden that extinguishes existing livelihood options, inadequate as they may be. Department for International Development (DFID) (2002) stressed that two thirds of Nigeria people are poor: over half the poor and 85 per cent of the extreme poor live in rural areas. Nigeria has the third highest number of poor people in the world. Indications suggest that poverty in many rural areas of Nigeria is worsening with existing livelihood strategies becoming increasingly unsustainable. Reversing this trend and making substantive progress towards achieving the Millennium Development Goals (MDGs) in Nigeria therefore requires a reduction in rural poverty. Rural poverty is associated with dependence on subsistence farming; large household size; age and educational status of household heads; vulnerability to environmental, political and economic shocks. The British Department for International Development, DFID's aim is the elimination of poverty in developing countries with the adoption of the livelihoods approach as expected to contribute to this aim in providing structure for discourse and research. In this way, the approach has to be understood basically as a tool, or checklist, to analyse the strategies employed by households in the attainment of livelihood outcomes (income, sustainable resource use, well-being e.t.c) (Kollmair and Juli, 2002); hence, the concept of a livelihood strategy has become central to development practice in recent years. Ellis (1998) said that the chosen combination of assets and activities is often referred to as the households' livelihood strategy. A livelihood strategy encompasses not only activities that generate income but many other kinds of choices, including cultural and social choices, that come together to make up the primary occupation of a household. Robert and Robert (2004) quoting from (Ellis, 1999) stated that, the rural economy is not based solely on agriculture but rather on a diverse array of activities and enterprises. They further stated that, much recent thinking on this

subject is based on the concept of 'livelihood diversification as a survival strategy of rural households in developing countries'. Farming remains important but rural people are looking for diverse opportunities to increase and stabilize their incomes. The notion of livelihood diversity is based on a framework that considers the activities of the rural poor as being determined by their portfolio of assets, including social, human, financial, natural and physical capital. They further stated that, farmers are renowned for adopting risk-averse strategies, such as planting a mixture of crops to cater for a range of conditions. Households can also be seen to pursue non-farm income as a way of avoiding risks from agriculture. It is important for agricultural research, extension and development to recognize the changing dynamic of livelihood strategies and to tailor their strategies accordingly. The impact of diversification on agriculture varies from negative effects, such as the 'withdrawal of critical labour from the family farm' to positive ones including the 'alleviation of credit constraints and a reduction in the risk of innovation' (Robert and Robert, 2004). Activities and livelihood strategies therefore reflect farmers' assets and are further influenced by the institutions that they interact with and broader economic trends such as market prices and shocks such as drought occasioned by unsuitable climatic conditions.

According to Chambers and Conway (1992), "a livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks; and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base; natural resource base sustainability in this context refers to the ability of a system to maintain productivity when subject to disturbing forces, whether a 'stress' (a small, regular, predictable disturbance with a cumulative effect) or a 'shock' (a large infrequent, unpredictable disturbance with immediate impact). This implies avoiding depleting stocks of natural resources to a level which results in an effectively permanent decline in the rate at which the natural resource base yields useful products or services for livelihoods.

The main objective of this research is to analyse the Livelihood Strategies of Households' Heads in Ode-omi kingdom of Ogun-water side Local Government Area of Ogun State, Nigeria.

And, the specific objectives are to:

- identify the socio-economic characteristics of the households' heads in Ode-omi kingdom of Ogun-water side L.G.A of Ogun State,
- determine the livelihood strategies of households' heads,
- examine the relationship between selected socio-economic and demographic characteristics and the livelihood outcome of households' heads as expressed by the income generated,
- examine how livelihood assets and resources are used in the study area,
- examine the effects of institutional policies on livelihood assets and resources use, and
- identify the constraints affecting livelihood outcome of households' heads as expressed by the income generated.

Several forces influence the households' decision to participate in different livelihood activities. Evidence from previous researches suggest that the decision to participate in a certain livelihood activity is triggered by the rewards offered, risks associated with it and households' capacity, which is determined by the assets endowment and this explains why not all households have the same opportunities to participate in different activities. The conceptual framework for this study is built from the work of Sesabo and Tol (2005). Drawn from the framework are the indicators of households' endowments that determine the behaviour of these households regarding the livelihood activities they engage in; it is evident that rural household livelihood activity is strongly influenced by assets endowments. Sesabo and Tol (2005) defined asset as stocks that produce cash or in-kind returns. These assets are the basis for household ability to engage in livelihood activities to generate income (such assets include canoes and fishing gears for fishing and fishing related activities or land for farming, e.t.c). Some of the livelihood literatures from (Ellis, 1998; Carney, 1999 and Valdivia and Quiroz, 2001) proposed five-ways of classifying assets: physical capital (land, and productive tools), human capital (educational status, skills and experience), social capital (networks and organizations), natural capital (common properties, natural resources) and financial capital (sources of income, availability of cash, savings, credit, remittances, e.t.c). The access to different types of assets is affected by Household structure comprising age of household members, size and the composition within the household. The influence of households' structure is in the form of determination of work force available, absence or presence of a male head, consumption demand and preferences on investment patterns. The household members' contribution to the household total income differs according to their age. Thus, different households might have different consumption and labour units. Furthermore, facilitating factors, which include factors such as market institutions, service provisions and political environment, also influence households' access to assets. In a study conducted by Valdivia and Quiroz (2001) on Rural Livelihood Strategies, Assets, and Economic Portfolios in coping with climatic perturbation; it was emphasized that, Livelihood strategies pursued by households and individuals in a rural community are shaped by access to resources, social networks, non market institutions, monetary resources, and the ability to develop non farm/rural-urban linkages. Explaining further, they said that, the purpose of understanding

livelihood strategies is to shed light on how and when individuals, households, and groups negotiate among themselves, with their communities, markets and society to improve their well being or reduce food insecurity by appropriating the benefits from their assets, activities, and investments. Household livelihood strategies change through time due to many factors such as markets, new technologies, and climate perturbations being major ones. Natural hazards, market uncertainties, political unrest, and government policies are among the many forces that individuals, households, and communities have to negotiate to reduce their vulnerability and improve their welfare. Valdivia and Quiroz (2001) also stressed that, the ability to negotiate with others and with markets, in order to capture the stream of benefits generated through the use of capitals/assets accessed and the labor invested through the life cycle, are shaped or mediated by culture, society, policies, environment, and global markets. Water, land, livestock, crops and knowledge are essential resources/assets in generating the livelihoods of families in rural areas of the world. Valdivia and Quiroz (2001) citing (Valdivia et al., 1996) explained that, wage is a source of off-farm income, and this variable captures non-agricultural activity to diversify income sources. Remittances, as an indicator of networks outside the community are also a rural-urban linkage indicator. Now, on the current direction of study and investigation, it is important to gauge the livelihood strategies employed by households' heads and how the livelihood resources and assets are used. Another useful aspect of this study is that it allows identifying the networks within which households in a community operate and how it may relate to achieving a better livelihood outcome, most especially income; given the available resources. This is important as it helps to measure and determine the impact of economic shocks, stress as well as perturbation being experienced in the course of pursuing various livelihood activities. Thus, the present study is built from the conceptual and theoretical framework which helped in identifying specific variables, in relation to the assets endowments, the presence of relevant institutions and the key livelihood activities and strategies used by the studied households' heads.

## 2. MATERIALS AND METHODS

The study was carried out in Ode-omi Kingdom in Ogun Water side Local Government Area of Ogun State, Nigeria. It is located in the western part of the newly established Olokola Free Trade Zone (FTZ). It shares boundaries with Ibeju-Lekki local government area of Lagos State in the West and Ese-Odo Ilaje local government area of Ondo State in East. In general, this area covers the coastal portion of Ogun State between Omu Creek to the North and the Atlantic Ocean/Coast to the South. Its western boundary extends approximately 3km into Lagos State and the eastern boundary also extends about 3km into Ondo State. The Kingdom is divided into two major parts: Coastal region and Creek region. The settlements in these regions are inhabited by indigenous people and few minority groups such as Ilaje, Ikale, Urhobo, Ghanaians e.t.c whose livelihood depends primarily on fishing and fisheries related activities as well as subsistence agricultural production (farming and farming related activities). The dominant ethnic group in this area is Yoruba and Ijebu is the common spoken dialect. Ode-omi kingdom has both the coastal and the creek regions. The Coastal region has 10 communities while the Creek region of the kingdom comprises of 9 communities (Ogun Water-side Local Government Area gazette, 2008). However, 6 and 4 communities (totalling 10 communities) were selected from the coastal and creek regions respectively through proportionate to size sampling technique because of the variation that exists in their respective population. And, systematic sampling technique was used to select 10 households' heads from each of the chosen communities. Thus, a total of 100 households' heads form the sample size that were used for the study. The Instrument used for data collection is structured questionnaire; this was administered to the selected households' heads through In-depth Interview, Focus Group Discussion (F.G.D) and Participatory Rural Appraisal (P.R.A) for the ranking exercise. The data collected from the field were subjected to analysis using both descriptive and inferential statistics. Also, ranking tables were used to analyse the Households heads' livelihood activities, wealth status and problems being encountered by the respondents during the course of their livelihood pursuit; this is in line with Song *et al.*, (2006) who gave an insight to processes and ways by which livelihood, problem and wealth ranking tables can be constructed using different indices and indicators in a study conducted in Vietnam on capacity building on sustainable livelihood analysis and participatory rural appraisal. According to Song *et al.*, (2006), livelihood ranking is defined as a tabular tool of ordinal ranking of livelihoods or livelihood options based on pair-wise comparisons with reasons stated for choices made. It thus helps to identify the importance of livelihood options by using different indicators; this in-turn can assist the households and community at large in deciding how to mobilize necessary resources in appropriate ways. Also, wealth ranking is defined as a tool used to identify groups with different socio-economic status, not only on the basis of scientific or government criteria but on the basis of locally (community) developed criteria or on local definitions of wealth and the quantification of assets. It also helps to determine the level of socio-economic homogeneity and/or heterogeneity among households in the community. This tries to investigate further, the relationships between socio-economic status and variables such as occupation, level of education, family size e.t.c. And, problem ranking is defined as a tool used to support people, identify and prioritize problems by assessing their relative importance using a set of criteria. Then, Ordinary Least Square (OLS) technique

was used to examine the relationship between selected socio-economic characteristics of households' heads and the total income (as a measure of livelihood outcome) generated from their livelihood activities.

### 2.1. Model specification

The model is expressed as:  $Y = f(X_1, X_2, \dots, X_n + e_i)$  or  $Y = B_0 + B_i X_i + e_i$  where:

Y = Dependent variable (Income (farm and off-farm) in Naira)

$B_0$  = is the intercept (parameter),  $B_i$  = regression coefficients (parameters) that explain the relationship of selected socio-economic and demographic characteristics and Income of households' heads.

And, given livelihood as an occupational technology, the socio-economic and demographic characteristics of the households' heads to a large extent may influence the income realized.

$X_i$  = Vectors of parameters to be estimated, i.e. explanatory variables ( $i=1, 2, 3, \dots, 12$ ) as defined below:

$X_1$ = Age (years),  $X_2$ = Gender,  $X_3$ = Marital Status,  $X_4$ = Household Size,  $X_5$ = Education,  $X_6$ = Main Occupation

$X_7$ = Alternative Livelihood,  $X_8$ = Labour payment,  $X_9$ = Stress and Shocks,  $X_{10}$ = Coping Strategies,  $X_{11}$ = Expenditure

$X_{12}$  = Household Savings.

$e_i$  is an error term or random error included to account for vectors of variables which are not taken into account.

The selection of these variables was based on economic theory and as suggested by previous similar study in the literature, for instance (Sesabo and Tol, 2005).

### 3. RESULTS AND DISCUSSION

Table 1: Socio-economic characteristics of the respondents

Socio-economic characteristics	Frequency
<b>Age</b>	
21-30	12 (12.0)
31-40	28 (28.0)
41-50	34 (34.0)
51-60	15 (15.0)
Above 60	11 (11.0)
<b>Gender</b>	
Male	83 (83.0)
Female	17 (17.0)
<b>Household size</b>	
≤ 5	37 (37.0)
6-10	51 (51.0)
> 10	12 (12.0)
<b>Educational attainment</b>	
Non-formal	55 (55.0)
Primary	27 (27.0)
Secondary	16 (16.0)
Tertiary	2 (2.0)
<b>Main occupation</b>	
Farming	25 (25.0)
Fishing	71 (71.0)
Trading	1 (1.0)
Others	3 (3.0)
<b>Social organization membership</b>	
Yes	88 (88.0)
No	12 (12.0)
<b>Access to Infrastructure</b>	
No	100 (100.0)
<b>Stress and Shocks experienced*</b>	
Finance	67 (67.0)
Health crisis	6 (6.0)
Crops and animal failure	29 (29.0)
Indebtness	48 (48.0)
<b>Coping strategies*</b>	
Lending money from Thrift and Credit societies	88 (88.0)
Obtaining goods on credit	52 (52.0)
<b>Taboo</b>	
Yes	100 (100.0)
<b>Total</b>	<b>100 (100.0)</b>

Source: Field survey, 2009, Figures in parenthesis are percentage values, \* - Multiple response

Table 2: Main Livelihood Ranking of Households' Heads

Activity	Household number	Intensity (1-5)	Return (1-5)	Cost (1-5)	Time (1-5)	Risk (1-5)	Total score	Rank
Fishing and fishing related activities	71	4	4	3	4	3	18	3
Farming (Crop production & Animal Husbandry)	25	3	3	2	3	2	13	2
Non-farm activities and Other Services	4	1	2	1	3	1	8	1

Source: Field Survey, 2009

Table 3: Wealth Ranking among Households' Heads

Indicator	Observation	Comment
Man-power (Labour)	Family labour are commonly used, few use hired labour while some use both hired and family labour. The family and hired labour are paid in kind; except on few occasions involving farming activities that hired labour are paid in cash; the labour lack technical know-how and have low level of human capital development.	Poor Households
Assets		
- House Ownership	Everybody owns house except the migrant fishermen who are Ghanaian; these fishermen live in rented houses.	Better-off Households
- House Type	All houses are made with palm tree and bamboo products.	Poor Households
- Furniture and Beddings	These are made of forest resources – mats and weaved wooden materials from bamboo, none of the household uses upholstery.	Poor Households
- Household items	Household items are: video player, T.V set, radio player, generators; few households have motor-bike for intra & inter community movement.	Better-off Households
- Toilet Type	Is of Open system. Households' members defecate in the bush and near the sea side.	Poor Households
- Roof and Wall Type	The roof and wall are made from thatched leaves (palm-front), and bamboo products.	Poor Households
- Land Ownership	Every household have access to land and landed properties which are inherited from their fore-fathers; these lands are used for agricultural purposes. Though, government is taking the land through expropriation.	Better-off Households
Loans	Those who engage in social organization activities have access to revolving loans.	Better-off Households
External Influence	As gathered and observed, common among external influence on access to assets and resources being experienced by respondents are: expropriation, dredging and trawler movement which affect the availability of fish stocks in the creek and sea. Also, seasons dictates what quantity of fish stock is available to sell because there are off and peak periods. Despite all of these, little profit is earned.	Better-off Households

Source: Field Survey, 2009

Table 4: Problem Ranking among Households' Heads

Problem	Number of affected household head	Severity of impact (1-10)	Frequency of impact (1-10)	Total score	Rank
Health Problem	4	1	1	2	1
Climatic perturbation	34	6	6	12	6
Lack of adequate capital	41	7	8	15	7
Poor equipments/fishing gears	2	5	3	8	5
Trawler menace	5	3	2	5	4
Crop and animal failure	11	2	2	4	3
Civil unrest	3	1	1	2	1

Source: Field Survey, 2009

Table 5: The Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.787 <sup>a</sup>	0.619	0.566	0.491

Table 5.1: Regression Analysis Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.120	0.480		-0.250	0.804
Age	0.093	0.055	0.144	1.686*	0.095
Gender	-0.141	0.211	-0.071	-0.669	0.505
Marital Status	-0.193	0.093	-0.200	-2.076**	0.041
Household Size	0.270	0.097	0.238	2.774***	0.007
Education	0.062	0.067	0.069	0.935	0.352
Main Occupation	-0.003	0.004	0.076	-0.905	0.368
Alternative Livelihood	0.002	0.002	0.082	1.096	0.276
Labour Payment	0.116	0.093	0.116	1.247	0.216
Stress and Shocks	-0.002	0.008	0.030	-0.320	0.750
Coping Strategies	-0.038	0.208	-0.17	-0.184	0.854
Expenditure	0.558	0.096	0.543	5.824***	0.000
Household Savings	0.338	0.331	0.099	1.020	0.311

a. Dependent Variable: TOTAL INCOME

Source: Computer print-out, 2009

### 3.1 Ranking Tables

Table 2 revealed the ordinal ranking of livelihood and livelihood options of the respondents. It further shows that fishing and fishing related activities (fish-smoking and fish trading) are ranked high among other activities based on the total scores accrued to it by the respondents; this is followed by farming activities (crop production and animal husbandry) which was ranked second. Meanwhile, other services such as trading, operator, mechanic, traditional healing, civil service, lumbering, local gin distillery, driving, clerical services, tailoring e.t.c are ranked third.

Also, wealth ranking exercise was carried out to identify local criteria used to differentiate households on the basis of wealth and well-being. To achieve this, group interview was carried out with local key informants who were asked to identify what and what qualify a group of households to be 'poor' in their settlement. After this, the key informants were asked to identify the next group of 'better off' households and to identify the characteristics of this group and so on. Information collected about the types of housing conditions (e.g. type of roof and walls) and household assets (e.g. furniture and bedding) that key informants used as proxy indicators for wealth during the group interviews on the wealth ranking exercise were then used to draw up specific questions on housing conditions and household assets, e.t.c which was used during the one on one interview exercise with the households' heads. The information collected was then used to differentiate households' heads by economic status and well being as shown in Table 3. The ranking makes use of several indicators such as man power (human capital development),

assets (household items inclusive), access to loan, and external influence. From the table, the respondents are classified as being poor based on the available man power; this is because the labour lack technical know-how and have little or no human capital development. Also, based on the assets acquisition, respondents are classified as being poor and better-off households, according to the items which fall under the assets as indicators of wealth. More so, respondent are classified as better-off based on access to loans because no matter how little, some of them have access and obtain credit facilities from the social organizations which are run in form of thrift and credit societies. Then, the respondents are classified as better-off in the area of external influence because little or small profit is earned despite external influence effects. Then, Table 4 revealed the problem ranking among households' heads. As pointed out in the table, the prevailing problems common to majority of the respondents are Lack of capital and Climatic disturbance (perturbation) respectively as they are ranked high among other stated problems. Then, the respondents pointed to the obsolete equipment and gears they use as one of the problems facing them towards achieving a better income. Also they believe that, trawlers movement on the sea affect the availability of fish stocks because the fish tends to move far away from the normal fathoms where fish can be caught; this reduces the level of fish-catch and income generated.

### 3.2 Regression Analysis Result (Ordinary Least Square Technique)

From the regression analysis result presented in Table 5, the estimated equation is:

$$Y = -0.120 + 0.093X_1 - 0.141X_2 - 0.193X_3 + 0.270X_4 + 0.062X_5 - 0.003X_6 + 0.002X_7 + 0.116X_8 \\ (1.686)^* \quad (-0.669) \quad (-2.076)^{**} \quad (2.774)^{***} \quad (0.935) \quad (-0.905) \quad (1.096) \quad (1.247) \\ - 0.002X_9 - 0.038X_{10} + 0.558X_{11} + 0.338X_{12} \\ (-0.320) \quad (-0.184) \quad (5.824)^{***} \quad (1.020)$$

$$n = 100, R^2 = 0.619 = 61.9\%, \text{ Adjusted } R^2 = 0.566 = 56.6\%$$

\* - Statistically significant at 10% probability level, \*\* - Statistically significant at 5% probability level

\*\*\* - Statistically significant at 1 % probability level

The above estimated equation has  $X_1$ ,  $X_4$ ,  $X_5$ ,  $X_7$ ,  $X_8$ ,  $X_{11}$  and  $X_{12}$  with positive co-efficients value whereas its  $X_2$ ,  $X_3$ ,  $X_6$ ,  $X_9$ , and  $X_{10}$  have negative co-efficients value. However,  $X_1$ ,  $X_3$ ,  $X_4$ , and  $X_{11}$  are significant at 10, 5, 1 and 1 percent alpha-level respectively as shown in Table 5.

The implication of all these from the finding, is that increase in the level of any of the explanatory variables with positive sign will have a positive effect on the income as a measure of livelihood outcome, whereas those explanatory variables with negative sign will exert a negative relationship on the income as a measure of livelihood outcome. However, age ( $X_1$ ) being positive and significant at 10 percent indicates that, it is a strong factor considered for having a better income and as such, the higher the age, the better the income realised because aged ones have tendency to obtain a better livelihood outcome considering the years of experience involved in their various livelihood activities. Then, household size ( $X_4$ ) being positively significant at 1 percent implies that, the larger the household size is, the better the chances of having access to family labour to use for their respective livelihood activities which invariably betters the income as a measure of livelihood outcome and it is also a strong factor to consider. More so, expenditure ( $X_{11}$ ) is positively significant at 1 percent; this indicates that, for every increase in the expenditure, more income is realised; this is in contrast with the a-priori expectation and may be attributed to poor record keeping of income and expenditure stream and the use of memory estimate for the figures they laid claim to. On the other hand, marital status ( $X_3$ ) is negatively significant at 5 percent; this implies that, there is inverse relationship between income as a measure of livelihood outcome and marital status; meaning that increased marital status contributes negatively to the income; yet it is an important factor to consider. In addition, gender ( $X_2$ ), occupation ( $X_6$ ), stress and shocks ( $X_9$ ) and coping strategies ( $X_{10}$ ) have negative coefficients and not statistically significant; the implication of this is that, the gender in question, particularly male gender tends to have a better livelihood outcome over the female counterpart considering the taboo or restriction placed on women from going to the sea for fishing; hence, it has an inverse relationship with income. Also, there exists an inverse relationship between main occupation of the households' heads and income; this is at variance with a-priori expectation because occupation is expected to contribute positively to income; all things being equal. In addition, stress and shocks being faced by households' heads have an inverse relationship with income as expected because these shocks and stress, especially lack of basic and infrastructural facilities, coupled with perturbation in the study area are expected to have a negative effect on the income generated; this thus implies that, the more the continuing presence of these stress and shocks, the more the respondents are affected economically. Then, coping strategies have negative coefficient; this connotes that, the coping strategies (obtaining loans from thrift and credit societies) employed is having an inverse relationship with the income; this is not expected to be so because involvement of the households' heads in social organization will make them have access to credit facilities and in turn should better the income but the variance with a-priori expectation experienced could be resulted from wrong channelling of the capital obtained from this source. However, education ( $X_5$ ), alternative livelihood ( $X_7$ ), labour payment ( $X_8$ ),

savings ( $X_{12}$ ) are not statistically significant, but have positive co-efficients values for livelihood outcome (Income); this indicates that, livelihood outcome increases with level of education, alternative livelihood options available, labour payment (mostly paid in kind) and savings. It can be inferred that, the level of education is equally important especially those with an average educational status have tendency to obtain better livelihood outcome compared to those with non-formal educational background. In addition, households with alternative livelihood option(s) will have better livelihood outcome compared with those who have none; this is as a result of additional income which will be generated apart from the one obtained from the main occupation. Then, labour payment is equally positive and this means that, mode of payment to labour adopted by the respondents contributes meaningfully to income because the labour are mostly paid in kind and not in cash; thus this unused cash is expected to be used for another important purpose meant to contribute positively to the total income. And, savings as expected is positive; meaning that, every increase in savings brings about an increase in the level of income realised; this might be as a result of the profit made being ploughed back into their respective business operations. Furthermore, the estimated equation shows that, 61.9% level of variation in the Income of households' heads is due to the changes in the specified explanatory variables, as given by the co-efficient of multiple determinations ( $R^2$ ).

#### 4. CONCLUSION

This study shows how the residents of Ode-omi kingdom obtain their livelihood from various livelihood activities; an increasing livelihood diversification among the residents was observed in this study area and how these relate to assets, and access within the livelihood framework. The implications for policy reform are numerous and need attention from both state and global institutions. Among the respondents, activities being engaged in are categorized into farm and off-farm activities. Farm activities are basically Farming and Fishing while off-farm activities are Trading, Operator, Mechanic, and Other activities that generate income or support for households. Internal household dynamics based on age and household size is shown to affect positively the livelihood outcomes (income and well-being). Then, the study indicates that the role of assets such as social capital, land, property, cash, savings and labour is central in determining the outcomes of livelihood activities as measured by income and well-being. Cultural taboos deeply affect choice of livelihood options in the study area; women are prevented by cultural taboo from fishing on the high sea. More so, not all households' heads are equally capable of exploiting the water resources in the area to its fullest being a coastal side because of the capital involvement in procuring the needed implements and gears. Hence, it is important not to idealize rural livelihoods, the livelihoods perspective warns us away from this. Rural life is hard in Nigeria and Africa as an entity; given the trends in health, mortality, income levels and other hardships, Livelihood strategies and diversity have only developed in this way in Nigeria because of the risks and uncertainty that characterize rural life. It is in part, a function of the study area diverse and unpredictable ecology, that make the people's livelihood means and strategies dwindling, as well as the modern-day uncertainties that surround land access (especially expropriation) and tenure arrangements in the country now experimenting with land titling, and decentralization initiatives.

Finally, government presence through provision of infrastructural facilities such as accessible roads, potable water and electricity supply, market, is highly essential in the agrarian rural areas of the country like the study area because continuing marginalization and neglect of these rural areas can have a spillover effect to the urban areas because there may be mobility restriction of food from the rural areas to urban settlements when the output is low, there will be little or nothing to offer for sale; this needs urgent attention as food is a great weapon to keep peace in the world.

Arising from the findings of this study are the following recommendations:

1. Government needs to encourage efficient and sustainable use of the existing cultivable land, by further investing in agricultural research, extension and development, with a view to increase the agricultural output as well as the corresponding income for households that take to farming as a major or alternative means of obtaining livelihood.
2. Then, in a situation where government has to take over the community land for developmental projects, as in expropriation; adequate compensation of land and landed properties should be done on time without prejudice; hence such should be done according to the international best practices so that the affected people will not be worse-off but better-off so as to ensure proper, adequate and timely restoration and replacement of livelihoods.
3. In addition, government should encourage the existing social organizations (thrift and credit societies) in the communities, to be formally integrated into legal and functional rural banking activities, as it is being currently practiced in Ghana and Malawi. That is, the formal financial institution, for instance, Nigerian Agricultural Cooperative and Rural Development Banks (NACRDB) can register these societies and under the umbrella of the societies; loans can then be disbursed to members.

4. More so, there is need for provision of basic infrastructural facilities such as good and accessible roads, potable water, health care centres, market, and electricity supply among others by the government. This will ensure proper preservation of the perishable agricultural produce as well as unsold fish stocks in addition to the local preservation people employed (fish smoking), minimise costs of transportation (water transportation) to the market which is very far from the communities, ensure good health status of the community members, then make access to the communities easy by the prospective customers and in the long run, guarantee optimal livelihood outcomes (income generated and well-being among others).

## 5. ACKNOWLEDGEMENTS

My immense gratitude goes to Allyson Bedford (Senior Sustainability Consultant), International Development Consultants Ltd. (I.D.C), U.K and Dr. Steve Abah (M.D, Ambah Project International, Port Harcourt, Rivers State, Nigeria) for their immeasurable financial support and for taking time to painstakingly read through this manuscript. Also, I acknowledge the support of my supervisor, Prof. M.A.Y Rahji of the department of Agricultural Economics, University of Ibadan, Nigeria for his constructive criticism when conducting this research work. More so, I want to show my profound appreciation to the good and wonderful people of Ode-omi kingdom of Ogun water side Local Government Area of Ogun State, Nigeria for the support and attention given to me during the conduct of this exercise. Then, the support of my parents (Engr and Mrs K.F Olawuyi) in kind and cash cannot be underestimated; to this I say a big thank you. Finally, I want to say God bless to my wonderful wife, Princess 'Tosin Adedolapo Anjorin Olawuyi for her moral and spiritual support during the course of this research work, I will always love you till eternity.

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