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Socio-Ecological Effects and Coping Strategies of Migrant Fishermen in Selected Communities in Gbarain & Ekpetiama Clans of Bayelsa State Nigeria

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Abstract

The migration of the fishing folks remains one of the most important demographic factors that affect the environment. Despite this awareness, the study of population and the terrestrial environment has been under-researched. This study therefore examined the socio-ecological effects and coping strategies of migrant fishermen in Gbarain and Ekpetiama Clans of Bayelsa State. This study is anchored on social ecological model. The survey interviewed 180 migrant fishermen in a snowball sampling technique using questionnaire in four communities (Agudama-Ekpetiama, Tombia, Gbarantoru and Polaku) of the clans. Descriptive statistics was utilized as the analytical tool of the data collected from the field of study. Findings showed that 67.8% of the respondents indicated suspicion about the social relationship that existed between migrant fishermen and the host communities. Out of these, about 37.0% said the suspicion was based on the fear of species' extinction due to the use of chemical substances (8.3%) for fishing, 30.6% signified wife elopement as the reason for suspicion, 18.9% said fear of religious sects invasion in their communities. Because of the feedback loop system of the migrant fishermen's activities on the environment, findings further revealed that most migrant fishermen (71.1%) were faced with ill-health conditions. Findings also revealed that most migrant fishermen (61.1%) coped with their ill-health conditions by patronizing traditional and spiritual healers for health care. This study therefore concluded that while migrant fishermen should be encouraged to establish cordial relationship with the host communities, the use of chemical substances or other methods of fishing that may result to ecological problem should be discouraged.

Keywords: Migration, Fishing Folks, Species Extinction, Environment, Ecosystem

Introduction

The fishing folks that leave their natural community and moves from one habitation to another in fulfillment of their fishing occupation have become a common demographic and environmental phenomenon in Africa (Tawari, 2002). In effect, migrant fishermen are a select group of artisanal fishermen that embark on extended or prolonged foraging. However, because of the distance of the fishing grounds from the home base, it is required that there should be a change of residence. Although not all artisanal fishermen embark on such fishing expeditions; this suggests that all migrant fishermen may be artisanal, but not all artisanal fishermen migrate. Ezewu and Tahir (1997) therefore concluded that in order to define migrant fishing activities, there should be a combination of full-time fishing practice and residential mobility.

However, the connection between labour migration and fishermen was created by Diaw (1983) when he examined the social and production relationships among artisanal fishers of West Africa. Diaw further noted that the movement of migrant fishermen is associated with two forms of movement in fisheries which are: 'Regulated Fishing Migrations' and 'Labour Migrations'. Adepoju (1991) who has carried out extensive studies on labour migration in Africa, also observed that large scale internal migration were carried out by nomads, semi-nomads including fishermen in West African sub-region. This means that most fishermen migrate seasonally over long distances. As such, migration is often an integral part

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of the fishing profession, which can be seen as a social adaptation to a complex environment.

Jul-Larsen and Kassibo (2001) investigated the patterns of movements among migrant fishermen in the Niger's Central Delta regions. It was observed that the migrant fishermen extensively practice internal and international migration as much as the conventional migrant workers. Studies conducted by Randall (2005) further confirmed these migration patterns in African continent. Priya and Daniel (2003) examined the rationale for the movement of migrant fishermen from one geographic location to the other and concluded that favourable climate, better food supply, freedom, profitable employment, availability of water for fishing or wetland for cultivation during dry season attracted most fishermen to new destination, while the factors that 'push' migrant fishermen away from their origins include shortage of food, poverty, flood, lack of job to do in a particular season. Of course, this is consistent with Lee's (1966) 'pull-push factors' of migration.

There are different explanations on the motivations that compel people to migrate. At one extreme, there is voluntary migration while at the other extreme there is involuntary migration. While voluntary movement is orchestrated by economic reasons, involuntary movement is associated with extreme economic and social hardship, which is usually undertaken mostly by landlessness, unskilled and illiterate poor laborers (Ramana, 1991). As Rao (2001) submitted, there are three kinds of migration based on the socio-historical contexts of migrants: (i) migration which is for coping and survival; (ii) migration which is for an additional work/income and; (iii) migration which is for better remuneration, work environment and opportunity to use skills or acquire new skills.

Dupe (1975) noted that there is seasonal migration among farmers and fishermen in the Lake Chad area. Fregene (2007) in his study of the profile of fishermen migration in Nigeria and implication for a suitable livelihood observed that the main reason why fishermen migrate is because of the seasonality in fish catch. It is thus safe to state categorically that seasonal migration is a demographic and environmental phenomenon throughout West Africa and Africa at large.

According to Abobi, Flitner and Alhassan (2015), the movement of people from one geographic location to the other does not only impact significantly on the well-being of the migrants, but is also seen as a social phenomenon that affects the ways people use and manage the natural resources at their disposal. As Curran (2002) argued, the movement of fishermen remains one of the most important demographic factors affecting the environment. Despite this, it is one of the most difficult social phenomenon that is under-researched in environmental studies.

For example, several researchers have proposed that there is a link between population and the environment. Bilsborrow and Ogendo (1992) in their study on population and the environment submitted that migration is part of a multiphasic response to environmental change. Emphasizing on this, Cassels, Curran and Kramer (2005) observed that out-migration is the last resort after land has been overused and degraded. As a result of this, Curran (2002) suggested that beyond the contribution of migration to simple population increase in a given society, migration may or may not adversely affect the terrestrial environment. Yet, Curran and Agardy (2002) averred that the extraction of resources from the environment for human livelihoods affects the physical environment.

As Curran (2002) further commented, evaluating the impacts of migrants on the environment requires comparing their knowledge and technological skills including their wealth and access to resources with comparable attributes of non-migrants. In view of this, three fundamental research questions are usually raised by the previous scholars in population and the environment: (1) the extent an ecological resource base attracts migrants; (2) the extent migrants differ from non-migrants in their ecologically destructive behavior; (3) the extent the capacity of social institutions is strained by migrant incorporation and serves as a more proximate explanation for resource degradation (Bilsborrow and Ogendo, 1992; Curran, 2002; Bilsborrow, 1992).

Nonetheless, most of these studies have examined the impact of migration on the terrestrial environment especially the varieties of mediating factors that explain the relationship between migration and the terrestrial environment such as how technology, indigenous knowledge, social institutions and markets mediate resource extraction and consequent resource degradation or enhancement. The ecological effects of migrant fishermen as well as their coping strategies are equally important in the study of the migration and the environment. This study specifically examined the socio-ecological effects and coping strategies of migrant fishermen in selected communities in Bayelsa State, Nigeria.

Theoretical Framework

The Social Ecological Model is adopted as the theoretical underpinning of this study. This model was originally introduced to urban studies by sociologists in Chicago School after the First World War. The model explains that the understanding of the dynamic interrelations among various personal and environmental factors is crucial to bridging the gaps between behavioural theories and anthropological theories. Drawing from Bronfenbrenner's ecological framework for human development, the entire ecological system in which growth occurs needs to be taken into account. According to Bronfenbrenner's ecological model, a child's biological and psychological makeup are based on both individual and genetic developmental history, which continues to be affected and modified by the child's immediate physical and social environment (microsystem) as well as interactions among the systems within the environment (mesosystems) (Bronfenbrenner, 1994).

Thus, as the child grows, the social, political and economic conditions (exosystem) also combine to influence the structure and the availability of microsystems and the manner in which they affect the child's growth. Similarly, the social, political and economic conditions of the child are themselves influenced by the general beliefs and attitudes in his environment (macrosystems) as shared by members of the society (Bukatko and Daehler, 1998).

Building on the natural ecosystems which are defined as the network of interactions among organisms and between organisms and their environment, social ecology model is a framework or set of theoretical principles for the understanding of the dynamic interrelations among various personal and environmental factors (Schulze, 2005). The model pays explicit attention to the social, institutional and cultural contexts of people and environment relations. This also emphasizes the multiple dimensions of the physical environment (including social and cultural environment) and individual personal attributes within a complex human group situation (McLaren and Hawe, 2005). This model also incorporates the concepts of interdependence and homeostasis from ecological systems theory to characterize reciprocal and dynamic person-environment transactions (Stokols, 1992; 1996).

As individual migrant fishermen remain the key agent in ecological systems of the study area, there are several attributes such migrant fishermen in the environment. This means that from an ecological perspective, migrant fishermen are both postulates that are taken for granted and as a unit of measurement. First, an individual requires access to an environment upon which he is dependent for knowledge; second, he is interdependent with other humans in the same population and cannot exist otherwise; third, he is time bound with a finite life cycle; fourth, he has an innate tendency to preserve and expand life; fifth, he has the capacity for behavioral variability (Hawley, 1986). This model is thus applicable to the processes and conditions that govern the lifelong course of human development in the actual environment in which human beings live (Bronfenbrenner, 1994), which cannot be ignored in the explanations of their existence in a population. This is by implication suggesting that migrant fishermen are the key agents in the ecological systems of the environment they find themselves and that their activities cannot be explained without considering the reciprocal and dynamic person-environment transactions they are involved in.

Methods and Data

Using a snowball sampling technique *via* home town associations of migrant fishermen, the survey sampled 180 fishermen in four selected communities of Gbarain and Ekpetiama Clans where migrant fishermen were concentrated in Bayelsa State (Nigeria). The selected communities are Agudama-Ekpetiama, Tombia, Gbarantoru and Polaku respectively. This technique was primarily adopted due to the lack of migration official data wherein migrant fishermen can be probabilistically sampled for the administration of the study instrument.

The instrument of questionnaire was employed to gather relevant information on the socio-demographic characteristics of the respondents, factors associated with the movement of migrant fishermen from their respective origins to the destinations, socio-ecological effects of migrant fishermen's activities, as well as their coping strategies at the destinations. Due to the fact that most of the migrant fishermen found it difficult to read and write effectively, the researcher recruited research assistants who could interpret and explain the content

of the questionnaire instrument for them to respond appropriately.

For the purpose of this study however, migrant fishermen are those who moved from one geographical location to the other for fishing activities. Socio-ecological effects are referred to as various interactions and feedback loops that exist between human conditions and the environmental conditions (Walker and Meyers, 2004). In this study, the human-environmental conditions range from the relationship of migrant fishermen, methods of fishing, sources of drinking water, nature of accommodation to incidences of diseases in the community of migrant fishermen. This instrument was validated using face validity.

The data gathered for this study were analysed using descriptive statistics. The analysis employed simple percentages and frequency distribution table. It is also noteworthy that informed consents were sought from the respondents before the actual administration of the research instrument. All other ethical considerations in the conduct of the research were duly observed.

Results

Socio-Demographic Profile of Respondents

Table 1 shows the socio-demographic profile of the respondents. As the table revealed, more than half of the respondents are male (57.2%) when compared to their female counterparts (42.8%). This suggests that there are more male migrant fishermen than the female ones. On the basis of ethnic groups of the migrant fishermen, Hausa migrant fishermen had the highest percentage (63.3%), followed by Ijaw ethnic group (20.6%) and Epie ethnic group (8.5%). This means that there are more Hausa migrant fishermen in the study area when compared to migrant fishermen from other ethnic groups.

The distribution of respondents by age groups revealed that age group 30-34 has the highest percentage of respondents (41.1%), followed by age group 25-29 (20.6%), and those in age group 35-39 (17.2%) respectively. This implies that majority of the migrant fishermen are adults when compared to those below age 30.

Further analysis of the socio-demographic profile shows the distribution of respondents by marital status. As the table indicated, majority of the respondents are married (53.3%) when compared to those that are single or widowed/widower. The distribution of respondents by educational attainment revealed that majority of the respondents (54.4%) had no formal education; while 31.7% of the respondents signified that they attended primary school education. formal education. This suggests that majority of the migrant fishermen have not acquired higher level of formal education when compared to those who did.

Table 1: Socio-Demographic Characteristics of the Respondents

Demographic Variables	*Frequency (n=180)*
Gender	
Male	103 (57.2)
Female	77 (42.8)
Ethnic Groups	
Ijaw	37 (20.6)
Epie	15 (8.3)
Hausa	114 (63.3)
Others	14 (7.8)
Age Group	
<20	18 (10.0)
25-29	37 (20.6)
30-34	74 (41.1)
35-39	32 (17.2)
>40	19 (10.6)
Marital Status	
Single	27 (15.0)
Married	96 (53.3)
Widow/widower	35 (19.4)
Divorced/separated	22 (12.2)
Educational Attainment	
No formal education	98 (54.4)
Primary	57 (31.7)
Secondary	25 (13.9)
Tertiary	-
Average Income per Month	
<N5,000	28 (15.6)
N5,000-N9,999	34 (18.9)
N10,000-N14,999	47 (26.1)
N15,000-N19,999	56 (31.1)
N20,000 and above	15 (8.3)
Religious Affiliation	
Christianity	57 (31.7)
Islam	92 (51.1)
Traditionalist	31 (17.2)

In terms of average income earned per month, it was reported that the highest percentage of the respondents (31.1%) earned between N15000-N19999 in a month, followed by 26.1% of the respondents who received between N10000-N14999, and 18.9% earned between N5000-N9999. This implies that only few of the respondents earned above national minimum wage on the average per month. Relative to religious affiliation, 51.1% of the respondents signified that they are Islam, 31.7% said Christianity while 17.2% of them indicated traditionalist. This suggests that majority of the respondents are Muslim when compared to other religion. This also confirms the fact that majority of the migrant fishermen are Hausa which mostly practice Islamic religion.

Causes of Migration of Migrant Fishermen

Studies have shown that various factors affect the movement of people from one geographical location to the other (Priya and Daniel, 2003; Lee, 1966). However, in order to ascertain the factors responsible for the movement of migrant fishermen from their respective places of origin(s), respondents were asked those factors that served as 'push-pull factors'. The result is shown in fig. 1.

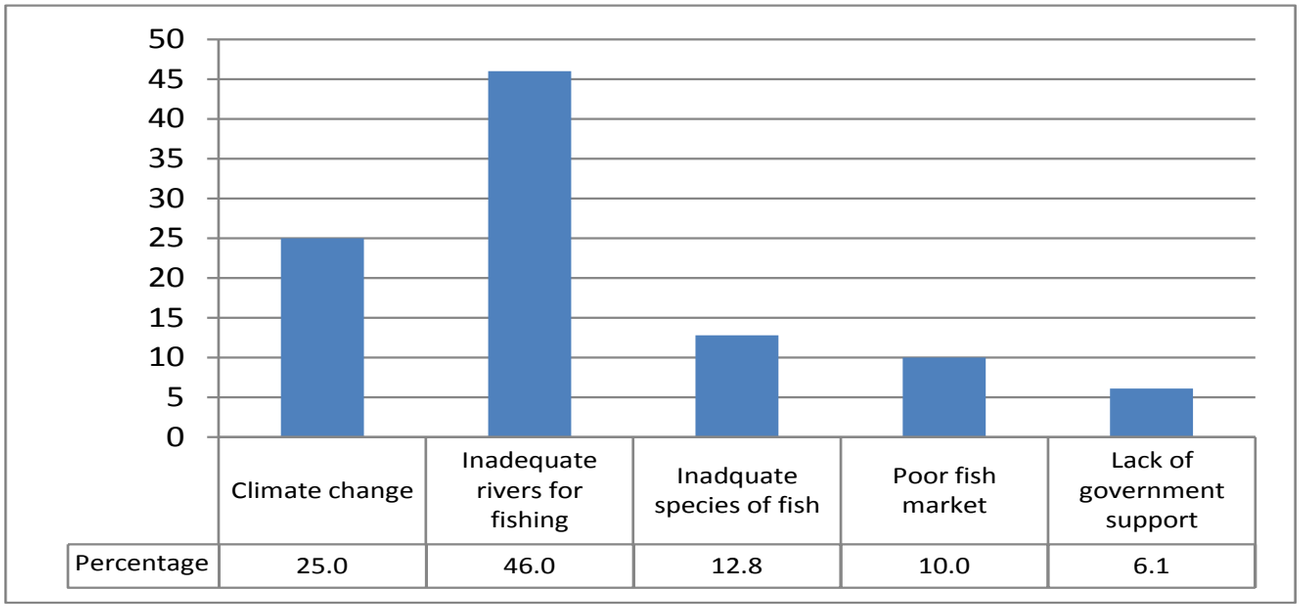

Fig. 1: Percentage Distribution of Respondents by Reasons of Movement

As indicated in figure 1, the highest percentage of the respondents (46.0%) said they moved as a result of inadequate rivers for fishing in their origin, followed by 25.0% of the respondents who signified that they moved to their destination due to climate change, and 12.8% said they moved because of inadequate species of fish in the rivers located in their respective origin. This implies that majority of the migrant fishermen in the study area moved due to inadequate river for fishing at their origin when compared to other factors identified.

Socio-Ecological Effects of Migrant Fishermen

Table 2 shows the socio-ecological effects of migrant fishermen at the destination. As indicated in the table, more than half of the respondents (67.8%) perceived their relationship with indigenous fishermen as suspicious when compared to those who indicated cordial (32.2%). Further analysis of this response identified the reasons for their suspicion. The highest percentage of respondents (35.0%) said that they felt so suspicious due to the fear of fish extinction which could be caused by the activities of migrant fishermen, followed by 30.6% of the respondents who subscribed to the fact that the influx of migrant fishermen into the host communities could result to wife elopement, and 18.9% of the respondents signifying that migrant fishermen could be harbinger of religious sect because of the fear of those that have migrated from religious sect prone-zone in northern Nigeria to the southern part of the country.

Also found in the analysis of this study is the seasonality of fishing activities of the migrants. About 58.3% of the respondents agreed that fishing is seasonal at the

destination, while 41.7% of the respondents did not. The interval of the seasonality was ascertained from those that agreed, it was reported that more than half of the respondents pinpointed between 1-3 months interval. This also implies that majority of the migrant fishermen are likely to observe one to three months break before resuming for another season of fishing. Consequent upon the activities of migrant fishermen in the study areas, it was needful to examine the methods to which they employed for fishing activities. Table 2 showed that 35.0% of the respondents signified that they employ both fishing net, hook and spear for fishing, 22.8% indicated fishing net and hook, 16.7% said fishing net only, 8.3% used chemicals, while 17.2% of the respondents said all methods of fishing. Although those who indicated chemicals (8.3%) and all of the above methods may not have the knowledge of the detrimental effects of the use of chemicals for fishing as it may result to species' extinction and water contamination, it is obvious that the use of chemicals for fishing by migrants may impact significantly to the ecosystem.

Table 2: Distribution of the Respondents by Socio-Ecological Effects of Migrant Fishermen

Variables	*Frequency (n=180)*
Relationship with indigenous fishermen	
Cordial	58 (32.2)
Suspicious	122 (67.8)
Reasons for relationship being suspicious	
Fear of fish extinction	63 (35.0)
Suspicious about wife elopement	55 (30.6)
Suspicious about fish market domination	28 (15.6)
Suspicious about religious sect	34 (18.9)
Seasonality of Fishing	
Yes	105 (58.3)
No	75 (41.7)
If yes, interval of seasonality	
1-3 months	77 (73.3)
4-6 months	22 (21.0)
7 and above months	6 (5.7)
Not applicable	75 (-)
Methods of fishing by migrants	
Fishing net only	30 (16.7)
Fishing net and hook	41 (22.8)
Fishing net, hook and spear	63 (35.0)
Chemicals	15 (8.3)
All of the above method	31 (17.2)
Source of drinking water for migrant fishermen	
Flowing river	26 (14.4)
Lake water	32 (17.8)
Well	16 (8.9)
Sachet water/bottled water	38 (21.1)
All of the above	68 (37.8)

Variables	*Frequency (n=180)*
Place of accommodation	
Host community	95 (52.8)
Fishing camp	62 (34.4)
Mobile house	23 (12.8)
Number of house occupants (per room)	
1	13 (7.2)
2	21 (11.7)
3	17 (9.4)
4	27 (15.0)
5 and above	102 (56.7)
Incidence of diseases	
Yes	128 (71.1)
No	52 (28.9)
If yes, types of diseases common	
Malaria	46 (35.9)
Diarrhea	12 (9.4)
Typhoid	17 (13.3)
Cough	19 (14.3)
Measles	11 (8.6)
Others	23 (18.0)
Not applicable	52 (-)

Indeed, the sources of drinking water of migrant fishermen were ascertained among the study population. It was revealed that the highest percentage of the respondents (37.8%) sourced their drinking water from both the flowing river, lake water, well, as well as sachet water popularly known as 'pure water', followed by 21.1% of the respondents who drink from sachet/bottled water, and 17.8% indicated lake water (stagnant water). Of course, the danger of drinking from contaminated water may not be known by the migrant fishermen, yet as part of the feedback loop system of their activities, this may be detrimental to their health and well-being.

Existing literature has shown that most migrant households accommodate more than three to four persons per room (Adepoju, 1983) suggesting that housing problem and overcrowding is a common social phenomenon among migrants in developing countries. In view of this, respondents were asked the place of their accommodation. It was indicated that majority of the respondents (52.8%) lived within the host community, followed by 34.4% of the respondents who pointed out that they lived at the fishing camp though they came at regular intervals to stay in the host community, and 12.8% said they use traditional mobile houses. In a further analysis of number of persons per room, it was revealed that more than half percentage (56.7%) of the respondents signified five and above persons per room when compared to those who indicated one (7.2%) and two (11.7%) per room. This further confirms Adepoju's assertion on migrant fishermen whose majority of their households accommodate more than three to four persons per room.

The consequences of these living conditions were further ascertained in respect to their health *via* the incidence of diseases among migrants. Majority of the respondents (71.1%) agreed that they experienced some forms of illnesses with 35.9% having malaria, 9.4% diarrhea, 13.3% typhoid, 14.3% cough, 8.6% measles, 18.0% identifying other forms of diseases such as yellow fever, hepatitis, among others. Obviously, the migrant fishermen exist in an environment where it is inevitable for them to interact with social, economic and biophysical environment. However, it is understood that the feedback loops of their activities on their health, physical environment, host community and the entire ecosystem are significant.

Coping Strategies of Migrant Fishermen

The coping strategies are referred to as the various activities engaged in by migrant fishermen in order to adjust to the new social, economic and physical environment. In order to achieve this, respondents were first asked about their religious coping strategies in the host communities. Table 3 reports that 49.4% of the respondents still continue to practice their religions without any form of dissension, followed by 30.0% of the respondents who subscribed that they worship at separate environment and 13.3% signifying that they changed to prevailing religion at the host communities. Although majority of the respondents practice their religions without dissensions, it should be noted that *albeit* the religious and ethnic crisis in the country, suspicion of religious violence are in vogue. This may have implication on migrants' mode of worship, which also motivated worshipping at separate environment.

Analysis of respondents coping strategies with the host communities' members revealed that the highest percentage of the respondents (40.6%) coped with their respective communities' members by selling fish at lower prices to communities' members, followed by 25.6% who subscribed to making friends with communities' members, 19.4% said they attended special occasions with communities' members, while 14.4% indicated that they bought drinks for communities' members. This implies that various strategies were adopted by the migrant fishermen in order to ensure peaceful co-existence with their respective host communities.

In another measure of coping strategy, respondents were asked about their coping strategies with indigenous fishermen, the table shows that the highest percentage of respondents (54.4%) signified that they coped by making friends with indigenous fishermen, followed by 30.6% indicating that they did fishing together sometimes, and 15.0% said they had meetings regularly with indigenous fishermen. This also suggests that most migrant fishermen coped with indigenous fishermen almost the same way they coped with the host communities' members.

Further analysis of coping strategies especially with people in the market shows that about 46.1% of the respondents coped by selling at lower prices to attract more customers, 26.7% said they coped by adopting door-to-door advertisement, 18.9% indicated that they sell their fish outside their respective host communities. This implies that majority of the respondents coped with fish market by selling at lower prices in order that they may sell in large quantities when compared to the indigenous fishermen who may want to sell at higher prices.

Table 3: Distribution of Respondents by Coping Strategies

Coping strategies	*Frequency (n=180)*
Religious coping strategies	
Continuous practice of migrant's religion	89 (49.4)
Change to prevailing religion at the host community	24 (13.3)
Practice both migrant's religion and host community's religion	13 (7.2)
Worship at separate environment	54 (30.0)
Coping strategies with host community members	
Make friends with community members	46 (25.6)
Buy drinks for community members	26 (14.4)
Attend special occasions with community members	35 (19.4)
Sales of fish at lower prices to community members	73 (40.6)
Coping with indigenous fishermen	
Regular meetings with indigenous fishermen	27 (15.0)
Make friends with indigenous fishermen	98 (54.4)
Fishing together sometimes	55 (30.6)
Coping with people in the market	
Attend market in group	15 (8.3)
Sell at lower prices	83 (46.1)
Door-to-door advertisement	48 (26.7)
Sales of fish outside host community	34 (18.9)
Coping with accommodation challenge	
Coming home late before sleeping	16 (8.9)
Sleeping outside the house when there is no rain	28 (15.6)
Household members remain at the origin	92 (51.1)
Running shift for fishing activities	44 (24.4)
Coping with health challenges	
Visit clinics	18 (10.0)
Visit traditional healers	110 (61.1)
Visit spiritual healers	23 (12.8)
Use self-medication	29 (16.1)

Coping with accommodation challenge was also ascertained from the respondents. It was revealed that more than half percentage of the respondents (51.1%) coped with accommodation challenge by allowing

household members remaining at the origin while they moved for fishing, 24.4% of the respondents said they run shift for fishing activities such that though may not be deliberate but some do fishing during the day while some do in the night, 15.6% indicated that sleep outside the house when there is no rain in order to cope with the condition of overcrowding. Despite the fact that majority of respondents alluded to the fact that they allowed their household members remain at their respective origin while they moved for fishing, the overcrowding challenge of accommodation is still prevalence among the migrants. This follows that although migrant fishermen may not be living together with their household members, yet the issue of kinship among migrants with a quest to maintain social bond among migrant of the same ethnic group is still in vogue.

On the coping strategies with health challenges of migrant fishermen, majority of the respondents (61.1%) said they visit traditional healers compared to those who use self-medication (16.1%), and visit spiritual healers (12.8%). This may portend serious health challenge when majority of the respondents do not visit modern health care facilities for medication.

Discussion of Findings

This study focused on the socio-ecological effects and coping strategies of migrant fishermen in selected communities in Bayelsa State (Nigeria). This study amongst other findings has shown that migrant fishermen from Hausa ethnic group dominated the selected communities in the study areas. The study further revealed that there are social and physical environmental effects of the immigrants in the study areas. Because of the fear of religious sects and wife elopement by the indigenous people of the selected study communities, there is suspicion that migrant fishermen may be threatened in relating with the host communities effectively. In terms of the physical environment, there is also the fear that some of the methods used by the migrant fishermen for fishing activities may result to species extinction. This finding is found in tandem with Curran and Agardy (2002) that the extraction of resources from the environment for human livelihoods by migrants affects the physical environment. Sibiri (2009) also noted that the use of dynamite and other chemicals for fishing was detrimental to the environment and leads to over-harvesting and food insecurity.

This study has also found that among the consequences of the activities of the migrant fishermen, which may be unknown to them is their exposure to environmental hazards that can affect their health status negatively especially in their exposure to ill-health through the unsanitary sources of drinking water. This is found consistent with the work of Sikoki and Abowei in Sibiri (2009) who stated that the river water as a source of drinking water within the Niger Delta area was hazardous to health. it is in realization of this that the migrants adopted sachet water as their source of drinking water which is one of their coping strategies.

This study also showed that there are other various activities engaged in by migrant fishermen in order to adjust to the new social, economic and physical environment ranging from continuous practice of their religions without any form of dissension, worship at separate environment and changing to prevailing religion at the host communities. Another strategy devised by migrant fishermen to cope socially with the host communities are selling fish at lower prices to communities' members, making friends with communities' members as well as attending special occasions with communities' members where necessary. Of course, these have created mutual benefits between the host communities' members and the migrant fishermen. This is in agreement with Rao (2001) who identified that migration is for coping and survival. Meaning that migration and survival strategies are inextricably linked.

Conclusion

Inspite of the numerous challenges of migrant fishermen and the various coping strategies adopted for their survival, this study showed that the relationship between the migrants and the indigenous people of Gbarain and Ekpetiama Clans of Bayelsa state is symbiotic. This is fundamental in the face of present realities like the saga of the herdsmen incursion in Nigeria. It is therefore instructive and conclusive to advice that mutual coexistence between migrants and host communities is quite imperative to sustainable peace.

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