

THE QUEST FOR SUSTAINABLE LIVELIHOODS

Women Fish Traders in Ibaka, Niger Delta, Nigeria

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Women Fish Traders in Ibaka, Niger Delta, Nigeria

Ekaete Udong

Thesis

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Dedication

To my father who had unshakeable faith in what I could achieve; to Inyene, and to the women all over the world who have overcome.

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CHAPTER 1

Introduction

“The notion of agency attributes to the individual actor the capacity to process social experience and to devise ways of coping with life, even under the most extreme forms of coercion. Within the limits of information, uncertainty and the other constraints (e.g. physical, normative or politico-economic) that exist, social actors are “knowledgeable” and “capable”. They attempt to solve problems, learn how to intervene in the flow of social events around them, and monitor continuously their own actions, observing how others react to their behaviour and taking note of the various contingent circumstances”

(Long 1992: 22-23)

1.1 Motivation for the study

The motivation for this study stemmed from my experience and observations of fishing communities where I had been working for over twenty five years on development projects and programmes involving fisherfolk groups along the entire Nigerian coastline. In the period between 1989 and 1995 during which time I managed a credit scheme which was implemented for fisher-folk in three of the six Niger Delta States by the Nigerian Agricultural and Cooperative Bank (NACB), I noticed that even though the loan facility was meant for all viable economic groups in the communities, during the first six months only men’s groups were applying for and obtaining the loan. Women could not access the loans even though the conditions were considered very reasonable and loan officers were mandated to take the loans to the villages so as to reach every prospective beneficiary. On enquiry from the loan officers why only men were considered suitable for the loan by them they complained that women were afraid of taking the loan. On further enquiry and analysis of the reports after the first year of the project, it was discovered that women could not get themselves sufficiently organized to enable them benefit from the facility, and the few women that benefitted were enlisted by their husbands into men’s groups, and lost the money approved for them to their husbands who promptly collected it on their behalf from the group. They thus owed the bank money they had not even set their eyes on. When investigating the matter, it was discovered that apart from the fear of losing loan money to husbands, there were many other reasons why the women did not obtain the loans. They either did not belong to any group or only belonged to *osusu* groups (informal rotating savings and credit associations) groups, which could not just get properly

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organized. In some cases they did not want to be seen as being too forward by their husbands since the credit officers were men. The credit officers catered to the interests of the men only, since most of the women were illiterate, lacked confidence and were inexperienced in these matters. They just did not trust that the bank was serious and would give them loans without insisting on collateral. It took a lot of encouragement, coaching of the women and re-orientation of the credit officers and extension staff before the women fish traders eventually felt confident enough to form functional groups and present them for funding by the bank. (IFAD PCR 1997).

In the interim, during the first two years of the project the men obtained the loans and acquired new outboard engines, fishing nets, fishing boats and accessories and landed a lot more fish than usual. Since the fish was sold only for cash at the beach and the women fish traders' working capital had not increased due to their inability to access loans, they could not buy up the excess fish that were landed during the peak season.

The fishermen could not find any alternative means of offloading the fresh fish since the bad road would not allow the traders to get the fish out to the cities easily, and there was no storage facility due to the lack of electricity in the village. Also, the women's fish traders' associations at the beach would not allow non-members from outside to purchase the fresh fish from the boats; if other women fish traders came from outside Ibaka, they would not be allowed to purchase the fish. Only *bonga* (*Ethmalosa fimbriata* and *Sardinaella* species) and crayfish were smoked before being sold. Big fish species were mostly sold fresh by custom, and apart from smoking there was no alternative means of adding value to the fish landed. The result was a glut during each peak season which resulted in fish being sold too cheap, and the throwing back of unsold fish into the river at the end of the day. This resulted in losses for the fishermen and the accompanying effects of insufficient incomes to fund subsequent fishing activities and loans repayment. The fishermen were thus perpetually indebted to the fish mummies who gave them loans for equipment, nets and accessories, food, fuel and oil for fishing trips, and sometimes maintained the boat's crew and their families. Fishermen who took loans for fishing equipment from the bank were also unable to pay their monthly loan installments due at the bank, resulting in loan defaults. Women were meanwhile saddled with their children's upkeep and the responsibility of taking care of the household's needs single-handedly.

With the intervention of the project, technical assistance was provided for the women. Women were mobilized into groups which were subsequently strengthened to enable them access the loans, and by the second year of the project women started obtaining loans for working capital to finance their fish trade. This led to increased incomes for both the fish traders and the fishermen. On realization that the women had accessed the loans, were able to buy a lot more fish, and were making more money, those husbands who were earlier contributing to their households' upkeep stopped and it affected the women's capacity to repay on schedule. Thus the bank's intervention in the fishing communities, apart from increasing the incomes of the fisher-folk, actually brought mixed blessings for a small fraction of the women fish traders and brought out their predicament. It became apparent that the maintenance of the households was the sole responsibility of the women fish traders. We therefore introduced second-timer loans as incentive for prompt repayments, which the women groups actually took advantage of.

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While the project was on-going we monitored but could not really evaluate the fish traders' performance in their domestic and economic domains. This research programme gave me an opportunity to revisit many of the fishing communities funded by the NACB, and because of its peculiarity, and recommendations from other fisheries professionals, Ibaka was chosen as the project site. It happens to be one of the biggest and most dynamic fishing communities in the Niger Delta, with a large population of fishermen and women fish traders.

The study looks at the livelihood strategies of the fish processors and traders in Ibaka, the challenges they face and their adaptation strategies. Their performance in the economic and domestic domains, in the context of the prevailing cultural and institutional constraints also became an important issue to consider. Special attention was also paid to the possible impacts of the HIV epidemic on the livelihood security of the women's households. HIV and AIDS have been reported to constitute an additional threat to sustainable livelihoods in Africa (Niehof et al. 2010). When the household is affected, women bear the multiple burden of caring for the infected, feeding the household and earning income, resulting in time constraints, lower incomes, higher health risks, higher health and labour costs, debts and school dropouts (Nombo 2007).

The study was made possible under the African Women's Leadership in Agriculture and the Environment (AWLAE) Programme of Winrock International, United States of America, which has as one of its major goals "Enhancing the role of women in food systems in Africa", with sponsorship from the Government of The Netherlands, which provided the funds to cover the programme.

1.2 The AWLAE programme context and its significance for Nigeria

The AWLAE is a Pan-African programme that aims at training women professionals in the fields of agriculture and environment, to redress the existing gap between male and female representation in professions relating to these fields. AWLAE was initiated by Winrock International in 1989. Its goal is to prepare self-confident, risk-taking, pioneering women leaders, as individuals and as a group, to bring about gender-sensitive policies and programs, and practices that will positively affect the lives of people. AWLAE inspires, empowers and mobilizes professional women as leaders and advocates for rural women. The model of the programme, designed in 1989 by African women and men, operates in 13 African countries. The objectives of the AWLAE programme include:

- The preparation of women leaders through Leadership for Change Training, Post-graduate Scholarships, and Mentoring.
- Building an enabling professional environment through partnership with institutions, sourcing for grants for gender activities, gender training, working in partnership with men, public advocacy, and research on the issues of women farmers and professional women.
- Creating a sustainable impact through the establishment of professional associations, training centres, and the production of a Chrysalis - a training

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package for Leadership Training for Pioneering Women, and a Leadership for Change CD-Rom.

The programme operates on macro and micro levels. At the macro level, it helps women advance to influential positions to change the policies and programmes affecting rural women, and at the micro level, it organises mentoring, technology transfer, gender training and school scholarships for rural women and girls. In other words, the AWLAE programme is driven by the commitment of professional women who link the key agricultural and environmental institutions directly with the rural people in the field.

The present thesis is one of a series. It represents the fruits of a collaboration between AWLAE, Winrock International (WI), and Wageningen University and Research Centre (WUR). It is funded by the Department for Development Cooperation of the Netherlands Ministry of Foreign Affairs. The goal of the project is to build a cadre of well-trained African women professionals working in agriculture, environment and related sectors to enhance their academic standing and capacity to contribute to gender-relevant research and policy-making on the role of women in food systems, and the gendered impacts of HIV and AIDS on food security and rural livelihoods in Sub-Saharan Africa. In June 2002, the Ministry agreed to fund twenty PhD scholarships at the Wageningen University and an additional Leadership-for-Change training for the twenty PhD scholars, drawn from twelve African countries. The project was started in February 2003.

The AWLAE programme, if successful, will have significantly positive consequences for Nigeria because this training will have a multiplier effect on many other professional women who would act as role models in the society. In addition, with commitment and support, the products of the programme can definitely get into prominent positions in government and the civil society, where they can influence policy and contribute to the socio-economic development of the country.

1.3 Elaboration of the research problem

The Federal Republic of Nigeria, with a land area of 923,768 square kilometers, is West Africa's most populous country where about 140 million people reside and are struggling to make a living. In comparison with the other fifteen countries in the sub-region, it is much richer in resources, both human and material. It has a population density of 152 persons per square kilometer (FOS 2006; Macmillan 2007), and is blessed with a lot of resources including oil and gas, bitumen, gold, coal, tin, iron ore, bauxite, kaolin, silica, lead, zinc, columbite. It also has arable land, forestry and fishery resources, with a coastline of about 853 km length. Despite all these, more than 70 per cent of the population is wallowing in poverty. This has been attributed to the quality of leadership the country has been saddled with since its independence.

Nigeria's enormous oil wealth has so far translated into poverty for most of its people as its GDP per capita, at \$1128, is lower than that of non-oil producers like Ghana (\$2370) and Senegal (\$1770) (UNFPA 2007). Seventy five percent of its households, many of which are female-headed are poor. Currently, women constitute 51 per cent of the Nigerian population

Introduction

with 41 percent of them illiterate. They have a low economic status and 70 percent are involved in agriculture and the informal sector (UNFPA 2007; World Bank 2006). The median marriage age is 18 years and the fertility rate in 2007 was 5.38 children. Their HIV prevalence rate, at 4.7 percent, is higher than that of the men (UNFPA 2007; UNAIDS 2006; Müller 2005).

Most of Nigeria's wealth is currently derived from the exploration of oil and gas in the Niger Delta. The Niger Delta, which straddles most of the 853 km of the Nigerian Coastline, occupies the South-South Zone of Nigeria, and produces all of Nigeria's oil but is the second poorest of the six zones in the country, with the lowest Human Development Index (HDI) (UNDP Niger Delta Human Dev Report 2006). The zone has consistently recorded one of the highest poverty rates in the country over the whole period of its nationhood. With the environmentally degraded land and waters, low level of education of its peoples, population pressure and lack of infrastructural facilities, the poverty is both all-pervading and gender specific, as 70 per cent of the poor are women (UNDP 2007). Due to environmental degradation from oil exploration and other non-extractive industries' activities, many men have migrated from the communities, seeking greener pastures in the cities, leaving the women to fend for themselves and their households. This has subjected the women of the Niger Delta to a life of struggle in maintaining their livelihoods and those of their households.

Akwa Ibom State is one of the six states of the Niger Delta. With a predominantly rural economy, high illiteracy rate and underdeveloped infrastructure, it is the fifth poorest of the six states in the Niger Delta (NDR Master-Plan 2004). Half of its 3.44 million people are women, and with a degraded environment, discriminatory socio-economic laws and non-progressive cultural norms they have difficulties fulfilling their productive and reproductive obligations. Women in fishing communities face conditions that are worse than their counterparts are facing in the hinterland because they are located in very remote areas, with almost non-existent infrastructural facilities, worse business facilities and a more risky living environment, making livelihood sustenance more difficult.

Studies in other places have shown that many women in fishing communities are *de facto* household heads, fending for their households without any cultural or institutional support (Verstralen and Isebor 1997; Niehof et al. 2005). They thus straddle both the domestic and economic domains, creating a double burden of having to combine productive and reproductive roles (Moser 1993). The level of performance in both domains determines the status of the women in society, their level of vulnerability, and the wellbeing of their households. In the Niger Delta, many women lack the resources and assets needed to sustain their households and attain livelihood and food security. They find it difficult to sustain their households due to institutional and cultural constraints, which add to the vulnerability of their livelihoods. Institutional and cultural constraints affect women's time allocation behaviour in rural households (Kabeer 1991; Waguespack 2005; Khandker 1988; Kevane and Wydick 2001). The denial of political and civil rights also contributes to women's vulnerability and highlights their unmet strategic gender needs (Okome 2000).

In Nigeria, patriarchy defines patterns of inheritance, kinship and other cultural norms expressed in gender relations, division of labour, value systems, ethnicity and modes of worship (Mba 1982, 2001). In addition, tasks, activities, and responsibilities are allocated according to sex and power relations manifest in practices such as division of labour, intra-

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household food distribution and decision-making (Dasgupta 2000; Waguespack 2005). Okome (2000) and Jha (2004) have also reported sexual discrimination in access to resources, food, healthcare, and education in households. Many of the fish traders in fishing communities in the Niger Delta are *de facto* household heads, being either separated from their husbands, never married, or in polygamous relationships, with husbands either at sea or in another fishing settlement (Verstralen and Isebor 1997). Haddad (1999), Bortei-Duku (1991), and FAO (1990) have also reported this trend for fishing communities in other parts of Africa and Asia, where women have to handle both the economic and domestic responsibilities. This causes stress, time allocation problems, and role conflicts, and limits women's productivity and performance both in the domestic and economic spheres (Leatherman 1996, 2005; Abrahamsen 1997; Barnett and Blaikie 1992, Haddad and Gillespie 2001; Drinkwater 2003).

HIV has been reported to be more prevalent in fishing communities (Allison and Seeley 2004). This could aggravate the women's struggle for survival in Ibaka, as it is reported to impact negatively on health, reproductive and economic activities, limiting livelihood options and causing labour shortages and asset depletion, thus making affected communities more vulnerable (Allison and Seeley 2004; Béné et al. 2005).

The objective of this research is therefore to look into the problem of how fish traders manage their trade and families for the food and livelihood security of their households. Using sociological and economic perspectives, this research looks at the structure and functioning of the market, women's access to financial capital and credit, cultural and institutional constraints the women traders experience, and their vulnerability to HIV infection and AIDS impacts. The study addresses the issues of the performance of women fish traders in the economic and domestic domains in coastal communities, the prevailing institutional and cultural constraints, the traders' response to these, and the implications for household food and livelihood security.

The main research questions derived from the research problem are as follows:

1. What livelihood strategies do the women fish traders adopt in Ibaka?
2. How do women fish traders carry out their trading activities?
3. What cultural and institutional constraints affect them in their economic and domestic domains and what strategies do they use in responding to these constraints?
4. How do they perform in the economic and domestic domains and what is the relationship between their performances in the two domains?
5. How vulnerable are the women fish traders in Ibaka to HIV infection and AIDS impacts?

If these questions are answered, this research will provide a clear understanding of the livelihood strategies adopted by the women fish traders in their economic and domestic domains, the challenges they face and the strategies adopted by them to overcome these challenges. It will also provide an understanding of their performances or non-performance in both domains, and the factors affecting them, which will contribute to the designing of appropriate intervention strategies, policies and procedures that would lead to the empowerment of women in fishing and other rural communities. It will also contribute to the sustainable development of fishing and other remotely located rural communities in Nigeria.

1.4 Scientific significance of the study

This study aims at highlighting the complexity of sustaining rural livelihoods by women in a fishing community in the Niger Delta, Nigeria through the fish trade. It also shows the flexibility and variation, which give the fish trading system its continuing ability to link other commercial and non-commercial sectors, which are characterised by constantly shifting relationships. A search for the 'typical' fish trader would be defeated by the variation in the range and scale of enterprises included, which is a characteristic feature of a major market. The fish traders represent some of the largest wholesalers on the Nigerian coastline and some of the poorest strolling hawkers, living from hand-to-mouth. Instead of trying to explain away variations between fish traders, or reduce them by dismissing all but a few significant variables, the study wishes to identify the key social forces, which generate, maintain and continue to reshape this diversity. Some of these come from the market itself while others arise from its links with the household, community, and national level processes, which create conflicting interests and pressures on the individual fish traders as they struggle for survival and the accumulation of wealth. These very contradictions constantly renew and transform the full range of trading relations, including their constraints.

The size and central economic position of Ibaka fishing community makes it an important arena for the playing out of the struggles between big and small traders selling different fish species, between women and culture, women and formal and informal institutions, and between the ethnic groups. As the largest fishing community, east of the Niger Delta, with a beach market for fresh fish and an upland market for processed fish, its traders mediate urban/rural, and fishermen/consumer relations in most parts of the country. There is continued interest in policy circles on the role of traders in food security in developing countries (FAO 2003). The Ibaka fish markets also play key roles in gender relations, housing the most powerful positions available regionally within the marketplace system, a major employment sector for women (Clark 1994). The trading strategies displayed by women in the fish trade in Ibaka also test the limits of resources women can draw on to sustain their livelihoods or accumulate capital, showing the dynamics of success and of stagnation. Thus the Ibaka fish market, with its teeming women fish traders, qualifies not just as a typical but an extreme case of both economic and gender contradictions and is an apt location for studying both in their fullest manifestations.

1.5 Structure of the thesis

This publication comprises eight chapters. Chapter 2 presents an overview of Nigeria, including the physical setting, its geographic attributes, ecology, the history of fish production and marketing, the socio-economic profile, and a description of the Niger Delta and Akwa Ibom State. Information on the socio-economic development in Nigeria during the past twenty years is presented. Topics like social change and development, socio-economic stratification, food security, gender discrimination, education, water and sanitation, health and family planning, migration, politics and government are discussed. Chapter 3 presents the literature review and conceptual framework. The definitions and operationalisation of different key

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concepts such as household, vulnerability, household livelihood strategies, assets and resources, institutions, productive and reproductive roles, sustainable livelihoods, risk, gender perspective, fisheries and livelihood security, the fish marketing system, and performance in the domestic and economic domains are also presented. The study design, data collection and analysis are presented in Chapter 4. It explains how qualitative and quantitative data were collected in the field, and how the secondary data were collected. A description of Ibaka, the project site is given, to give an insight to the challenges faced during data collection. The time frame according to which the research was carried out is also given at the end of the chapter.

Chapters 5, 6 and 7 present the results. The first part of Chapter 5 discusses the demographic and personal characteristics of the women fish traders, the second looks at life histories of women from three different categories of women fish traders: the *bonga*, big fish and crayfish trade groups. The life histories illustrate and explain the dynamics of the fish trade over time, the marketing strategies used, the amounts and sources of capital, the nature of the trade, the challenges and achievements, as well as the factors affecting the strategies used. The chapter concludes with looking at the role institutional support and favourable cultural norms could play in improving the performance of the women in their domestic and economic domains. Chapter 6 discusses fish production, the seasonal calendar, processing and trading. The social and economic structure of the fish market, the functioning of the marketing systems for *bonga*, big fish and crayfish are discussed as well. In Chapter 7, I discuss the economic and domestic performance of the fish traders, elaborating on the significance of working capital, skills, children's education, household health status, time allocation, social capital and autonomy in establishing the performance. The institutional and cultural constraints, the adaptation strategies, as well as the factors affecting the strategies adopted by the women fish traders are analyzed. The relationship between the performances in the two domains, as well as how performance in both relate to attaining household food and livelihood security are also discussed. Lastly, I discuss the vulnerability of the women fish traders in Ibaka to HIV infection AIDS impacts.

Chapter 8 contains the answers to the research questions. The key findings and conclusions of the study are discussed, as well as their implications for the women fish traders in fishing communities in Nigeria, gender and socio-economic policies and programmes of Akwa Ibom State, the Niger Delta region and the Nigerian government.

CHAPTER 2

The country and the research area

2.1 Country profile

2.1.1 Physical setting and ecological conditions

The Federal Republic of Nigeria is situated between Longitudes 3⁰ - 14⁰ E and Latitudes 4⁰ - 14⁰ N, and has a total area of 923,768 km² (UNDP Nigeria, 2004). The land mass is 910,768 km² while the difference of 13,000 km² is covered by water. The longest distance from East to West is about 767 kilometers, and 1,605 kilometers from the humid Atlantic coastline of West Africa to the semi-arid southern fringes of the Sahara Desert. The country is bounded on the West by the Republic of Benin; on the East by the Republic of Cameroon; on the North by Niger and Chad Republics while the South is bordered by the Gulf of Guinea with a winding coastline that measures a total of 843 kilometers in length (Adalemo et. al. 1993). It has a continental shelf of 200 meters depth, an exclusive economic zone (EEZ) of 200 nautical miles and territorial sea of 12 nautical miles.

The coast of Nigeria is a belt of mangrove swamps traversed by a network of creeks and rivers and the great Niger Delta. Beyond this lie successive belts of tropical rain forests that break into more open woodlands with hilly ranges and the undulating plateau with hills of granite and sandstone, rising from 609.6 meters on the average to 1,828.8 meters eastwards. Midway north of the country the vegetation is grassland interspersed with trees and shrubs which finally terminate in the Sahel Savannah region of the semi-arid northeast.

The River Niger, Africa's third longest river, rises from the mountains to the east of Sierra Leone and flows for the first two thirds of its length outside Nigeria before entering the country from the Northwest and runs 1,175 kilometers to the Gulf of Guinea. At Lokoja, it receives the Benue River (796 km) - which rises from the Republic of Cameroon and continues to the Gulf. Tributaries to the Niger River include Sokoto River (627 km), Kaduna River (547 km) and Anambra River (209 km) while River Benue receives Katsina-Ala River (346 km) and Gongola River (531 km) (FBS 2006). The second great drainage system runs from the central plateau into Yobe River and eventually empties into Lake Chad. Other important river systems include the Benue River, Escravos River, Sambreiro River, Bonny River, Cross River, Imo River, Ogun River, Oshun River, Mbo River, Zamfara River, and Yelwa River. Seven distinct physiographic regions have been recognized in Nigeria according to Akintola (1982). These are the:

- Creeks and Lagoons
- Niger Delta
- Coastal Plains
- Eastern Highlands
- Inselberg Landscapes

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- River Basin Troughs
- Chad Basin

The creeks and lagoons provide an overwhelming aquatic environment with tidal movements, east-west trending lagoons, sand bars, mangrove swamps and moist lowland rain forests. The Niger Delta, consisting of an impressive landform, covers an area of some 10,000 sq. km, while the complex depositional features mark the end of a long journey by the Niger River from the Fouta Djallon Plateau to the Atlantic Ocean. The lower reaches of the delta consists of tidal creeks, mangrove and freshwater swamps. A few north-south trending islands of red earth, created through the deposition of vast quantities of eroded material carried southward by the Niger and Benue rivers and covered with rainforest, form the only real dry land. The coastal plains consist of gently undulating terrains both east and west of the Niger River basin, with an average altitude of 150 meters above sea level with northward increasing elevations while the eastern highlands represent a complex of crystalline hills, mountains and plateaus rising from the eastern coastal plains and southwards from the Benue River basin attaining elevations of 2000 meters or more. The upland border region is a westward extension of the Cameroon massif in the Republic of Cameroon which occupies the eastern boundary of Nigeria. The inselberg landscape is a visually striking landform characterized by bare rock hill formation of various shapes and sizes occurring in isolation or in groups, rising abruptly from a surrounding plane surface to heights ranging from 50 meters to 300 meters above sea level. The river basin troughs, occupied by the Niger and Benue rivers and their tributaries have been created by structural faults in the *Basement Complex*. The upper reaches of the troughs, where the rivers flow over Basement Complex rocks, there are rapids and falls whereas the middle reaches of the rivers are characterized by extensive flood plains with braided stream channels and alluvial swamps. The Chad Basin, located at the northeastern corner of the country contains the Lake Chad, a shallow freshwater lake with swamps and marshes which descends from 300 meters to 240 meters above sea level, fluctuating in area depending on the season of the year (Akintola 1982).

Nigeria is blessed with favourable and varied climatic conditions, which reflect significantly on the vegetation, health indices and occupation of the rural dwellers. The climate is equatorial and semi-equatorial in nature, characterized by high humidity and substantial rainfall. There are two pronounced seasons - the wet and dry seasons, associated with the interplay of two contrasting air masses: dry continental (Sahara) air and humid maritime (Atlantic) air. The wet season lasts from April to October, while the dry season lasts from November through March. In November, the Inter-tropical discontinuity (ITD) is located over the southern part of the country with most of Nigeria experiencing dry north-easterly winds which brings the hazy harmattan condition, while in April it advances north, with moist south-westerly Monsoon bringing welcome rains needed to boost agriculture and facilitate the flow of nutrient debris into rivers, lakes and marine ecosystems. Mean annual rainfall ranges from under 800 mm in the northern extreme of the country to more than 2800 mm in the deltaic south.

The extreme northeastern part of the country is characterized by the Sahel savanna, very short grasses of not more than 1 meter in height interspersed with sand dunes. The Lake Chad basin, with its seasonally flooded undulating plain, falls within this belt, supporting a few tall trees. The drainage system of rivers and streams into the Lake Chad basin has favoured irrigation, without which cultivation would be virtually impossible. The Sahel savanna is followed by the short grass and woodland of the Sudan savanna, together constituting a third of the total landscape of the country. The Jos Plateau which is one of the highest points in Nigeria

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is in this zone and its vegetation depicts grassland at the top and base of the Plateau; while the windward side of the slope, favoured by moisture laden wind, is covered by forest vegetation (Akintola 1982).

The Guinea or tall grass savanna takes up a further third of the country with a mix of forest, savanna and grassland marking its border and the onset of forested lower third of the country. The trees, which are taller and bigger in this area than in the northern part of the Guinea savanna, are easily exploited due to accessibility over the grassland terrain. The term, derived savanna is given to its northern portion. The derived savanna today marks the transition between the two broad groups of vegetation types in Nigeria – the forest in the south and the true savanna in the north. The Guinea savanna with its typical short trees and high grass savanna is the most luxuriant of the savanna vegetation of Nigeria.

The lower third of the country is characterised by secondary forests interspersed with moist evergreen and semi-evergreen forests running through the mangrove and swamps of the Niger delta region, terminating at the coast which is made up of strand (beach/coastal) vegetation, thicket, and forest. The mangrove zone has been estimated to cover between 10,000 and 35,000 square kilometers, one-tenth of the total forest and wooded area of 31.6 million hectares in the Nigerian rain forest (Ibianga 1985; Spalding 1997). Species of mangrove identified in Nigeria are: (i) *Rhizophora racemosa*, (ii) *Rhizophora mangle*, (iii) *Rhizophora harrisonii*, (iv) *Avicennia africana*, and (v) *Laguncularia racemosa*. These populate the coastal fringes of Nigeria and the Niger Delta, but with the high rate of pollution, especially in the Niger Delta there has been rapid succession of the mangrove species by other pollution-tolerant plant species such as the monotypic Nipa palm (*Nypa fruticans*) (Akintola 1982).

2.1.2 Demography

Nigeria, with a population of over 140 million, is the most populous country in Africa (FBS 2006). Its population density is 154 people per km² and it accounts for approximately 25 percent of West Africa's people and 7 percent of the continent's population. The annual population growth rate of the country is 2.2 percent (UNFPA 2007). The most numerous ethnic group in the northern two-thirds of the country is the Hausa-Fulani, the overwhelming majority of whom are Muslims. Other major ethnic groups in the north are the Nupe, Tiv and Kanuri with several other lesser groups interspersed among them. The Yoruba people populate the southwest, with over half being Christian, about a quarter Muslim, and the remainder following mostly traditional beliefs. The predominantly Christian Igbo are the largest ethnic group in the southeast and the most ubiquitous group, as they are found in significant numbers in virtually all parts of the country, the west coast of the continent, and indeed in most parts of the world. The Ibibio, Ijaw, Efik, Edo, Itsekiri, Kalabari, Ishan and Urhobo communities constitute most of the population of the South-South. Persons of different linguistic backgrounds most commonly communicate in *pidgin* English, although knowledge of two or more Nigerian languages is widespread. However, Hausa, Yoruba and Igbo are the most widely used Nigerian languages and are designated official languages beside the English language even though minority groups numbering over 29 are interspersed among the major segments, with distinctive linguistic identities (Otitte 1990).

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Figure 2.1: Map of Nigeria showing the 35 States, Abuja and Akwa Ibom State, the project area



Nigeria is divided into 36 administrative entities (States), which are largely predicated on ethno-cultural boundaries though there are instances of cross-border cultural and linguistic affiliations. There is also a Federal Capital Territory, Abuja, which is accorded the status of a state. Figure 1 shows the 36 states including the study area and Abuja. Urban population is estimated to be 36.3% with the rest (63.7%) being rural dwellers, of which a significant proportion of those living around the coastline and inland waters are engaged in fishing. Interplay of climate, vegetation, culture and relief determine the vocation of rural folks while majority of city dwellers are engaged in commercial activities.

Table 2.1: Vital demographic indicators for Nigeria

Demographic Indicators	UNFPA (2009)
Population growth rate	2.1%
Birth rate	40.16 births/ 1000 population
Death rate	13.72 deaths/ 1000 population
Infant mortality rate	108 deaths/ 1000 live birth
Total fertility rate	5.1
Life expectancy at birth:	
(a) total population	48.2 years
(b) male	47.6 years
(c) female	48.7 years

Source: UNFPA 2009

Nigeria's population dynamics largely reflect some improvement in health and nutritional status of the population. Decrease in death rate and increase in birth rate should be a positive

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indicator of the population growth trend even though the male and female life expectancy rating is 48.2. Table 2.1 shows its vital demographic indicators.

2.1.3 Health and HIV/AIDS policy for Nigeria

The direct and indirect effect of tropical climate on the health, energy, and work efficiency of the rural Nigerian deserves mention as health hazards related to the climate are reflected in morbidity and mortality rates (FBS 2006). The manifestation of climatic influences shows in diseases such as tuberculosis, tetanus, measles, pneumonia, diarrhea, malaria which continue to be widespread, with rural populations highly vulnerable to their attack (Table 2.2).

Table 2.2: Deaths from major diseases in 2005

Major Disease	Death Rates (per million)
Tuberculosis	200
Tetanus	240
Measles	550
Pneumonia	700
Diarrhea	1250
Malaria	2400

Source: Federal Bureau of Statistics (2006)

Nigeria also has a significant prevalence of other diseases like typhoid, hepatitis B and HIV/AIDS and the impact of these diseases on the economy is likely to be more pronounced over time as the population increases. Since recording her first case of AIDS in 1986 Nigeria's HIV prevalence rate increased steadily from 1.8 percent in 1991 to 5.8 percent in 2001 but with a gradual decline to 3.1 percent in 2009. Although the prevalence rate appears low, Nigeria ranks third in terms of the actual number of people infected with HIV after India and South Africa (FMOH 2007; UNAIDS 2007). In 2005, the overall HIV prevalence among young women aged 15-24 years was 4.3 percent, while the highest prevalence of 4.9 percent was recorded among the 20-29 age groups. The drivers of the epidemic have been evidently linked to poverty, negative peer influence, poor access to health services and poor health seeking behaviour of most Nigerians. It is also linked to the poor state of the health facilities in the country. The existence of some religious and socio-cultural practices have been perceived to also contribute significantly to this rise particularly those that reduce the status of women in the society. Key health indicators over the years show that the mean ideal number of children per woman, the infant mortality and the maternal mortality rates are higher in the rural than the urban areas while the median age at first marriage, number of women currently using contraceptives and the percentage of women with live births who attended ante-natal clinics are much lower in the rural areas (FBS 2006).

Also, in spite of the oil wealth of the country, a substantial proportion of the population now finds it increasingly difficult to feed well. The average caloric intake of most Nigerians is said to be below the level suitable for good health, growth and productive activities. The basic causative factor is the widening gap between population growth and food supply and the

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situation has been made worse by the deteriorating health care delivery facilities and system, which has contributed to such diseases as tuberculosis, schistosomiasis, typhoid, malaria and diarrhea being still very rampant in the country. There is however an on-going process by government to significantly improve on basic healthcare for its citizens. Currently, every Local Government Area in the country has a functional Primary Health Centre, equipped to effectively carry out immunization against the six killer childhood diseases namely, poliomyelitis, cholera, chicken pox, measles, diphtheria and whooping cough. The government is also committing to the training of health personnel and the implementation of National Drug List as well as collaborating with international organizations such as UNICEF and WHO, to extend the benefits of health care to all. The Oral Rehydration Therapy (ORT), Expanded Programme on Immunization (EPI), family planning, rural water supply and sanitation, as well as, the campaign against the spread of AIDS are well articulated and strongly supported by government.

2.1.4 Education

Literacy level in Nigeria is disproportionately distributed based on different variables; the north and south, rural and urban, as well as male and female. A little over 57.1 percent of the population is literate made up of 67.3 percent of the male and 49.6 percent of the female population (FBS 2006). Formal education was primarily introduced into Nigeria by religious groups. Whereas the Portuguese Roman Catholic Missionaries introduced the country to western education in the early 15th century, other denominations such as the Church Missionary Society (CMS); the United Presbyterian Church of Scotland, the Southern Baptist Convention of the United States of America, and the Roman Catholic Church (RCM) came with theirs between 1842 and 1895. However, traditional and indigenous educational systems in Africa generally, and in Nigeria in particular predates western education.

In view of the high level of illiteracy especially in the rural areas, the government set up an Adult and Non-formal Education Commission for Mass Literacy in 1991 with the aim of achieving basic education for all. Also, consistent increase in the number of educational institutions in the country has been recorded at all levels over the years with commensurate turnout of graduates from such institutions. As at 2005, there were over 60,226 primary schools with a total enrolment of over 22 million, 10,830 secondary schools with an enrolment of more than 6 million, and 49 polytechnics with an enrolment of over 182,000 in Nigeria (Table 2.3). There are also 51 Colleges of Education and about 75 universities, and the combined graduate output of Nigerian Universities in 2005 alone from all disciplines was 39,506 made up of 63.7 percent male and 36.3 percent female.

Table 2.3: Summary of pre-university educational statistics

Institution	Number of schools	Total Enrolment	Male Enrolment	Female Enrolment
Primary School	60,226	22,099,553	12,182,055	9,917,498
Secondary School	10,830	6,255,522	3,459,007	2,796,515
Polytechnic	49	182,338	110,532	71,806

Source: Federal Bureau of Statistics 2006

2.1.5 Socio-economic conditions

Socio-economic indices provided by the country's Bureau of Statistics indicate a correlation between per capita income and literacy level, gender, as well as location (FBS 2006). The higher the educational status of the Nigerian the greater the income earned, the higher the mean household expenditure and the greater the access to amenities. There is also a direct relationship between occupational status and gender; the male population has a higher percentage of people with one occupation or the other than the female (AKS 2005). The environment in which the average Nigerian lives also plays a major role in the level of income earned by the person.

During the colonial period before 1960, the economy was dominated by export and commercial activities and there was an absence of a viable industrial sector. After independence, agriculture continued as the mainstay of the economy and contributed about 65 per cent to the gross domestic product (GDP) and represented almost 70 per cent of total exports. It provided the needed foreign exchange utilised in importing raw materials and capital goods, and peasant farmers produced enough to feed the entire population. There was enough revenue for use by the government to develop the basic infrastructures needed for long-term development. The main thrust of the economic policy was to maximise the benefits of export-led development strategy. Also, with the setup of the Import Substitution and Industrialization (ISI) Strategy Commission various consumer items, which were hitherto imported, were produced domestically and protective measures like tariffs and quotas were put in place to ensure that the domestic industries were allowed to grow. In the short-run, jobs were created but because the industries were to some extent unnecessarily over-protected by government, the finished products were less competitive when compared with their foreign counterparts.

Between 1971 and 1977 the share of agriculture to GDP declined from forty eight percent to almost 21 percent and agricultural exports as a percentage of total exports declined from 21 percent to about six percent. With the discovery of crude oil in commercial quantity in the middle sixties, the Nigerian economy has depended on oil, with oil revenue representing almost ninety percent of foreign exchange earnings and about eighty five percent of total exports, thus affecting the agricultural sector negatively. Rural-urban migration increased as people attempted to benefit from the oil windfall. Agricultural produce for exports declined, while food production for local consumption also became a problem. By 1974, the economy became a net importer of basic food and prices of foodstuff remained quite high. The growth rate of GDP was quite high and government expenditures fuelled the inflation rate but despite the oil boom, the private sector was still weak as the existing macroeconomic policies continued to encourage consumption rather than production.

However, by 1976, declining oil revenues, disequilibrium in the balance of payments, growing unemployment, increasing rates of inflation, and political instability confirmed that demand-induced policies were no longer effective. This forced Nigeria, which never had foreign exchange as a constraint, to borrow on the Euro-dollar market and as most of the industrialized countries of Europe and North America were in a depression, the depression that hit Nigeria from 1979, was more or less a client type, without underestimating the problems generated internally. Consequently the economy entered the recessionary phase and further stabilization measures were needed to reverse the gloomy situation. Between 1978 and 1986 it was clear that the economy was suffering from stagflation. The problems were so severe that it called for a comprehensive economic reform package, the Stabilization and Structural

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Adjustment Programme (SAP), which was set in motion in 1986, to minimize dependence on imports, enhance the non-oil export base and bring the economy back on the path of steady and balanced growth. The programme apparently intensified speculative and trading activities rather than production and gave rise to the proliferation of merchant banks, finance houses, deregulation of interest rates, privatization of the economy and the industrial policy which did not bring in the needed direct foreign investment. After six years of structural adjustment, the private sector development had not increased production, employment and price stability. The share of manufacturing in GDP was still low, while capacity utilization was a little above 30 per cent. Essentially, the performance of the Nigerian private sector had vitiated the major assumption that under-laid an IMF adjustment programme to the effect that the private sector had the capacity to respond to supply-side incentives. The public utilities mistook privatization and commercialization to mean increased prices without recourse to efficiency and productivity. The unjustifiable price hikes (sometimes in the range of 500-2000%) compounded problems for the industrial sector and the provision of social services. The increased prices paid by consumers further reduced their already declining real wage.

The present economic reform programme is still having serious problems in terms of conceptualization and implementation and Nigeria is now an economy where real wages are not enough to meet basic requirements, social services have deteriorated at an alarming rate, and the real sector is again not linked to the so-called boom in financial sector. Nonetheless, given the country's potential, commitment of the political and leadership class and appropriate policy mix, the economy may in the near future experience meaningful growth and development which can guarantee high standard of living for majority of its citizens.

2.1.6 Politics and government

With the abolition of slave trade in 1807, and of slavery in 1833, the British not only shifted their attention to legitimate trade, but their government made itself the world policeman to ensure that other nations did like them and abandoned slave trade. It was in the course of discharging this self-imposed responsibility that the British saw the strategic importance of Lagos, got involved in the internal affairs of Lagos, and ceded Lagos to the British Crown in 1861. The trade rivalries between the French and the British led to the Berlin Conference of 1885 and 1886 which was held to avert wars. Here areas of European influence in Africa were allocated to the contending imperialists. The area now known as Nigeria was claimed by, and allotted to the British. Frederick Lugard, was the first High Commissioner of the Protectorate of Northern Nigeria from 1900. The Royal Niger Company, which employed him, was granted a Royal Charter in 1886 to monopolize trade in, and control what was known then as the Protectorate of Northern Nigeria. The Oil Rivers Protectorate was proclaimed by the British in 1885, given a 'Government' the same year, and renamed Niger Coast Protectorate under 'treaties' with different coastal potentates. Thus as at January 1, 1900 Nigeria was separately controlled by Britain as follows:

- (a) The Lagos Colony and Hinterland (Protectorate), with Lagos as capital – controlled from the colonial office in London
- (b) The Niger Coast Protectorate, with Calabar as capital – responsible to the British foreign office in London
- (c) Northern Nigeria Protectorate, with Lokoja as capital – controlled from the colonial office in London.

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In 1906 the Lagos Colony and Hinterland (Protectorate) was merged with the Niger Coast Protectorate to become the Protectorate of Southern Nigeria with Lagos as the Capital, and responsible to the Colonial Office in London. Thus, with the Protectorate of Northern Nigeria already in place, the two resulting Protectorates came under the control of the Colonial Office, but as two distinct and separate territories. They were in fact described as two countries in the Amalgamation Proclamation Instrument of 1914 and until 1946, both territories were governed separately though by one Governor. Later the country was crafted into three regions:

1. The Eastern Region - with its capital at Enugu
2. Western Region – with its capital at Ibadan, and
3. Northern Region – with capital at Kaduna

On the 1st of October 1960, subsequent to agitations for self-rule amidst defiance by various groups, the country was granted independence from British rule, quickly followed by the creation of the Mid-Western Region out of the Western Region. Each region had its legislative assembly or parliament and regional head referred to as Premier who reported to a Prime Minister at the national level. Dr. Nnamdi Azikiwe was appointed the Head of Government.

A secession attempt by the Eastern Region under the name of Biafra in 1966 resulted in the outbreak of the civil war between 1967 and 1970, marked by heavy human and infrastructural losses. It brought the advent of military rule in Nigeria which lasted from 1966 to 1979 when civilian rule was restored. The army regained power between 1983 and 1999 through a coup d'état, with the attendant collapse of civil rule, law and order, and human and infrastructural development efforts, despite the large inflow of revenue from the sale of crude oil. Further attempts at destabilizing the country resulted in their fragmentation of the erstwhile regions into a 12-State structure, each with its own administrative head and organs of government. The 12 states have currently metamorphosed into a 36-state structure, with a separate federal capital territory. In preparation for civilian rule, the presidential system of governance was introduced and a tripartite structure of government, comprising the executive, the legislature and the judiciary was adopted for the country and all the states. A new constitution for the country was drafted and ratified by the military government for use by the succeeding civilian governments. This has accounted for the inconsistencies, limitations and contradictions identified in the document, which has informed the constitution amendment exercise currently going on in the country. Civil rule was eventually restored in 1999 and has fortunately been maintained to-date. The Federal legislature is bicameral, having two units of legislature, the Senate and House of Representatives. The government institutions under the presidential system and the three tiers system of government in practice (Federal, State and Local Governments) are shown in Table 2.4

The President is the Head of State, Chief Executive of the Federation and the Commander-in-Chief of the Armed Forces. He is also the Head of the Presidency, and together with his Ministers, forms the Federal Executive Council which initiates government policies and programmes and ensures that they are implemented after being passed into law by the legislature. The National Assembly is charged with the sole responsibility of making laws for the governance of the country. The judiciary is responsible for the interpretation of the laws as provided for in the constitution, which also guarantees its independence.

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Table 2.4: Government institutions under Nigeria’s presidential system

	Federal Government	State Governmente	Local Government
Executive	President	Governor	Chairman
Legislature	(i) Senate (ii) House of Representatives	House of Assembly	Council
Judiciary	Federal High Courts Supreme Courts / Sharia Appeal Courts.	State Courts, Customary Courts and Sharia Courts.	Magistrate Courts

Source: The Nigerian Constitution, 1999

2.1.7 Cultural features

Nigeria is officially a secular state but records a significant presence of distinct religious groups. Muslims represent 50 percent of the population while Christians make up 40 percent. The rest are Atheist, Neo-religionists, Baha’i Faith, Buddhists, and Animists and many people combine elements of Christianity or Islam with elements of indigenous faiths. The Christian denominations include the Roman Catholic, Anglican, Baptist, Methodist, Presbyterian and a rapidly growing number of Evangelical and Pentecostal Christians. The majority of Nigerian Christians is Protestant, but Roman Catholicism is the largest single denomination (FBS 2006).

The culture of the Nigerian people trends along linguistic lines though frequent overlaps over broad spatial and religious inclinations abound. In dress mode, the characteristic flowing apparels of North Africans apparently tending to their Arabian lineage influence the male inhabitants of north and central Nigeria. This is in contrast with the predominantly loose top referred to as “jumper” and trouser, occasionally replaced with caftan and matching cap worn in the southern parts. However, dress mode in some parts of southwestern Nigeria, with a significant Islamic presence tends towards that of the Moslem north. It is worthy of note that a peculiar dress code comprising of wrapper and long-sleeve top with a bowler hat and walking stick characterizes the ceremonial dressing of male aboriginal groups in the Niger Delta. The use of bowler hat and walking stick is not unconnected to early contact with white settlers who arrived the region in the 15th century. The female folks of the northern region traditionally adorn flowing garbs with veil/scarf covering the face/head respectively, in line with Islamic dress code. This mode applies to married or betrothed women, while the unmarried ones are simply dressed in a loose top referred to as “buba” with a single wrapper around the waist and a matching scarf on the head. This female dress mode permeates the entire northern and western regions of the country. In the eastern and Niger Delta regions, the traditional formal dress of the female folks is an elaborately designed blouse and two-piece wrapper with headgear. At other times some, especially those in the young and middle age brackets wear gowns. Although the influence of early missionaries appear to have petered away in the 16th century, they left some permanent marks on the dress mode of Itsekiri Chiefs in the Niger Delta who still adorn themselves in the manner of a Roman Catholic Priest, and add coral beads as well as other ornaments (Macmillan 2007; Abiola 1978).

Traditional institutions in Nigeria recognize the importance of traditional rulers who run baseline administration at the village and clan levels, thereby complementing institutional administrative structures of government. Various linguistic groups refer to their traditional

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rulers by various titles in line with the culture and dialect of the people. Hausa/Fulani of northern Nigeria refer to their traditional heads as 'Emirs' while their counterparts of Yoruba speaking western region are 'Obas'. On the eastern parts, descendants of the Igbo race title their traditional rulers as 'Eze'. There are however many other ethnic groups with concomitant distinctive titles for traditional rulers of such groups. For instance, in the study area the traditional head is referred to as the 'Obong', while the titles of 'Olu' and 'Amayanobo' are headship identities in other parts of the Niger Delta. There are minor intrinsic variants based on dialectal differences, usually to express unique cultural lineage or ranking in traditional social order. In most of Nigeria, and especially in the Niger Delta the chieftaincy institution is hereditary and patriarchal. Titles are also awarded to prominent men and women in recognition of their contributions to society (Abiola 1978).

2.1.8 Gender relations in a historical perspective

Literature on Nigeria's national development is relatively silent on the contribution of women. However, recently attention is being focused on women and their role in development, not only in Nigeria but all over Africa (Ogunsheye et al 1982). At the International level, the year 1975 (the first International women's year) was a period of ferment in ideas about the status of women. Thereafter, the awareness spread to many parts of the world. In Nigeria, though the awareness about the role of women in development gained momentum in the latter half of the 1980s, the role of Nigerian women in development has not been sufficiently emphasized and documented (Okome 2001). In highlighting the Nigerian experience, the pre-colonial, colonial and the post colonial eras will be briefly looked at.

During the pre-colonial era, the role of Nigerian women in development revolved mainly around their efforts in different sectors towards maintaining the kin groups. Pre-colonial Nigerian economy was basically at subsistence level, and women participated effectively in this economic pattern. Apart from being mothers and wives, taking charge of the domestic sector, women contributed substantially to the production and distribution of goods and services (Okome 2000 and Akande 2003). In the agricultural sector, the women farmed alongside their husbands and children. They also participated in local and long distance trade in different parts of Nigeria and were fully involved in the procurement and sales of various food items and related commodities. Women in pre-colonial Nigeria were fully involved in food processing for example; fish drying and *garri* processing especially in the coastal areas of the Niger Delta, salt production, weaving and pottery making especially in the East and the West. In Northern Nigeria, even the women in purdah were involved in food processing and also traded, with the aid of their children (Husaini 1992; VerEecke 1995). Most often these supplied the means of subsistence for the entire household. Women also extensively provided health care and spiritual services as most traditional religions featured immortal females as goddesses; most goddesses in Nigeria were portrayed as river goddesses, fertility goddesses and earthly goddesses. In the Niger Delta area for instance, women provided music, songs and dances required during religious activities. Women also officiated as priestesses, media, diviners, healers, traditional birth attendants and often times as custodians of sanctuaries for gods and goddesses. This is a reflection of the roles and power Nigerian women wielded during the pre-colonial era.

The legal status of Nigerian women in pre-colonial times needs highlighting. Under the pre-colonial customary laws in most Nigerian societies, women were considered free adults. At the same time certain initiations were imposed on them in order to be subordinated to a final

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male authority. However, women had independent access to income. Since land was usually owned communally, whoever worked or tilled the land, whether male or female, derived the benefits; nevertheless, women in many societies could not inherit land.

Education in pre-colonial times was functional, as such enabled women to obtain a skill in order to earn a living. Ogunsheye et al. (1988) observed that a woman who was without a craft or trade, or who was totally dependent on her husband, was not only rare, but was regarded with contempt.

In the area of politics, women in pre-colonial Nigeria were an integral part of the political set of their communities and also often carried out separate but complementary political functions from the men. In pre-colonial Borno, for instance, women played active part in the administration of the state. They held very important offices in the royal family, for example the office of the *Megira* (the queen mother) and the office of the *Gumsu*, the first wife of the Mai or King. Women also played a very significant role in the political history of Ancient Zaria in Northern Nigeria, a modern city founded in the first half of the sixteenth century by Queen Bakwa Turuku, mother of Amina who later succeeded her as Queen. Queen Amina was a great warrior and was very powerful. She built a high wall around Zaria in order to protect the city from external invasion and extended the boundaries of her territory beyond Bauchi. The people of Kano and Katsina also paid tribute to her and she turned Zaria into a very prominent commercial centre (Effah-Attoe 1992, 2002).

The story was not different in ancient Yoruba land. The Oba ruled with the assistance of eight titled ladies of the highest rank and referred to them as the ladies of the palace. The significant roles played by prominent women such as Moremi of Ife, Emotan of Benin and Omu Okwei of Ossimari in the pre-colonial history of Nigeria cannot be ignored. It is on record that Moremi and Emotan were great amazons who displayed tremendous bravery and strength in the politics of Ife and Benin respectively while Omu Okwei dominated the commercial scene of Ossomari in present day Delta State in the Niger Delta region (Effah-Attoe 2002). The Ibibio women's riot of 1926 that started at Ikot Abasi and spread through Annang land to Utu Etim Ekpo and Aba, regarding the abolition of stringent tax regimes succeeded in causing the abolition of the tax laws by the colonial masters.

The colonial economy was export oriented and it seriously undermined the prestige of the traditional occupations of Nigerian women. While it placed women at a great disadvantage, it enhanced the economic status of the British, Lebanese, Syrian and a few male Nigerian merchants. Many of the smaller markets, hitherto dominated by women, gradually disintegrated as a result of the emergence of the expatriate firms such as John Holt, United African Company (UAC) and Lever Brothers. Women were excluded from access to medium and large scale loans, which were vital in operating at the bulk purchase level of the colonial economy. In agriculture, the cash crops incentive, technology and innovations were restricted to men (Eleazu 1988). The reason for these developments stemmed from the colonial policies which tended to be biased and sexist. Generally, women felt very insecure under colonial economy and their roles were inferior and merely supportive.

The statute English law (deriving from Christianity) that was introduced into Nigeria by the British during the colonial era did not favour women; it contained a clause which stated that women were not permitted to inherit land. Although this was a norm in pre-colonial times, it was not seen as a major problem then, because land was communally owned and women could work on a piece of land and enjoy derivable benefits. However, the issue became a problem during the colonial era when there was increased quest for private ownership of land which became the basis of access to functional means of production. The fact that women do

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not inherit land has remained a serious problem and a great obstacle to the economic development of the Nigerian womenfolk (Effah-Attoe 2002).

During the colonial period education was functional. The curricula emphasized religious instruction, agriculture for boys and domestic science for girls. Technology and science-based education was not encouraged. Generally, the curricula for girls enabled them to become good housewives, rather than income earners.

With regard to politics, colonialism affected Nigerian women adversely as women were alienated politically and were denied their franchise. The colonial legal system and some of its accompanying bottlenecks as they affected women were very obnoxious. For example, the colonial legal system did not regard women as free adults until the 1950s. The tax laws, the laws of matrimony and statutory divorce did not also favour women in many respects. Very few women were given political appointments. For instance, it was only during the 1950's that three women were appointed into an arm of Parliament - The House of Chiefs, essentially pursuant to their active roles in the mobilization of women groups. Describing the political undermining of Nigerian women during the colonial period, Bolanle Awe (1992) and Iweriebor (1988) noted that women were violently disrupted by the colonial experience and were the hardest hit because, due to the Western perceptions of female inferiority, the colonial administrators relegated women to the background of their governments. In the 1950s only women in Southern Nigeria were given the franchise. Moreover, the women wings of political parties possessed very little functional relevance as market women were used only in pursuing the interests of the male politicians.

The introduction and subsequent spread of Christianity during the pre-colonial and colonial eras greatly influenced the status of women in the country. The Christian doctrine and the bible placed women in a subordinate position. This position of women in Christianity is properly portrayed in 1st Corinthians Chapter 11, verse 3 which states;

*“Now I want you to realize that the
head of everyman is Christ, and the
head of the woman, is man and
head of Christ is God.”*

The Holy Bible, KJV.

In the post-colonial days gender inequity and women's subordination, a phenomenon that is widespread across the continent and indeed, internationally continue to pervade the lives of Nigerian women. This takes the form of pervasive beliefs that women are (men's) 'property', and by extension, minors, whose adult status is mediated via men, primarily the father or husband, but also uncle, brother and so on. In addition, there is the widespread denial of education, land and property rights, and access to credit. In defiance of these oppressions, however, Nigerian women have continued to organize against a range of oppressive and inhumane practices that do violence to women's bodily integrity and their humanity - such as the battery of women, widowhood rites, child marriage and female genital mutilation - each justified in differing ways by recourse to a complex that variously combines 'culture, tradition and religion' (Pereira 2001; LACVAW 2001).

The only sector in which the Nigerian women began to play very active part in the nation's affairs was in traditional agriculture even though their efforts have not been recognised. This was as a result of the large scale exodus of able bodied men to wage labour with the advent of the industrialization process. The Nigerian peasant women thus took over an

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increasing portion of the burden of food production, contributing between 50 percent and 70 percent of Nigeria's food requirements on borrowed and rented land (Iweriebor 1988).

The situation of women in the public sector in the post-colonial period reflects a grim picture, but a marked departure from its pre-colonial and colonial situation. Five years after independence, only 6.9 percent of the wage and salaried workforce were women (FML 1984). According to the Federal Civil Service manpower statistics, by 1970 women made up only 8.7 percent of the total number of established staff in the Federal civil service. In 1980, the percentage of women had risen up to 12.6 percent and similar patterns were maintained in the States' Civil Service. In 1979, women constituted 4.9 percent of the agricultural manpower in Nigeria, 1.4 percent of artisans and craftsmen, and 1.6 percent of professional / sub-professional group. It was only in the medical sector that women constituted 84.3 percent of dieticians and 80.2 percent of nurses (FML 1984). Successive post-independence governments have encouraged female education and expanded educational facilities for girls. Currently, the hard economic situation is affecting women's education in Nigeria. As a result of increasing cost of education, most parents especially in the rural areas prefer withdrawing their daughters from school for marriage or forced labour. In order to stem this tide, some state governments have passed edicts granting free education to girls up to certain levels and it is considered an offence to withdraw a female child from school before a stipulated age in some of these states.

The role of women in Nigeria's post-colonial politics has not increased sufficiently, as they are currently still not benefiting sufficiently from political patronage despite the massive support given to various political parties by their various organizations, market women movements and associations. In Northern Nigeria, women were denied the franchise even after attainment of independence whereas some of their counterparts in the South, where women already had the franchise, had already secured political positions by 1961. It was only in 1979 that voting rights returned to women in Northern Nigeria following the return to civilian rule.

Currently, a few women have secured seats in their respective Houses of Assembly having won elections in their respective constituencies. Moreover, provision has been made in party politics for a stipulated number of positions to be exclusively reserved for women. Even though the place of the Nigerian woman in the socio-political life of Nigeria has witnessed tremendous gains, the number of women in top jobs is still very insignificant, and much is still expected to be achieved to commensurate the great efforts of women like Funmilayo Ransome-Kuti and Margaret Ekpo, whose contributions to national development were initiated in the 1950's (Akande et al. 1990; Okome 2000; Effah-Attoe 2003).

The reasons for the observed gender inequality may not be far-fetched. Perhaps, the first and most serious reason is the large scale discrimination exhibited by Nigerian men in terms of voting and allotting political offices, which could emanate from sheer levity and bias against womanhood. Second, is the socio-cultural and religious nature of the different Nigerian societies, most of which often place women at the background. Third, is the lack of adequate education for women and absence of adequate records and information. Lack of adequate finance by women is considered a fourth factor contributing to the imbalance. Fifth is the effect of family responsibilities and child bearing process on women, while the sixth is the long gap that capitalism and materialism created between men and women during the long years of colonialism (Effah-Attoe 2003; Akande et al. 1990).

However, the future holds better prospect for the Nigerian women more than ever as some of the obstacles militating against women's development are already being removed. For example, in northern Nigeria, a quiet but significant social revolution is taking place among women and it may not be very long before education enters the corridors of the *purdah*. Even nomadic women and girls are now receiving education, which is invariably a source of

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political, social and economic power. On 13th June 1985, the Federal Government of Nigeria signed and ratified the United Nations Convention (1975) on the Elimination of all forms of Discrimination against Women (CEDAW) and subsequently began to initiate policies and programmes aimed at improving the lives of women.

2.1.9 Food production

Favourable climatic, vegetative and pedologic zonations as well as topographic conditions enable the potential for a wide array of agricultural produce in Nigeria. Diverse food crops and associated variants constitute the rich nutritional items cultivated in virtually all parts of the country. No region of Nigeria is devoid of enabling environment for more than one type of agricultural produce. Largely rain fed agriculture practiced in the country is enabled by the abundant rainfall characteristic of the region. Year round supply of animal protein from land and sea sources is also guaranteed. However, per capita food supply had fallen between 1998 and 2002, exposing vast sectors of the population to food insecurity and malnutrition. This is despite the fact that agricultural growth was recorded to be generally higher, at about 3 percent, in the 1990s than in the 1970s (FMARD 2005).

Nigeria's food crops may be grouped into the following broad categories: root crops, cereals, legumes, fruits, vegetables, spices, oils and forage crops. Animal protein sources also come all year round in sufficient quantities from fish, cattle (Zebu cow), goats, sheep, poultry, pigs and game animals.

Root crops comprising Yams (*Dioscorea alata*), Cassava (*Manihot esculenta*), Cocoyam (*Colacasia spp*), Irish Potato (*Solanum tuberosum*), and Sweet Potato (*Ipomoea batatas*), are freely grown mainly for their carbohydrate content and form common staple food in the lower two-thirds of the country. Cassava and yams, widely grown in the southern and central states have annual production figures in excess of 25 million tonnes and Nigeria is currently the highest producer of cassava in the world. Paddy rice (*Oryza sativa*), unarguably the world renowned staple grain, Maize (*Zea mays*), Millet (*Pennisetum spp*), Sorghum and Guinea corn (*Sorghum vulgare*) and the indigenous upland rice (*Oryza glaberrima*) are also grown. Fruits and vegetables produced in Nigeria include: Water melon (*Citrullus lanatus*), Oranges (*Citrus reticulata*), Coconut (*Coco nucifera*), Melon (*Cucumis melo*), Cucumber (*Cucumis sativus*), Tomato (*Lycopersicum sculentum*), Banana/ Plantain (*Musa paradisiaca*), Guava (*Psidium guayava*), Cocoa (*Theobroma cacao*), Onion (*Allium cepa*), Sugar cane (*Saccharum officinarum*), Pineapple (*Ananas comosus*) and Paw Paw (*Carica papaya*). Some of these are seasonal while many are perennial, ensuring steady supply of required vitamins and minerals (FMARD 2005).

Legumes especially Cow Peas (*Vigna sinensis*) and Groundnuts (*Arachis hypogaea*) are also extensively cultivated in the savannah zone of the country, notably the Sahel region. Oil Palm (*Elaeis guineensis*), Shea Tree (*Butyrospermum*), Coconut (*Cocos nucifera*) are good sources of oil. There is a preponderance of the oil palm tree throughout the southern rainforest region of the country. This is complimented by the presence of the coconut within the region and culminating in stretches of the variety on the beaches along the coastline.

Crops are complimented by a large variety of protein sources. Ample supply of protein from animal sources (fish, livestock and game animals) is guaranteed all year round. These comprise the Zebu cow (*Bos indicus*), often referred to as cattle, goats (*Capra hircus*) and sheep (*Ovis spp*), various species of fish, pigs (*Sus spp*), and birds (E.g. turkey (*Meleagris spp*), Guinea fowl (*Numida meleagris*) and domestic fowl (*Gallus gallus*). Game animals such

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as antelope (*Alcelaphus caama*) and hogs (*Hylochoerus spp*) also reflect significantly in food supply especially among rural dwellers. Poultry farming especially in the southern parts of the country ensures year-round supply of eggs and chicken through intensive rearing of the *Gallus gallus* in a regulated environment. Fish production in Nigeria trends towards the significant presence of water bodies within and around the country: the entire landscape is well drained by a web of rivers with only a few in the northern region experiencing low seasonal flow especially in the dry harmattan months but return to normal during the monsoon rains. Most rivers below the Sahel belt maintain their heavy perennial flow which accounts favourably for high fish yield.

2.1.10 Fish production

Nigeria's current annual fish production statistics is 509,201 metric tonnes, with about 49 percent of this quantity (251,257 tonnes) coming from aquaculture and freshwater sources (inland rivers, lakes and fish farms) (FMA 2005). The difference (257,944 tonnes) made up of marine and inshore/brackish water species are caught by a combination of commercial trawlers and small-time coastal fishermen, technically referred to as "Artisanal Inshore Fishermen" (Table 2.5). Artisanal Inshore Fishermen are small fishing units comprising either motorized fleets, ranging from 4-6 meters to 7-13 meters long, with out-board engines and approximate crew size of 6-7 fishermen, or paddle-propelled dug-out canoes usually 4-6 meters long, with crew size of 1, 2 or 3 persons. Commercial trawlers on the other hand, comprise two classes of motorized steel vessels ranging from inshore (coastal waters) fishing crafts measuring 9.91-12.5 meters long, through medium sized vessels 12-20 meters long, to deep-sea fishing fleets in excess of 25 meters. Artisanal fishermen with bigger vessels operate within coastal waters with mechanized boats while the smaller ones are in the brackish waters, lagoons, small and large rivers and lakes and the creeks.

Mechanization implies the simple addition of motive power to the otherwise unchanged indigenous canoe (Gurtner 1963). Efforts have been made over the years for increased utilization of motorized fishing crafts to reduce energy and time spent to and from fishing grounds as well as increasing actual fishing time/effort. International Agencies such as the Food and Agricultural Organization (FAO), International Fund for Agricultural Development (IFAD), the World Bank, as well as the Federal and State governments have been making concerted efforts towards increased efficiency and post harvest loss reduction in Nigeria's fishing industry. Mechanization of fishing translates into improved fishing methods, increased access to fishing grounds, reduction in spoilage, as well as increased fish landing and paddle propelled crafts remain more or less with subsistent fishermen and women. Commercial fishermen constrained by lack of resources to motorize their canoes also continue to operate with paddles, an unavoidable scenario in some traditional fishing communities. Nationally, fisheries contribute about 4.5 percent of the GDP and less than 0.5 percent of the country's export earning, almost all the exported products consisting of penaeid shrimps from industrial fisheries (FBS 2006). Only an insignificant fraction of the country's total domestic fish production is exported, and at present the proportion converted to fishmeal is negligible, most of the catch being for direct human consumption especially the artisanal fisheries landings. Over 40 percent of the animal protein consumed in Nigeria comes from fish (Olayide et al. 1972) and the Niger Delta contributes over 35 percent to the fish supply in the country.

Table 2.5: Nigeria fish production by sector (2001-2004)

SECTOR	METRIC TONNES			
	2001	2002	2003	2004
Freshwater:				
(a) Inland rivers and lakes	194,226	197,902	204,380	207,307
(b) Aquaculture	24,398	30,664	30,677	43,950
Sub-total	218,624	228,566	235,057	251,257
Marine:				
(a) Coastal & Brackish water	239,311	253,063	241,823	227,523
(b) Trawlers:				
(i) Fish	15,792	16,064	17,542	16,063
(ii) Shrimps	12,380	12,797	11,416	12,469
(iii) Eel	206	1,230	4,924	1,889
Sub-total	267,689	283,154	275,705	257,944
Total	486,313	511,728	510,762	509,201

Source: Federal Ministry of Agriculture and Rural Development, 2005

The fisheries sector in Nigeria

Although the contribution of the fisheries sector in terms of GDP, as compared to other economic sectors, has gradually declined during the last two decades due to overfishing and poaching by vessels from the international waters, its significant contribution to food security and economic wealth is still recognized by the government. Nigeria has now fully incorporated fisheries in its economic and social development plans and there is a very definite effort at developing the fish farming industry as a business (World Bank 2008).

The fisheries sector is unique when compared with other economic sectors, as it operates on limited resources. The steadily expanding population of Nigeria has created an increasing demand for fish for animal protein, because of custom, preference or disease of livestock (FBS 2006). Together with the rising demand for quality fish and fishery products from developed markets outside the sub-region, facilitated by trade liberalization, and the increase in efficiency of fishing boats and gear, the exploitation of fishery resources in the sub-region both in inland waters and coastal waters has increased greatly in intensity. On the other hand, the rapid development of capture fisheries and aquaculture in recent years, without wise and effective management, has led to a steady decline in the abundance of fishery resources in many fishing grounds in freshwater and marine coastal areas as well as in the degradation of fish habitat and coastal environment. The problems affecting the sector have also been aggravated by the rapid and uncontrolled development of other economic sectors, e.g. oil and gas, industries, agriculture, irrigation, transportation, etc., some of which have had a negative impact on fishery resources and their habitat. The problems are more pronounced in inland and coastal waters. It is now generally recognized that such a pattern of fishery resources use and uncontrolled development will not lead to the sustainability of the resources and fisheries. If

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the situation continues to prevail without any remedies, it will have a severe impact on food security in Nigeria in the future and, in particular, on the less fortunate groups therein. Hopefully, in the near future, Nigeria will endeavor to address relevant issues confronting the fisheries sector with a view to ensuring its sustainable contribution to food security and economic wealth.

Women in fishing communities in Nigeria

Women in fishing communities in Nigeria face the same problems as their counterparts in other rural communities but with some distinctions between those inland and their counterparts on the coast. They occupy a low social status in the communities and are engaged in multiple livelihood activities in a bid to sustain themselves and their families. They are into crop farming, fishing in the creeks, livestock rearing, petty trading, crafts, and most especially the processing and marketing of agricultural products, most especially fish and fishery products (Williams 1999; Alamu 1991, 1993; Verstralen and Isebor 1997; Adewale and Ikeola 2005). This is because with the increasing poverty profile of Nigeria, the burden of meeting the household livelihood needs is increasingly falling on the women. Maegher (1999) reported that with more economic pressure on the men, “there has been a tendency for men to transfer a growing share of the burden of the household needs unto their wives”. Married women are taking on more and more of the men’s responsibilities including the provision of food ingredients for the household, children’s needs, and education. Others have become *de facto* household heads due to the regular absence of their husbands at sea or “following the fish” to settle in different fishing settlements- depending on the seasonality and the type of fishery they are engaged in.

Different categories of women are found in fishing communities due to their peculiar nature. Apart from those involved directly in fish-related businesses such as trading in processed and fresh fish and the provision of equipment and credit, there are others who provide services such as food, drink and lodging to fishermen and other fisherfolk. The third group comprises young unmarried women in search of independent livelihoods who constitute the transactional sex workers trying to overcome economic and institutional barriers to building a livelihood (Béné et al. 2005). Many of these women depend on the lower level economic opportunities available in the fishing settlements in order to make a living. In this study however, only the first category of women is considered.

2.1.11 Social change and development

The Nigerian government, in its successive annual budgets has enunciated its policies to include orderly development of land, physical planning of all urban towns, provision of houses at affordable rates to the generality of the citizens, provision of a network of good roads, pipe borne water, electricity and communication system. The provision of social and economic infrastructure is aimed at encouraging private entrepreneurship and improving the living conditions of its citizens. This policy has translated to a network of roads traversing the country, and electrification network and water schemes in many areas even though most of the rural areas are yet to benefit. Self-help projects are however being undertaken by most rural communities before asking for government assistance. Government has provided incentives for entrepreneurship by private bodies, society groups and labour unions through the development of transport, power and other utilities in addition to financial inducements and subsidies in

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form of provision of land for development. In other cases, relaxation in registration and operational procedures, taxes and levies serve as a boost in government drive for social and economic development of its people.

Housing and water supply

Housing difficulties, particularly as they affect the low income groups have been complicated by rapid population growth, inflated real estate values, speculative activity, and influx of poor immigrants and lack of planning (Onibokun 1990). The problems are more acute in those cities and towns where administrative, commercial and industrial activities have long been established and have been growing at a very fast rate. Housing policies in Nigeria have not taken adequate account of more efficient and cost-saving alternative solutions to housing problems. Currently, government has highlighted key steps towards qualitative and quantitative housing development for its masses, including

- Operation of a two-tier Housing Finance System, whereby the Federal Mortgage bank of Nigeria (FMBN) has been restructured to operate as the country's apex mortgage institution with supervisory role over a network of Primary Mortgage Institutions.
- Machinery for monitoring and evaluating the course of policy implementation
- Provision of land at affordable price under the National Site and Services Programme
- Research into low-cost building materials carried out by the Federal Housing Authority (FHA) and the Nigeria Building and Road Research Institute (NBRI).
- Development of an Urban Development Bank (UDB) to cater for large scale development of housing and infrastructure within the country's major urban centres.

Only about 46 percent of the population has access to improved water supply and this proportion varies widely across the country. Distribution of improved sources of water is spatially biased in favour of the urban centres – a situation that was inherited from the colonial administration which attempted to use improved water supply as a means of controlling spread of certain diseases in urban areas. However, while many states have increased the supply of clean potable water for its citizens, some have encouraged drilling of water boreholes by rural communities as part of self-help projects. Philanthropic organizations have also sponsored many water projects in rural communities and many wealthy individuals drill boreholes for their private water needs. Associated health risks emanate from improper treatment of ground water or consumption of water from shallow wells and add to total costs.

Power

The first electricity generating plants in the country were thermal in nature. Coal from Enugu, in the southeastern part of the country, as well as imported diesel oil initially furnished the needed fuel and in the course of time, coal was replaced by petroleum products and modern dams as sources of electricity. By 1982, 50 per cent of the country's major power generating stations was fuelled by natural gas sourced from power plants located at Afam, Ijora, Ughelli and Calabar, all in the coastal region of the country. The commissioning of the Niger Dam Power Station at Kainji (the Kainji Dam) in 1969 represented a great milestone in the history of electricity generation in Nigeria, bringing hydro-electric power supply to many parts of the country. Other dams were constructed at Jebba and Shiroro to substantially increase hydro-electric power generating capacity of the country, and to meet the increasing demand for power

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arising from the rapid industrialization and urbanization processes. Electricity supply has however remained below its demand over the years, as many rural communities have been connected to the national grid.

Transport

Land transportation by rail and road, water transportation by canoe, boat and ship, and air transport are the main components of transport in Nigeria. Expansion of road network, to link up regions and local communities in the country has been an important feature of development in Nigeria. They range from earth roads, through single asphalted roads, to dual carriage highways which provide for easy movement of goods and persons across the country as well as trans-boundary movements. Nigeria's railways, which played an immense role in the country's socio-economic development in the past, opening up the hinterland and providing much needed impetus for foreign and domestic trade, is still in its rudimentary stage. The volume of water transport is also appreciating though with some fluctuations. Government efforts to industrialize and diversify its economy have necessitated expansion of sea-ports to accommodate increased flow of goods. Currently there are 22 airports in Nigeria, made up of 4 international airports and 18 others. There are also 11 sea ports, made up of 4 major ports and 7 others (Oyebanji 1993; Macmillan 2007). However, there is a need for better co-ordination among the various transport modes and an urgent need to infuse better management and technical expertise into the various transport organizations.

Telecommunication

Telecommunication development in Nigeria spans over five decades and had been relatively slow before the introduction of the mobile telephony in the country. In early February 1993 NITEL introduced the mobile telephone in addition to the 45,000 new telephone lines digital network in Lagos commissioned in December 1992 (Oyebanji 1993). By 2002, the number of telephone lines was 1.7 million and in 2003 it rose to 3million. In 2004, mobile telephone lines had increased to 9 million, further recording astronomical growth to 19 million in 2005 (Macmillan 2007). The number currently exceeds 50 million subscribers (FBS 2006).

Rural development

Nigeria's rural sector is conservatively estimated to be accountable for 70-75 per cent of the country's total population. This population lives in widely scattered settlements across the country, and engages predominantly in primary production activities such as agriculture, pastoralism, fishing/ hunting, wood cutting and gathering of food and other material resources from the natural environment. The rural sector therefore occupies an important place in Nigeria's national economy because it holds a large reservoir of material and human resources, the exploitation of which has played no small role in overall development (Baba, 1987). The sector provides a substantial proportion of the food needs of the country, as well as a wide variety of agro-based and raw mineral resources for industries. The rural population constitutes a human resource base which provides cheap labour for various sectors of the economy.

From colonial times, Nigerian rural resources, especially in the areas of agriculture, forestry, mineral and human labour gained immediate attention, and through the exploitation of these resources, the country's rural economy became substantially incorporated into the world

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economy for the first time. Cash cropping in particular, became a salient feature of the rural economy as small-holder farmers undertook appropriate changes of their production system in response to new market forces and incentives, including construction by the colonial administration of interregional transport infrastructure which stimulated cash cropping and the exploitation of other forms of rural resources (Eicher and Holm 1970).

During the 1975-1984 period Nigeria incorporated a Rural Development Policy into its National Development Plan with the aim of increasing rural productivity and income, diversifying rural economy and generally enhancing the quality of life in rural areas through the provision of basic social amenities such as health centres, pipe borne water, feeder roads and electricity, and hoping that the combined effect of these measures would help to narrow the disparities in living standards between the urban and rural population (FRN 1975).

This new policy direction was apparently informed by the re-conceptualization of development at various international fora in the 1970s where greater emphasis were placed on such welfare parameters (or basic needs) as balanced diet, good water supply, access to healthcare facilities, adequate educational facilities, shelter which make for comfortable living. Strategies and programmes set up for rural development at that time included the Agricultural Development Projects (ADP) and the River Basin Development Authorities (RBDAs). Each Basin authority was to initiate regional development programmes within its area of jurisdiction, with converging effects of better management of land and water resources, more food to meet national demands, more incomes and better standards of living for the affected rural populations. Between 1985 and now, other programmes implemented towards the transformation of the rural areas include the Directorate of Food, Roads and Rural Infrastructure (DFRRI), the National Agricultural Land Development Authority (NALDA), the National Directorate of Employment (NDE), rural electrification projects and the better life for rural women projects.

The new directions which the administration has given to grassroots politics of the day cannot be divorced from the general transformation process of the rural sector. The strengthening of the Local Governments, through increased and direct funding from the centre, and the new democratic political process that lays strong emphasis on grassroots participation are instruments which have already raised awareness about the general importance of the rural sector and reduced rural-urban drift.

2.2 The Niger Delta Region and Akwa Ibom State

2.2.1 Location and ecology

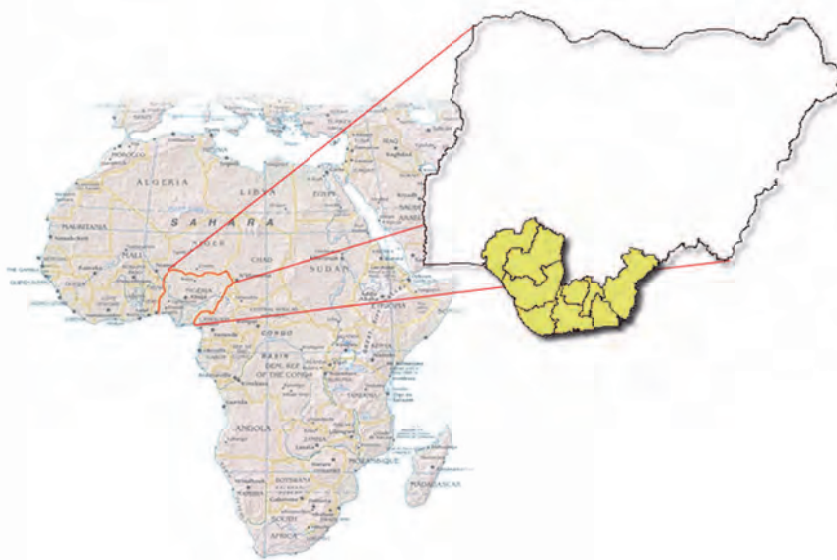
The Niger Delta region constitutes a significant proportion of southern Nigeria, comprising six of the thirty-six states of the country and politically delineated as the South-South. It lies within latitude 4.5° - 7.5° N and longitude 5° - 9.5° E and occupies a shoreline of about 580 km, 72.5 percent of the 853 national coastline, and a landmass of 84,616 km². Delta, Bayelsa, Rivers, Akwa Ibom, Cross River, and Edo States constitute the Niger Delta (Macmillan 2007).

The principal river systems comprise the Benin, Escravos, Forcados, Imo, Qua Iboe and Cross Rivers, and many outlets from distributaries of the River Niger, namely, the Ramos, Pennington, Brass, St. Nicholas, Santa Barbara, San Batholomeo, Sambreiro, Nun and New Calabar Rivers. It is noteworthy that Ibaka is located at the estuary of the Cross River and lies 120 km eastward of the labyrinth of the Niger Delta distributaries and creeks. The Niger delta,

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the second largest delta in the world after the Nile, spans about 16,340 kilometers square, 15 percent of which is permanently under water by upstream rivers, creeks and tidal waters. It is an arcuate-shaped basin rimmed by a chain of about twenty sandy barrier islands (Allen 1985). The Niger delta continental shelf is very wide, ranging from 75 km on the western boundary to 84km on the east, and relatively shallow, providing excellent near-shore fishing grounds.

Figure 2.2 Map showing Nigeria and the Niger Delta



Source: Macmillan 2007

The Cross River estuary is the largest along the Nigerian coastline and is banked further inland by elevated land reaching 20 to 30 meters high while the brackish water area covers up to 510 km². The sea bottom of the continental shelf is muddy due to silt deposition, while coral deposits are negligible, making it suitable for trawling. The 50 meter isobath which marks the geological transition from the pro-delta slope to the open continental shelf is approximately at the base of the thermocline and hence the approximate limit of occurrence of the croaker group of demersal fish resources available in significantly large quantities to artisanal fisheries of this region. Other important species available to artisanal fishermen include clupeids: *Bonga* (*Ethmalosa fimbriata*), shad (*Ilisha africana*) and herrings as well as bagrids or river catfish (*Chrysichthys nigrodigitatus*) (Moses 1990).

The coastline consists of surf-beaten beaches varying in width from 0.3-16km with a small tidal range usually about 1.6 meters high. The Qua Iboe and Imo Rivers, saddled between the Cross River estuary and the delta are two significant rivers west of the project site. The Cross River, with its source at Bambutos Mountain (2740meters above sea level) on the Cameroon Ridge, drains a nutritionally rich rainforest terrain. The foregoing highlights the importance of two key elements that interplay for the success of fishing in the region namely: (i) nutrient supply and (ii) breeding grounds. Marine fish species migrate inland along these rivers into marshes, shallow water and shelters for breeding and later return to deeper waters. The fries when hatched are surrounded by abundant nutrients on which they nurture before moving into deeper water. Nutrient from the rivers also empty into the continental shelf

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providing food for stocks in the open sea. In the coastal regions, the above parent materials, the alluvial deposits mostly of the Niger River origin as well as the fluvial-marine deposits along the coast give rise to the three main physiographic regions with different soil characteristics namely: the coastal plain, the river plain and the delta plain. Crude oil deposits in Nigeria are almost entirely found within this region.

The Niger Delta region is marked by more rainfall than other parts of the country; less defined seasons and generally less temperature fluctuations. It enjoys over 3,500 mm of rain with a double maximum (April-July and September-October). The high rainfall in this region causes much leaching in the soil supporting coconut, cashew nuts, oil palm, and similar plants. It receives the least sunshine hours in Nigeria: 1500 hours per annum with July being especially cloudy. Mean temperature and humidity ranges are 23°C-31°C and 80-95 percent respectively (NEST 1991).

The southern part of the region is a narrow band of swamp and beaches bordering the Atlantic Ocean. This narrow band accommodates pockets of typical dry land rain forest vegetation that supports subsistence crop farming. A much broader vegetation zone bordering the beaches inland are the mangrove swamps which are traversed by a network of winding creeks throwing the mangroves into discrete islands of vegetation. The mangrove swamp is noted for its high primary productivity, and as such provides feeding ground for adult fishes during high tide while the inner creeks serve as nursery grounds for post larval stages and some marine fin fish. The landmass adjoining the coastal lagoons and estuaries in Nigeria are also generally vegetated by the mangrove trees, resulting in inter-tidal mangrove swamps. The mangrove leaves fall and their deposition constitute an important source of energy to the estuarine ecosystem; making the microbial loop and the detritus food chain crucial to the trophic dynamics of the estuaries, and even the adjoining coastal waters by export of carbon from the estuary.

Associated with the mangrove swamp are various salt-tolerant plants, vertebrates and invertebrate fauna, microbes, and the fluctuating environmental identities such as salinity and chemical constituents of the muddy deposits, and depressed oxygen levels. Within the coastal belt, up to 80km wide where the water is saline or brackish, the vegetation is dominated by the red mangroves (*Rhizophora sp.*) and in some areas, especially towards the sea the black mangrove (*Avicennia Africana*). These form extensive thickets and forests in the brackish swamps. The mangroves reduce the effect of tidal currents and create silt and mud deposits within the area. These however, do not form hard ground and most are washed away readily during storms and floods. When mangrove trees are felled or destroyed by storms, invasion by the large fern (*Acrostichum auseum*) commonly takes place. This readily multiplies and becomes so dense that invasion by the light-demanding mangrove seedling is almost impossible and thus regeneration of mangrove vegetation is difficult. Also in open places in this zone the exotic palm (*Nypa fruticans*) are seen. Another typical shrub commonly found with *Avicennia* is the white mangrove (*Laguncularia racemosa*). In the freshwater region, the swamp forest is characterized by various trees with breathing roots such as raffia palm (*Raphia*) with patches of heavier forest on the islands and inland above the water table (NEST 1991).

2.2.2 Productivity of the Nigerian coastal waters

Primary productivity of the coastal waters of Nigeria has been estimated at 200g cm⁻² yr⁻¹ (Moses 1981). This high productivity has resulted in high abundance of fish stocks in the

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southeast coastal waters of Nigeria e.g. Bonga (*Ethmalosa fimbriata*) (Moses 1988), crayfish (*Nematopalaemon hastatus*, Moses 1994) and the shrimp *Panaeus notialis*, (Bayagbona 1979). Hence, Adetayo (1982) maintained that Nigerian industrial shrimping grounds lie east of longitude 5° E to the Nigerian-Cameroon border. It is also noted that during the rainy season, a branch of the eastward flowing current (Guinea current) meets with a westward flowing current (a near-coast tongue of the Benguela current) from Cameroon, off the Cross River estuary. The hydrographic disturbance occasioned by this convergence has been deemed strong enough to mix the water column and to mobilize nutrients from the deeper layers to the euphotic zone. The tropical surface water experiences high temperatures in the range of 26 ° C to 30°C (Williams, 1968). There is more or less a permanent thermocline, below which the temperature is in the region of 19°C. Thermocline occurs generally between the depths of 30 - 40meters.

The artisanal fishery exploits the suprathermocline and estuarine sciaenid sub-communities made up of the croakers (*Pseudotolithus* sp.), grunters (*Pomadasyidae*), catfishes, e.g. sea catfish (*Ariidae*) and estuarine catfish (*Chrysichthys* sp. and *Bagridae*), sole (*Cynoglossus* sp.), snapper (*Lutjanidae*), grouper (*Epinephelus* sp.) and rays (*Trygon* sp.). The trawl fishery exploits both the suprathermocline sciaenid communities and the sub-thermocline sparid fish assemblage (Moses 1990).

Fishery resource

Based on fish catch statistics of Nigeria, fish production from the Niger Delta states constitutes 43 per cent of national production. Table 2.6 shows the fish production figures for the six states of the Niger Delta between 2001 and 2004.

Table 2.6: Fish production in metric tons by Niger Delta States (2001-2004)

State	2001	2002	2003	2004
Akwa Ibom	80,724	94,652	87,654	85,452
Bayelsa	26,112	30,165	24,186	21,718
Cross River	13,959	10,972	12,279	11,074
Delta	22,661	25,025	24,575	23,933
Edo	9,489	10,934	10,024	8,474
Rivers	55,450	52,301	52,730	48,639
TOTAL	208,395	224,049	211,448	199,290

Source: Federal Ministry of Agriculture and Rural Development (2005)

The pelagic fish species commonly caught by artisanal and industrial fishermen in the region are shown in Table 2.7 while Table 2.8 shows the demersal fish species caught.

Table 2.7: Types of pelagic fishes caught in the region.

Family/Species	Common name
1. Clupeidae: <i>Ethmalosa fimbriata</i> <i>Ilisha Africana</i>	Herrings Bonga Shad or long-finned herring
2. Carangidae: <i>Caranx</i> species <i>Chloroscombrus chrysurus</i> <i>Decapturus rhonchus</i> <i>Trachurus trachurus</i> <i>Trachinotus</i> species	Jacks and Horse mackerels Jacks Scad Horse mackerel Pompano Pompano
3. Carcharhinidae: <i>Rhizoprionodon acutus</i> <i>Sphyrna</i> species	Sharks Milk sharks Hammerhead shark
4. Stromateidae <i>Stromatens</i> species	Butterfishes Butterfish
5. Palaemonidae <i>Nematopalaemon hastatus</i>	Crayfishes Crayfish

Source: Moses 1990

Table 2.8: Types of demersal fish species caught in the region

Family/Species	Common name
1. Scianidae <i>Pseudotolithus</i> species	Croaker ”
2. Cynoglossidae <i>Cynoglossus</i> species	Tongue soles, Sole
3. Polynemidae (Threadfins) <i>Polydactylus quadrifilis</i> , <i>Pentanemus quinquarius</i> <i>Galeoides decadactylus</i>	Shiny nose Threadfin Threadfin ”
4. Pomadasysidae <i>Pomadasyus</i> species <i>Branchydeuterus auritus</i>	Grunter Bigeye grunter ”
5. Ariidae <i>Arius</i> species	Sea catfish ”
6. Bagridae <i>Chrysichthys nigrodigitatus</i>	River catfish ”

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7. Drepanidae <i>Drapane africana</i>	Spadefish ”
8. Sphyraenidae <i>Sphyraena</i> species	Barracuda ”
9. Mugilidae <i>Liza</i> species <i>Mugil</i> species	Mullet ” ”
10. Lutjanidae <i>Lutjanus agenmes</i> , <i>Lutjanus goreensis</i>	Snapper ” ”
11. Serranidae <i>Epinephelus</i> species	Grouper ”
12. Sparidae <i>Pagrus</i> and <i>Dectex</i> species	Sea bream ”
13. Carcharhinidae <i>Rhizoprionodon acutus</i> <i>Sphyrna</i> species	Sharks, Milk sharks Hammerhead shark
14. Dasyatidae <i>Dasyatidae margarita</i>	Sting ray ”
15. Penaeidae (Penaeid Shrimps) <i>Penaeus notialis</i> <i>Parapenaeus longirostris</i>	Shrimps ” ”

Source: Moses (1990)

2.2.3 Demography

The Niger Delta has a combined population of 21,014,655 inhabitants with a mean population density of 248 per km²; almost double the national density (FBS 2006). Variations do however occur among component states as shown in Table 2.19. With a surface area of 84,616 km² it occupies less than 10% of Nigeria's total land-area but is inhabited by 15 percent of its population. Not all the residents of the region are natives, as various pull factors have generated an influx of migrants to the area. The rich fishery resource of the area has necessitated the eastward migration of fishermen to settle and fish in the area; reverse migration hardly occurs. These migrant fishermen include the Yoruba of Western Nigeria and others from nearby Republic of Ghana and Cameroon. This region also accommodates almost 100% of Nigeria's oil and gas deposits, with profuse exploratory and mining activities in its length and breadth. Consequently, all manners of workers migrate into the region for one form of vocation or the other, ranging from skilled to unskilled oil workers, ancillary workers (operators of support services),

Table 2.9: Population of Niger Delta States

State	Area(km ²)	Population	Population density
Akwa Ibom	6,900	3,902,051	568
Bayelsa	9,059	1,704,515	188
Cross River	21,787	2,892,988	133
Delta	17,108	4,112,445	240
Edo	19,187	3,233,366	168
Rivers	10,575	5,198,716	490
Regional Total	84,616	21,044,981	248

Source: Federal Bureau of Statistics (2006).

2.2.4 Socio-economic activities

Although fishing is the single most important occupation in the region, the people's economic activities vary with the physical environment. Traditionally, two major groups of inhabitants can be identified, namely: *inland dwellers* and *coastal dwellers*. The inland dwellers consist of the *Edo, Urhobo, Ibibio, Ogoni, Isoko, Annang* and *Ika Ibo* while the coastal dwellers are the *Ijaw, Efik, Ibibio, and Itshekiri*.

While the coastal dwellers are primarily engaged in fishing, the inland dwellers are traders, hunters, builders and farmers. Various forest products such as timber for construction of buildings, fuel-wood, oil palm products, game animals and crops are collected, processed and sold to others outside the zone. General household wares also reach the coastal dwellers along with other merchandise through traders from inland locations. Attempts to satisfy the demand for timber, fuel-wood and food crops by this group have led to wholesale destruction of the natural vegetation which has reached the proportion of a major ecological crisis in various parts of the region. Canoes are the principal means of transportation in the region, and their construction is an important industry of the inland dwellers. The freshwater swamp forests supply the trees used; mainly red iron wood. Felling of these trees for boat building increases the rate of deforestation (NEST 1991).

Over 70 percent of the adult working population is traditionally either directly involved in fishing or other fishing industry related businesses because fishing is a ready cash earner as opposed to farming in which a time-lag exists between planting and harvest. The large number of fishermen, the improved techniques adopted and the growing importance of sea fishing have combined to increase the quantity and quality of fish landed in the region. Correspondingly, the market for distribution of fresh, frozen and dried fish and crayfish has widened to far-flung inland locations. Compared with farming, the fishing industry has witnessed considerable innovation as reflected in the adoption of better fishing methods, the use of large motorized canoes, some good roads and water links with fishing centres and improved transportation of

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fish to the consuming centres. Large Ghanaian type canoes with outboard engines transport fish from the fishing settlements to river ports connected to inland markets by all season roads.

2.2.5 Impact of oil exploration on environment, livelihoods, migration, biodiversity and socio-economic life in the Niger Delta Region

Generally, traditional occupations of the people of the region have been greatly upset subsequent to the onset of oil exploration, exploitation and processing due to a set of factors. Research findings have shown that operations of the oil companies have impacted tremendously on the environment of their host communities, and exerted much pressure on their means of livelihood (Odje 2003). Spills and gas flares have resulted in loss of wildlife and upset to the ecosystem while hectares of farmland and mangrove have been lost to onshore oil installations. Contamination of farmlands, streams and rivers from spillage has resulted in loss of livelihood sources, and the people increasingly seek alternative means of sustenance; increased quest by indigenes of the region for employment in the oil companies, migration to other regions, to agitation and attendant militancy and abductions of oil workers (mostly foreigners), either to attract attention to their plight or secure ransom for release of captives. Affluence associated with employment in the oil companies serves as a pull to the farmers and fishermen and ultimately reduces farming and fishing populations. This is especially exacerbated by the flaunting of wealth by oil workers who mostly move into the region from communities of Nigeria's majority ethnic groups, especially the Igbos, Yorubas, Hausa/Fulanis – who constitute the country's political and economic elite. Indigenes that are educationally qualified to work in the oil industry are not employed because they do not fall within this group, while those lucky to be engaged are offered positions not commensurate with their educational status. Meanwhile, attention of the erstwhile fisherman is shifted from his/her traditional role to an acquired vocation to which he or she has migrated, in order to make ends meet.

Over the centuries, more than two dozen ethnic groups have inhabited the delta. Among them the Ijaw, the largest group, the Ibibio, Kalabari, Itsekiri, Ogoni, Isoko, Igbo, and Urhobo. These groups have a history of fighting over the spoils of the delta, from slaves to palm oil. In June 1956 when Nigeria was still a British colony, the first oil well was drilled at Oloibiri, a marshy creek-side 80 kilometers west of Port Harcourt and a "sweet" low – sulphur liquid called Bonny Light, easily refined into gasoline and diesel was produced in commercial quantity (Odje 2003). By mid-1970s, Nigeria had joined the Organization of Petroleum Exporting Countries (OPEC), and is currently ranked the sixth largest oil producer in the world. Oil accounts for 95 percent of Nigeria's exports and 75 percent of its revenue (World Bank, 1988), and its exploration and production have negatively impacted on the rich fishery, flora, fauna, and general ecosystem of the area. Oil drilling activities in the Niger Delta region upsets the environment, and the impact of oil pollution on the biological community or ecosystem varies from minimal to death of everything it comes in contact with. Bleak pictures are painted in some areas where crude oil leaks are trapped. The intricate, sheltered creek systems act as oil traps, which seriously affect the mangrove trees and other organisms located within the area. Against the back-drop of estuaries and mangrove swamps providing food and shelter for water fowls and fishes, crustaceans and mollusks utilized by an estimated two-third of world fisheries, decimation of these organisms raise serious problems for the inhabitants of the region.

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Crude oil is among the most ubiquitous and persistent environmental contaminants. All types of aquatic organisms are susceptible to the deadly effects of spilled oil, including mammals, aquatic birds, fish, insects, micro-organisms and vegetation (Oladimeji 1987; Ekweozor 1989; Singh and Gaur 1989). Because some components of crude oil are highly lipophilic, even small amounts entering the environment accumulate in aquatic organisms. Predators at high trophic levels such as fishes accumulate them directly from the surrounding water and indirectly through the food chain (Mayer and Mayer 1985; Malawska and Wilkomirski 2001). The greatest toxic damage has been caused by spills of lighter oil than heavy oil, especially when confined in small areas. Spills of heavy oils blanket areas of the shore and kill organisms mainly through smothering (a physical effect) rather than through acute toxic effects. Oil toxicity is reduced as the oil weathers, the speed usually depending on oil type and length of exposure time. Thus, oil spills which reach the shore quickly are more toxic to the shore life than if the slick had been weathering at sea for several days before stranding.

Unfortunately, in the Delta, several on-shore oil rigs are located within the mangrove forest and no weathering time is allowed between spill and impact on the ecosystem if accidents occur, as they so often do. Sand and mud shores teem with high biological productivity, with burrows by worms, mollusks and crustaceans, as well as stem and root systems of marsh plants. Under normal conditions, these pathways allow the penetration of oxygen into sediments that would otherwise be anaerobic. Oil spills result in sub-surface penetration through these pathways, followed by death of the organisms that normally maintain the pathways. The pathways then collapse; burrows become filled in with sediments from the top and oil trapped in anaerobic sediment, where degradation rate is considerably slower and organisms trying to re-colonize encounter toxic hydrocarbons. In such condition, oil-tolerant opportunistic species are favoured, thus resulting in ecological imbalance. High temperature and wind speeds increase evaporation, which leads to a decrease in toxicity of oil remaining on the water. Temperature affects the viscosity of the oil (and so the ease with which it can be dispersed, and with which it can penetrate sediments). Temperature, together with oxygen and nutrient supply, determine the rate of microbial degradation which is the ultimate fate of oil in the environment (Oladimeji 1987; Ekweozor 1989).

2.3 The research area, Akwa Ibom State

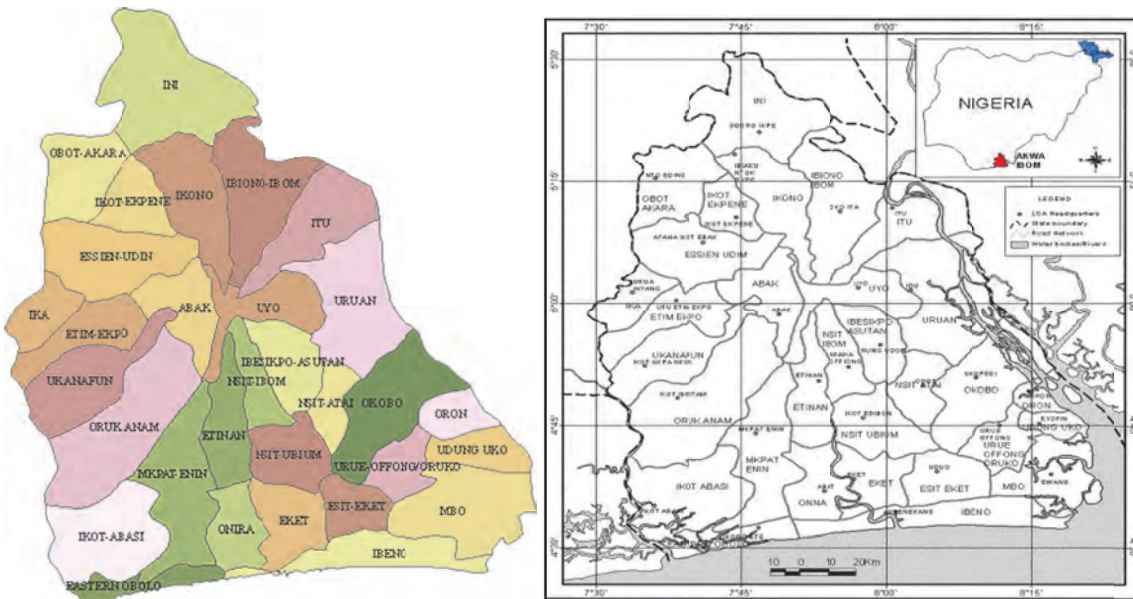
2.3.1 Physical setting

Relief and drainage

Apart from the north eastern districts which drain into the Cross River valley, Akwa Ibom State is underlain by one main geological formation, the coastal plain sands. In the coastal districts of Ikot Abasi, Eastern Obolo, Esit Eket, Ibeno, Oron and Mbo, the formation consists of recent alluvium and is characterized by extensive undulating plains. The many small perennial rivers which drain this low lying area enter the ocean through marshy creeks.

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Figures 2.4: Map of Akwa Ibom State



Source: <http://www.akwaibomnewsonline.com/image>

Further inland, the rivers are few and far between, while the vast interfluves carry many dry valleys, resulting in the scarcity of domestic water supply in the most rural areas of Ikot Ekpene, Abak, Ukanafun and Uyo districts. The rather flat terrain and straight river courses of the region are attributed to the homogeneity of the rock type and the absence of tectonic disturbances (AKS 2005).

Rugged landscapes feature in Ini, Ikono, Ibiono and Itu Local Government areas where the underlying rocks consists of limestone, shale and sandstones of the lower coal measures. The hills and ridges of this region which are separated by flood prone lowlands are remnants of the west-east extension of the Enugu-Okigwe escarpment which terminate at Arochukwu. At Ibiaku Ntok Okpo, Obotme and along Ibiono-Itu road, the hilly landscape has been greatly ravaged by gully erosion which has caused much damage to farmlands, roads and even dwelling houses.

The highly dissected country-sides of Ikono and Ibiono drain into the Cross River through the Enyong Creek. A large number of streams flow through steep gorges before disappearing into the vast swamps of the Enyong Creek valley. Surface water is abundant and extensive floods occur during the rainy season, when some settlements are completely cut off from the rest of the state. A greater part of the state is drained by the Kwa Ibo River. Numerous dry valleys that used to carry seasonal streams in the past are characteristic of this part of the state. Many settlements therefore suffer from acute shortage of potable water, especially during the dry season months (AKS 2005).

Climate

Temperature conditions are similar all over the state throughout the year but the highest temperatures are recorded towards the end of the dry season, shortly after the harmattan haze has disappeared. The resultant clear skies permit uninterrupted sunshine, resulting in high

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temperatures in February and March months which are the hottest. The mean annual temperature at this time is over 27⁰C. The coldest months are July and August, when heavy rain clouds which may remain unbroken for days along the coast, have the effect of lowering the temperature. The diurnal marginal variation in temperature, varying only from 7⁰C to 9⁰C, increases with distance from the coast.

There are two major seasons in the year, the rainy season (March to October) and the dry season (November to February). The mean annual rainfall decreases inland from about 3170 mm at Eket to 2340mm at Ikot Ekpene. The first rains in March or April come in violent storms destroying crops and roofs of houses. The downpour is usually heavy and of short duration. Prolonged rainfalls lasting a full day or more occur along the coast from the month of June. A short break in the rains lasting about two weeks occurs in August, giving rise to a two-maximum rainfall regime (AKS 2005).

Vegetation

The high temperatures, copious rainfall and high humidity favour quick plant growth. The original vegetation of the state is lowland rain forest, excepting along the coastal swamps, where mangrove forest occur. Over most of the state, forest vegetation has been largely replaced by farmland and a secondary vegetation rich in oil palm. In the very densely populated rural areas, traces of the original rain forest are restricted to a few sacred groves which are rarely more than a half hectare in extent and more or less represents strategic conservation practices. The oil palm is the dominant tree species on farmland, fallow bush and the oil palm groves. Valuable forest trees, such as Iroko, Obeche, Afara and fruit trees, are spared when the land is cleared for farming. Good timber trees are now restricted to the few forested areas in the sparsely settled areas of Ibiono, Ikono and Eket districts. Along river valleys and the extensive wetlands of Enyong Creek, the oil palm bush gives way to raffia palm forests (AKS 2005).

Extensive deforestation has created problems of shortage of forest products for craft industries such as carving of mortar and pestles, canoes and the making of cane chairs. Edible vegetables and fruits, formerly collected from the forest, have had to be cultivated in recent years. A few forest plantations have also been established by individuals and local governments. Much of the timber for the construction of buildings in the state now comes from forests in the contiguous Cross River State.

Soils

Ferrallitic soils, the so-called acid sands which are derived from sandy deposits as parent materials, cover over 80 per cent of the state (Obihara 1961). The soils are rich in free iron, but have a low mineral reserve and therefore have very low natural fertility. Deep porous brown soils feature in the southern and central districts of Uyo, Oron and Etinan. While the north and north-western districts have reddish soils. These soils are very well drained and have a sandy loam surface with low humus content. Along the coast, the soils consist of brownish yellow fine sandy soils derived from beach deposits. Alluvial soils are also found along the Cross River valley. In the north-eastern districts, the soils are derived from sandy shale and generally more fertile than the acid sands.

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Mineral resources

Akwa Ibom is currently the third largest oil producing state in the country after Delta and Rivers states. Crude oil production is currently from eight offshore locations operated by the Exxon Mobil Company with regional headquarters at Eket. The company also has 14 other locations where crude oil has been found in commercial quantities. Shell Petroleum also operates 12 oil wells near Iko in Mkpato local Government Area of the state. Natural gas is also produced along with crude oil, but so far much of the gas is flared and wasted. A few other minerals such as limestone, coal, glass sand, clay, salt, as well as gravel deposits, also occur in the state (AKS 2005).

Ecological problems

The most pervasive ecological problem in Akwa Ibom State is soil erosion and beach erosion along the creeks of the coastal areas of Ibeno, Mbo, Ibiono and Itu districts. Extensive damage to land caused by gully erosion occurs in the dissected hilly parts of the northern and north eastern areas. At Obotme, near Arochuku, for example, the factors that combine to cause severe gully erosion are poor land use management, rainfall intensity, slope angles and the nature of the lithology and structural stability of the soils. Sheet erosion is the major cause of soil loss from farmlands on hilly slopes but the most destructive cases of soil erosion occur along footpaths leading from the hill settlements to water points at the foot of the hill. The recession of the head of the deep ravines at highly prone areas has resulted in loss of life and the washing away of dwelling houses and other infrastructures before government intervention to reclaim the gullies.

Other sites of severe cases of gully erosion include the Uyo ravine which has over the years destroyed streets and buildings in its adjoining areas. The NIFOR oil palm estate near Abak has suffered loss of land and houses to erosion gullies while many trunk roads at Ikot Ekpen, Mbiabong Ikot Udofia and Nung Udoe, amongst others have been threatened by advancing gully heads. Loss of soil over extensive areas due to coastal erosion has been reported along the coastlands at Eket, Ibeno, Ikot Abasi, Esit Eket, Oron and Mbo. Oil pollution affects the coastal and creeks areas of Mbo, Oron, Ibeno, Eket, Esit Eket and Ikot Abasi districts. The coastal fisheries have been extensively damaged through oil pollution and further inland, oil spillage from pipelines has also been a source of pollution of the creeks and ponds, the source of drinking water for the local people. Gas flaring from the Shell flow stations and oil wells is also another source of environmental hazard that has caused much damage to farmlands, vegetation and animal life (AKS 2005).

2.3.2 Demography and health

Population

The 2006 population census figure for Akwa Ibom State is 3,920,208 (National Population Commission 2007). The average population density of the state, which has a land mass of 6900 km², is 568 people per km² (FGN 2004). This is about 3.7 times the average density of 152 persons per km² for the country. A recent study conducted by the Akwa Ibom State Government indicates that almost 90 percent of the people still live in rural areas (AKS Study Report 2005), and the concentration of people in some local government areas is very high.

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Etinan, Eket and parts of Ikot Ekpene, Onna and Essien Udim Local Government Areas for example, have very high population densities of 400 persons per km². There are however, vast areas of permanent swamps along the Enyong Creek, and the coastal areas of Eket, Mbo, Ikot Abasi, Eastern Obolo and Oron which are either very sparsely populated or totally uninhabited. Swampy areas unsuitable for settlements also occur in the lower Cross River valley in Ibiono, Itu and Uruan LGAs.

These very high rural population densities have resulted in rising demand for farmland and great pressure on land and other resources in most parts of the state. The incidence of rural poverty has been on the increase since the end of the civil war in 1970. A large number of young people, mostly men have therefore migrated to other parts of the country in search of wage employment. Many of the migrants go to the urban areas but a substantial number are still engaged as labourers in commercial plantations and private farms in rural areas. Migrants from Akwa Ibom State are also found as migrant tenant farmers all over Cross River State as well as in Rivers and Delta States. The neighbouring Republics of Equatorial Guinea and Cameroon also attract many migrants from the state.

Another feature of the population structure is the large proportion of children below 15 years of age, resulting in high juvenile dependency ratio which is particularly burdensome because of wide spread poverty amongst the predominantly rural population of small scale farmers. Average household composition in the state is found to be 5.1 persons per household, with over 80 percent of them headed by males. There is a sex ratio of 102.9 males to 100 females in the state, while about a third of the population (32.78%) is below 15 years and 65.58 percent are between the ages of 15 and 64 years. More females in the state are married compared to their male counterparts. Interestingly too, more females were separated and widowed than their male counterparts. According to the Socio-Economic Study Report of the Akwa Ibom State Government (2005), 17 percent of females in the state were heads of households though a higher percentage (26%) of females in Oron, a contiguous Local Government Area to the research area, were household heads. Overall literacy level is 75 percent though the bulk of those with educational qualifications, over 70 percent, have only primary and secondary education certificates (AKS 2005; NDHDR 2009).

Health and family planning

The people of the state, both male and female, are abreast of information on family planning. On the average, locations of settlements do not hamper the flow of adequate information on family planning; 95 percent of urban residents have been adequately informed while about 90 percent of the rural population is also well informed of family planning and birth control management. This success is attributable to utilization of several media, including the radio, television, government and NGO organized workshops and seminars (NDHDR 2009).

2.3.3 Socio-economic conditions

The economic and social progress of Nigeria has, to some extent, depended on its natural endowments including existing geographical factors and human elements. This is also true of Akwa Ibom State in which the research area is located in its southeastern corner. It appears that in what is now Akwa Ibom State, human capital has been the main source of socio-economic well being since independence.

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Agriculture and fisheries

Agriculture is the bedrock of the state economy and currently provides employment for about 70 percent of the state's labour force. Indeed, the standard of living of the farming family in the state is almost always directly related to the productivity of the farmer and his land. Production, on the other hand, depends on the agricultural technology in use. Unfortunately, indigenous farmers have always relied on age-long traditional farming practices and generally declining productivity of the land have been reported due to continuous cropping without the application of soil regeneration inputs and practices. Declining productivity of the farmer and his land has always directly reflected in declined standard of living and welfare. The breakout of the *cassava leaf mosaic* disease during the mid – 1980s threatened to wipe out cassava, the staple food crop of the region and worsen the bleak socio-economic conditions of the people (AKS 1989) However, the overall objective of the State Agricultural Policy is self-sufficiency and self-reliance in food production. Accordingly, the government has continued with policy measures of providing agricultural inputs such as improved seedlings, fertilizer and agricultural credit. The State Ministry of Agriculture and Natural Resources is responsible for the formulation and implementation of government agricultural policies and its efforts are complemented by the Cross River Basin Development Authority (CRBDA) which oversees Akwa Ibom and the contiguous Cross River State which together contain the Cross River Basin.

A recent privatization and commercialization policy of the federal government has altered the State government's approach to agricultural development. The current approach is on stimulation of agricultural development through agricultural advisory services directed by trained field extension personnel who advise farmers on improved inputs and methodology of various agricultural operations through dissemination of research findings to farmers, monitoring of field activities and transmission of results to research institutions. This does not cover fisheries sufficiently though because there are very few fisheries extension officers in the field, and they are hardly funded.

The State agricultural sector has embarked on a number of laudable schemes which include the oil palm development scheme, cocoa and rubber plantation schemes, grain storage and swamp rice small holder schemes, and agricultural loans schemes. The adoption of second-season (late planting) practice has been intensified in recent years to bridge the gap between food demand and supply.

Fisheries development in the State has attracted government's attention with emphasis on the development of artisanal marine fisheries, fish seed multiplication centres and subsidy to fish farmers. In addition, there has been fisheries resources survey which has concentrated on investigating the stock of commercially important species of fish, their growth, maturity, breeding and migratory habits. The State government has always made substantial annual budgetary allocations for the development of the agricultural sector, since the sector has played a leading role in the development of the State's economy (AKS 2005).

Investments

The State comprises the public and private sectors, with the public sector mainly concerned with the public service and government sponsored programmes while the private sector is concerned with small and medium scale business.

In line with the privatization goal of the Federal Government, the Akwa Ibom State Government has adopted, as its industrial and commercial policy, a supportive role in terms of

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provision of a congenial environment, accessibility to capital funds, feasibility studies and improvement on raw material sourcing and technologically-oriented investment for private sector initiatives (AKS 1992). The provision of accessibility to capital funds has been in partnership with the Industrial Development Finance Company which the State government has attempted to reorganize and revamp. The introduction of the rural banking programme throughout the country was aimed at the establishments of industrial / manufacturing projects and expansion of existing ones in the country. Community Banks, for example, have been established in almost all the 31 Local Government Areas in the State in an effort to get institutional funds closer to the people.

To attract investors to the State, the State government has stressed the need for a viable tourist industry in the state. Accordingly, two tourist centres have been developed at Nwaniba, a resort on the Cross River bank and Ibeno, a sand beach on the Atlantic coast. A functional Five-Star Hotel and a Golf Course are located at the Nwaniba resort. With a boost from these tourism facilities, it is believed that investors will be attracted to the state and it will stand to gain from this area of investment (AKS 2005).

Transport sector

The development of a functional transport system is an imperative for the development of any economy since it “enhances the development of other vital economic and social sectors” (Ukpong and Iniodu 1991: 107). A good transport system is a physical infrastructure upon which all other economic and social activities in the system ultimately depend. An all-season network of roads is essential for the free movement of goods and services within the economy. Conscious of the importance of an efficient road transport system in rural transformation, the State government has successfully embarked on a number of road development programmes. Also receiving attention to reduce congestion within the capital city has been the rehabilitation and maintenance of access roads and the establishment of the ring-road system in the state capital. The maintenance culture has been emphasized in almost all the budget statements of the state government since the creation of the state, providing for repairs and rehabilitation of existing infrastructure to safe-guard existing investment from decay.

Electricity

Electricity plays an important role in the economic and social development of any economy. It is a major input in manufacturing and service enterprises as well as in irrigation and agro-processing factories. The state government has been conscious of the importance of electricity in the commercial, social and industrial life of the people and is currently installing a state-owned Independent Power Plant (IPP) aimed at uplifting the standard of living of its citizens. The Government requires electricity for radio and television sets to communicate regularly and effectively with the masses that reside in rural areas far removed from the capital and educate them on their rights and privileges, entertain and inform them, as well as, appeal to them to pay taxes and generally mobilize them for effective good citizenship (AKS 1989). The state government has consistently emphasized rural electrification as a means of bringing development to rural areas and substantial amount of money are allocated in annual budgets for rural electrification and by way of policy, government directs benefiting communities to contribute towards it, having identified that the communities are inclined to safeguard infrastructure to which their resources have been put. Accordingly, local governments and the communities have participated enthusiastically in the provision of electricity in the state.

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However, electricity supply is still grossly inadequate when viewed against the back-drop of high demand prevalent in the state. Distribution facilities in towns and villages linked to power grid are overloaded due to population pressure and have led to frequent power outages, power failures and load shedding to the detriment of commercial and industrial activities, as well as the well-being and comfort of the citizenry.

2.3.4 Social Sector

The provision of social services has occupied the attention of the state government since its creation. The UNRISD Report (2010) points out that the social policy areas that are highly relevant to strategies aimed at meeting the basic needs of the poor apply particularly to education and health policies and services, and to the provision of housing and related infrastructure. In addition to these important infrastructural services, the state government has directed efforts towards the provision of potable water and, in recent years, to women's development through greater recognition of the role of women in governance and in the community.

Education

The state government regards education as the bedrock of economic and social development. Education develops the human factor of production and therefore serves not only as an agent of social transformation but also as a unique instrument for promoting economic development. It is a basic need and government has tried to provide equality of access to educational services, especially in rural areas. Equal opportunity to education provides opportunity for all citizens (men and women, young and old) to fully participate in the social, cultural, economic and political life of the community.

At its creation in 1987, the state had 1031 primary schools, 252 publicly owned post-primary schools, 12 technical schools, 370 adult education centres and a university which was jointly owned by Akwa Ibom State and the neighbouring Cross River State. There were also 50 Nursery Schools, 30 private post-primary schools and 70 Secretarial Training institutions. The university was taken over by the Federal Government in 1992. Today, there are 122 privately owned pre-primary institutions with the enrolment of over 11,700 pupils, 1053 primary schools and 253 post-primary institutions with an enrolment of about 121,500 students. There are also four science colleges, seven government-owned technical/vocational institutions and twelve privately-owned ones. Adult education has received a boost in recent years with 409 adult education centres and four special schools. There is also a state-owned polytechnic and a science-based college of education. As obtained in the rest of the country, the state government has adopted the 6-3-3-4 system of education. Emphasis in this system is on functional education as well as science and technology. Accordingly, the state government has ensured the installation of Introductory Science and Technology equipment in some Junior Secondary Schools (JSS) and science equipment in Senior Secondary Schools (SSS) especially those designated as "Science Colleges" (AKS 2005).

Health

Health and nutrition are both necessities and basic requirements. Essien (1991) defines health not only as the absence of disease or infirmity but as “a process of complete physical, spiritual and social well-being which is often influenced by environmental, hereditary and experiential action of the person(s)”. Against the back-drop of insufficiency in health-care delivery at the close of the last century, a National Policy goal for the health sector to ensure “health for all by the year 2000” was introduced in Nigeria. In line with this policy, Akwa Ibom State Government devised a number of policy measures to enhance the health-care delivery system of the state such as:

- (a) Implementation of Primary Health-care Programme including immunization, rural water supply and sanitation;
- (b) Implementation of the National Basic Drug List;
- (c) Training of health personnel;
- (d) Building of more and strengthening of existing health-care institutions;
- (e) Entering into partnerships with institutions and communities to build and manage health institutions;
- (f) Adopting measures to boost the morale of health workers for greater efficiency;
- (g) Laying emphasis on both the preventive and curative component of health-care delivery; and
- (h) Liaising with the Federal Government and International Agencies like UNICEF and WHO to extend the benefits of health-care delivery to all (AKS 1988).

The State has a number of health institutions which include hospitals, health centres, private clinics and some training institutions for health personnel. Through the State Ministry of Health, it has fully participated in such national health programmes as the Expanded Programme on Immunization (EPI), the Oral Rehydration Therapy (ORT), the National Drug Programme and other health related national programmes including the Family Planning Scheme.

The high premium which the state government places on the health-care delivery system is demonstrated by the substantial amounts of money which it allocates in its annual budgets to the health sector. In 1989, about 10.5 percent of the State Budget was allocated to the health sector. In the same way, about 11 percent of total capital expenditure was allocated to the health sector in the 1992 Annual budget, with emphasis on Primary Health Care, in line with the National Health Policy. The main focus was to bring health services to the doorsteps of the people. The “Health at the Doorstep” scheme is a strategy aimed at involving the family and the community in the care of the poor and the underprivileged. It is also intended to assist the old and weak men, women and the handicapped that may not be able to trek to the health centres for treatment. A Specialist Hospital equipped to treat difficult and critical health cases has been sited at the State capital, further emphasizing government’s concern for the people’s health (AKS 1992).

In order to protect the environment from further degradation, a Task Force Committee on Environmental Sanitation and Protection has been set up with the responsibility of taking “all lawful measures” to ensure the continuous cleanliness of the state. The State Government, through the Task Force, educates the people on proper handling of waste and ensures consciousness of the masses through promotion of jingles and advertisements in the media towards a clean and safe environment.

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Housing

The state government has been conscious of the importance of adequate housing not only for the social well-being of its citizens but also for the economic progress of the state. Consequently, it has established housing estates in Uyo, the state capital as well as in all the 31 local government headquarters to cater for the influx of people to the state, especially top government officials. Steps have also been taken to develop new housing schemes for the people and local government councils have been encouraged to pursue the same goals. While the state government has continued to allocate substantial amounts of money in its annual budgets for the provision of residential and office accommodation, the policy of government on private accommodation has been supportive through the provision of site, infrastructure and services (AKS 1992). In this connection, the Property Development Authority and the Land Use Allocation Committee has been directed to make land available to interested private developers at affordable costs. This measure is expected to constitute part of incentives to possible investors in the state economy.

Housing development also indirectly creates employment opportunities for the unemployed through skilled as well as casual labour required in their construction. Government efforts are however hampered by high cost of building materials which hinders the government's programme for private participation in the housing schemes. The involvement of private entrepreneurs in housing development will therefore be hinged on government's ability to make building materials available to private developers at affordable prices.

Water

The provision of good drinking water in the state has been of serious concern to the state government. A number of completed and uncompleted water projects abound in the state. Prior to the creation of the state, there were impressive water schemes for the densely populated urban areas of Abak, Eket, Etinan, Ikot Ekpene, Itu, Oron and Uyo. The state government through the State Water Corporation has partnered with Local Communities towards the provision of mini-water schemes in remote rural communities to which urban water supply are not available. The state government has always been poised to meet its potable water supply commitment to the people by sourcing for funds from appropriate financial institutions and the capital market to finance water projects (AKS 2005).

These efforts of government, as laudable as they are, have not been consistent as the services of the State Water Corporation have been very inadequate, inefficient and epileptic. It is common to notice that taps go dry barely few months after commissioning of such projects. Such taps may remain dry for months due to broken pipes, broken down pumps, etc. with no serious attempt to ameliorate the situation thereby exposing the citizens to the dangers associated with unclean and unsafe sources of water, the very essence of providing the various urban and rural water schemes.

The Better Life Programme (BLP)

The Better Life Programme which was initially aimed at improving the lives and living conditions of rural women in Nigeria was implemented between 1987 and 1998. The objective was later expanded to include all rural dwellers with emphasis on rural women and their families. The programme stimulated women's economic and social activities, encouraged

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women to rise to the challenges of the day and mobilized them for active participation in the economic, political and social development of the rural communities. The programme promoted income generating self-help enterprise to provide self-employment, ensure self improvement and guarantee self-reliance. Through this programme a number of women were involved in many coordinated activities in the field of agriculture, education, health, cottage and small-scale industrial enterprises and social welfare. To ensure active and meaningful participation of women, exhibitions, seminars, symposia and workshops were organized to educate women and upgrade their knowledge and skills in various fields of endeavour. Training programmes were organized for women all over the country on soya beans processing and utilization by Canada Fund and the Better Life Programme while a workshop on enhancing the participation of women in the political decision making process was held at Abuja to examine the reasons for the low participation of women in politics and suggest measures for integrating women into the body politic of the states and the nation. In addition, the Better Life Programme mobilized women from all local government areas to form and operate co-operative societies to enable them to benefit from facilities such as credit from banks and inputs from the government. However, the programme faced many challenges and did not achieve much because the efforts were not consistent (Egbo 2002). A lot still therefore needs to be done in the area of women's socio-economic development and their integration into the political process in Nigeria.

Agriculture played a key role in the programme and food production was a top priority, with "more food for the people" as its slogan (Okon and Ubon 1993). To assist the state in achieving its goal of self-sufficiency in food production, the Akwa Ibom BLP initiated a number of agro-based projects which included cassava farms, vegetables farms, livestock and fish farms, rice farms and oil palm plantation. It also established food processing mills for cassava, rice and palm oil throughout the state for value addition to the raw products.

The BLP also stressed the need for women to acquire functional and formal education as a tool for achieving a better life for themselves and their families. Accordingly, young women were encouraged to compete with their male counterparts in all aspects of education including technical and higher education. It also encouraged rural women to participate in the various programmes of the Agency for Adult and Non-formal Education (AANE).

The Better Life Programme in the state also showed serious concern for the health-care delivery system in the rural areas. Its health committee mounted an enlightenment programme called, "Better Alive Programme" to create awareness in health matters among rural dwellers. These campaigns featured cancer, nutrition, EPI/ORT, maternal mortality, prevention and control of hypertension and family planning. In summary, the BLP attempted to address all issues aimed at improving the socio-economic conditions of all the women and raising the standard of living of those residing in the rural areas.

2.3.5 Social structure and community life

Types and distribution of settlements

About 75 per cent of the population of Akwa Ibom lives in villages and hamlets made up of several dwelling units called compounds. Each compound consists of the house of the head of the family, the houses of his wives, children and other members of the extended family as well as smaller buildings for storing farm produce. The size of the compounds varies with the number of wives and children of the head. Each compound is usually surrounded by a fence of

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live-sticks or earth walls. Most compounds include a small area of homestead farm which is cultivated every year. A larger parcel of land under permanent cultivation usually surrounds the fenced compound.

Nucleated villages and hamlets are typical of swampy areas along the coast and along the Enyong Creek and the Cross River valley where settlement sites are restricted to few areas not liable to flooding. In other parts of the state, there are no natural obstacles to establishing settlements. Dispersed compounds are the typical pattern of settlement in such areas. The dispersal is so complete that there are no streets or roads in a village since each compound is isolated and embedded in the vegetation of crops and fruit trees that grow on the compound land (UNDPNDR 2004).

In the very densely populated districts with over 450 persons per square km the entire landscape is covered with dispersed family compounds, such that one village merges with another. The identity of each village in these areas is established by the sign posts that welcome the motorist to the village at one end of the road and bids goodbye to him at the other end.

Ethnic composition

At the founding of the Ibibio State Union in 1928, the entire people of what is today Akwa Ibom State identified themselves as Ibibios, excepting perhaps the Oron and Ibeno people along the coast (Noah 1987). All inhabitants of the state understand the Ibibio language of which there are many dialects. The apparent ethnic homogeneity of the state became disrupted as far back as 1951 when party politics brought about leadership disputes. Thereafter, two major ethnic groups emerged, the Ibibio and the Annang, with several other smaller ethnic groups such as Oron, Ibeno, and Andoni fighting for recognition. The 2006 census figures show that the Annang, living in the six local government areas constitute about 30 percent of the population while the Oron people who occupy five local government areas constitute almost 10 percent of the population. The Ibibio therefore make up almost 60 per cent of the population of the State (FBS 2006).

Culture and the arts

The culture and arts of the people are greatly influenced by religious beliefs and their basic occupations of farming and fishing. The great majority of the people profess Christianity, leaving a small minority as adherents of African traditional religion. Until about 1970, the dominant Christian denominations were Roman Catholics, Methodists, Presbyterians, Qua Iboe and Lutheran. The last twenty years has witnessed the registration of over 100 syncretic Christians of which the Brotherhood of the Cross and Star has the largest followers. A large number of professed Christians still believe in and practice some aspects of traditional religion which involves black arts including witchcraft. The numerous traditional cults, secret societies, oracles, mythology, folklore and festivals, along with modifications imposed by the Christian religion, have combined to produce a great variety of cultural artifacts and plays.

Conclusion

In conclusion, the Nigerian nation is well endowed with human and natural resources as shown in the animal and plant species enumerated in this chapter. The total landmass, water area and length of the coastline present opportunities for sustainable development through the rational

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exploitation of its natural resources, development of the agricultural and fisheries sector, infrastructural facilities and its human resources. However, colonialism, the irrational exploitation of its oil wealth and non-consistent method of implementation of its development policies have proved to be its bane to rapid, rational and sustainable development. In particular, the irrational approach to the development of its oil and gas sector has caused untold damage to the environment, adversely affecting the biodiversity of animal and plant species. The livelihood options of the people have been drastically reduced through the destruction of their natural environment, engendering forced migrations for the male folk from the Niger Delta communities which harbor the oil and gas deposits. The young male folks remaining in the communities have resorted to violence as a means of protest against the Nigerian nation, for the perceived treatment meted out to the people of the Niger Delta, putting the women at more risk. The result has been untold hardship and high levels of poverty for the Niger Delta communities, especially the women left behind.

However, realizing that the conflicts arising from the problems created by the irrational exploitation of oil and gas in the Niger Delta posed a threat to its economic survival and national security, the Nigerian government has started putting in place some mitigation strategies targeted at the young men only. Because the strategies are not holistic, taking care of the problems of all the stakeholders in the community, it would take several years to have an effect and reverse the trend, judging by the colossal damage done by over fifty years of oil and gas exploitation in the Delta. The women, having not been consulted in all of these are waiting and watching, amidst their struggles for survival.

CHAPTER 3

The research problem, literature review and the conceptual framework

This chapter discusses the research problem, the objective of the study, as well as the main concepts used in the formulation of the research problem and research question. It also presents a review of the literature as well as the definitions of the concepts used. A conceptual framework, based upon existing literature in which the linkages of the important concepts in this study are proposed, is presented at the end of the chapter.

3.1 The research problem

Studies in other places have shown that women in coastal fishing communities are de facto household heads, having to fend for their households without any cultural or institutional support (Verstralen and Isebor 1997; Niehof *et al.* 2005; Haddad 1999; Bortei-Duku 1991; FAO 1990). Many of the fish traders in the Niger Delta fall into this category being either separated from their husbands, never married, or in polygamous relationships, with husbands either at sea or in different fishing settlements (Verstralen and Isebor 1997). They thus straddle both the domestic and economic domains, which creates a double burden for them, limiting their performance in both spheres. According to Kabeer, these domains influence each other directly and the level of performance in both spheres determines the status of the women in society, their level of vulnerability, and the wellbeing of their households (Kabeer 1991). In the Niger Delta, women lack the resources and assets needed to sustain their households and attain livelihood and food security. They also find it difficult to sustain their households due to institutional and cultural constraints, which make their livelihoods even more vulnerable. Institutional and cultural constraints affect women's time allocation behaviour in rural households (Kabeer 1991; Waguespack 2005; Khandker 1988; Kevane and Wydick 2001). Underdeveloped infrastructure and the denial of political and civil rights also contribute to their vulnerability (Okome 2000).

In Nigeria, patriarchy defines patterns of inheritance, kinship and other cultural norms expressed in gender relations, division of labour, value systems, ethnicity and modes of worship (Mba 1982, 2001). In addition, tasks, activities, and responsibilities are allocated according to sex and power relations manifest in practices such as division of labour, intra-household food distribution and decision-making (Dasgupta 2000; Waguespack 2005). Sexual discrimination in access to resources, food, healthcare and education in households has also been reported by Okome (2000) and Jha and Subrahmanian (2004). Thus, women have to fend for themselves and their households, handling both the economic and domestic responsibilities.

This double burden causes stress, time allocation problems, and role conflicts, which may limit their productivity and performance both in the domestic and economic

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spheres (Leatherman 1996, 2005; Abrahamsen 1997; Haddad and Gillespie 2001; Drinkwater 2003). In addition, Allison and Seeley (2004) have reported HIV/AIDS to be more prevalent in fishing than in farming communities. If present in Ibaka, it could aggravate the women's struggle for survival as it is reported to impact negatively on health, reproductive and economic activities, limiting livelihood options and causing labour shortages and asset depletion which altogether make affected communities more vulnerable (Allison and Seeley 2004; Béné et al. 2005).

To address the research problem, therefore, I looked into the issues of how fish traders manage their trade and families for the food and livelihood security of their households. In the process, I looked also at the structure and functioning of the market, issues of access to finance and credit capital, the cultural and institutional challenges and their strategic responses. Factors influencing the women fish traders' strategic responses are considered, as well as their susceptibility to HIV/AIDS. This study therefore intends to address the issues contributing to the performance of women fish traders in the face of institutional and cultural constraints, their adaptation strategies, their susceptibility to HIV/AIDS, and the implications for household food and livelihood security.

The objective of this research is therefore:

To investigate the performance of fish traders in Ibaka in their economic and domestic domains, the effects of institutional and cultural constraints on their performance, and the strategic responses they employ to ensure the livelihood security of their households.

Based on the research problem the following research question was formulated:

How do women fish traders in Ibaka perform in the economic and domestic domains given the prevailing cultural and institutional constraints, what adaptation strategies do they use, and how does performance in each domain affect performance in the other?

This research aims at providing a clear understanding about the livelihood strategies adopted by the fish traders in adapting to the challenges posed by both cultural and institutional constraints in both their economic and domestic domains, and the relationship between the two domains in the household. It would therefore contribute to the design of appropriate intervention policies and procedures that would lead to the empowerment of the women and the provision of sustainable livelihoods resulting in the livelihood security of their households, and the sustainable development of fishing communities in the Niger Delta and Nigeria.

3.2 Definition and discussion of key concepts

The discussion revolves around seven core concepts. These are: household, livelihood, gender, the fish marketing system, agency, the institutional and cultural dimensions, and HIV/AIDS. The chapter first reviews the theoretical discussions on the concepts before discussing their inter-relationships and importance for achieving livelihood outcomes such as food and livelihood security. Attention is also being paid to how the women fish traders are affected by institutional and cultural constraints and how they deal with risks. The concepts and the

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framework that determine the vulnerability of their households to HIV/AIDS are also discussed.

3.2.1 Household

Many livelihood studies use the household as the unit of analysis (Niehof and Price 2001; Niehof 2004). Ideally, a study dealing with the performance of women fish traders in their economic and domestic domains should deal at the local, regional and national levels and the relationship between them because livelihoods at the local level are closely intertwined with the policies and practices at different and higher levels. Households are not homogenous social entities in which all members share the same goals, concerns or visions with regard to appropriate livelihood pathways. Both intra- and inter-household relationships are differentiated by the household's assets base, the ability of the members to access, defend, and sustain these assets, and eventually transform them into required livelihood outcomes. However, taking the household as a unit of analysis imposes certain constraints such as the under-estimation of certain structural macro-factors as vulnerability context and Policies, Institutions and Processes (PIPs). The importance of fluid geographical boundaries is also underexposed.

The household is regarded as a form of social organisation and part of the social and economic environment where social activities and livelihood generation take place (Niehof 1999a, 1999b, 2004). It acts as a buffer for all the members against individual vulnerability and is a key to the security of its members when external resources deteriorate, redistributing income and other resources (Moser 1996). It is recognized that households are embedded in and supported by kinship networks, friends and neighbours. In gender research, the household is viewed in the context of gender inequality, especially in intra household resource allocation and distribution (Sen 1990; Agarwal 1994).

Conventionally, households are conceived as a social group in which the members reside in the same place, share meals and make joint or coordinated decisions over resources allocation and income pooling (Ellis 2000). This definition places emphasis on co-residence as the key attribute of the household. However, households are not static entities but restructure over time due to the exigencies of the household's life course and dynamics (Pennartz and Niehof 1999). These include birth, death, marriage, marital conflicts such as separation, divorce or abandonment, and the need for child care and care for the elderly. External factors which could affect the household dynamics include housing problems, migration due to lack of income, education and health care opportunities, job opportunities and security. Just as small nuclear households do merge into larger extended ones in times of crisis, large extended households can break down into smaller nuclear households to avoid conflict, or when children marry out and start a household of their own. Households also restructure as a result of, or in order to avert vulnerability (Moser 1996).

Many different definitions of the household have been proffered by Netting and Wilk (1984), Narayan et al. (1999), Pennartz and Niehof (1999), Netting (1993) and Clay and Schwarzweller (1991), making references to physical setting, mode of social organization, as well as a range of functions. Rudie however defines the household as a "co-residential unit, usually family-based in some way, which takes care of resources management and primary needs of its members" (Rudie 1995:228). Her definition is adopted in this study because it addresses the important dimensions of household livelihood that are relevant to this study: first, the dimension of resource management for household member's primary daily needs, and secondly, co-residence, which is assumed here as geographical proximity. A household can

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only provide for its members on a daily basis if they are within its proximity even though non-resident members can supply households with remittances for food, labour, healthcare and other needs, thus playing a role in the family sustenance and upkeep. In African cultures non-resident household members, who do not participate in the day-to-day running of the household, usually do have decision-making responsibilities. Although decisions could become freed from pre-established ties, in the extended family and kinship structures relatives outside the households frequently still play important roles in decision-making (Omari 1995). In this study, non-resident members are not considered important for the household processes because they offer almost no resources to the household and there is no relational support.

The household displays the characteristics of a social system, consisting of social relations between members, using inputs (assets and resources), processes these inputs through management and decision-making processes, and delivers outputs, which then form the provision for basic needs and care (Engberg 1990; Niehof and Price 2001). Households are also embedded within, interface with, and are shaped by other systems such as the state, markets, culture, institutions and community. Networks such as kinship networks, friends and neighbours also influence households.

Household headship

Methodological considerations informed the development of household typologies in this study. Determining the head of households can form the basis for identifying the categories of household units. However, defining the concept of headship presents some difficulties because what household heads actually do or represent are different in any given culture and they are hardly held up to scrutiny (Chant 1997). The notion of headship seems to carry the assumption that the head is the most important economic provider and is vested with certain measures of control over, and responsibility for other household members. Headship also assumes that all individuals in the household share and follow the same preferences (Quisumbing and Maluccio 2003). However, these assumptions obscure the activities, needs, and contributions of the other members of the household in relation to household livelihood management. They also obscure the nature and the extent of cooperation and conflict within the household.

Chant, in his differentiation between male and female headed households, went ahead and identified seven types of female headed households, illustrating the diversity and dynamics of female household headship in developing countries (Chant 1997). In the male-headed household one or more adult women are present while in the female headed household it is assumed that no adult men are present (Bruce and Lloyd 1997). During census and surveys a respected household member who controls the day-to-day activities of the household is normally designated 'head' and she or he is the point of reference (Bruce and Lloyd 1997).

A female-headed household may be either '*de jure*' or '*de facto*'. In '*de jure*' female-headed households a female person is the breadwinner and legally owns the household resources. These women are usually widowed, abandoned or divorced. In '*de facto*' female headed households the male spouse is absent but alive as in the case of temporary migration or a polygamous relationship where the male rotates between the households of his wives. The '*de facto*' female-headed households, are regarded as not as vulnerable as the former as they may be economically better off due to regular remittances from their migrant husbands. However, the economic activities of '*de facto*' female household heads are more often constrained by their lack of access to resources (land) that are still formally owned by the husbands (Firebaugh 1994; Niehof 2004). Thus even though certain aspects of female headship, such as greater self esteem on the part of the women, more freedom to choose an

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occasional partner, and a reduction in or elimination of physical and emotional abuse, among others, put female headship in a more positive light, different studies conducted over the last decade have yielded inconsistent conclusions. Nevertheless, Dolan (2002) argues that headship still remains a useful tool for understanding how gender identity might condition the capabilities, entitlements and subsequent opportunities of households. Households headed by women, he argues, are typically endowed with varying amounts and types of resources and capabilities that equip them to respond to changes and opportunities differently. He concludes that headship can thus provide a useful analytical device to identify how households adapt in the face of vulnerability.

Female headed households are often more cohesive due to the absence of adult male members (Dwyer and Bruce 1988), and internal resources distribution in female-headed households is more children-oriented than the male-headed household (Bruce and Lloyd 1997). In Sub-Saharan Africa, children in the female-headed households have higher school enrollment and a higher education completion rate compared to male headed households (Lloyd and Blanc 1996). In Guatemala children from female-headed households were shown by Engle (1991) to have higher nutritional status. A study of South Africa also showed that female-headed households tend to have more opportunities to diversify their livelihood portfolios (Mtshali 2002).

In many fishing communities in the Niger Delta, female-headed households have been reported to predominate, with women sustaining the livelihoods of their households despite the general belief that men head the households and have primary authority (Okome 2000; Verstralen and Isebor 1997). However, the women may well be *de facto* household heads, just holding fort for absentee, migrant husbands or relations. In my quantitative analysis, survey households were categorised into only two groups: male-headed and female-headed households.

Family and kinship

Sometimes a household is taken to be synonymous with family. This is also a matter of perspective. In the developed world the term 'family' is widely used and usually refers to the nuclear family, whereas in the developing world, 'household' is used rather than family because of the ambiguous meaning of the term family (Chant 1997). The concepts of family and household are often treated as interchangeable, even though they are not (Jelin 1991; Marsh and Arber 1992). Rudie (1995) sees the family as a dimension of the household. Whatmore (1997) sees household as one of the components of family, while Niehof (1999b) the household is the socio-economic unit that organizes livelihood.

Most households consist of kin (affinal, consanguinal, or both) but unrelated household members may also be included, sometimes as fictive kin through adoption or cultural practice (Brydon and Chant 1993). In addition, lodgers, servants, farm workers, etc. may also be considered members of the household. Sometimes households may not be visible entities in terms of buildings or sets of rooms within residential units, but can be identified only in terms of specific functions such as cooking together or the pooling of finances (Niehof 1985). In the past in Nigeria, households were of the extended family type, but at present there is a process of nuclearization going on due to socio-economic change together with declining family values and incomes.

Nigerian society has a diversity of ethnic groups, the most populous being the Hausa/Fulani, the Yorubas and Ibos, all of whose cultures are based on patrilineal kinship. Kinship norms forbid land ownership by women. Households from one kin group tend to

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cluster in one or more hamlets of a village and kinship regulates the access of households to common resource properties, land and credit, and provides social security. For a married woman, her husband's kinship group is her 'circle' (Chen 1990) and in many cultures she can also not inherit her husband's land, as only her male children can. Patrilineal kinship system does not offer a woman any security or support at any stage of her life, because especially after divorce or desertion by the husband, or even after his death, she would normally either be inherited by his relations or dispossessed of all his property after being subjected to many obnoxious widowhood practices. However, women in some ethnic minority sub-cultures such as the Efiks of Cross River State in the Niger Delta of Nigeria, have been reported to have used 'contra-power' over generations to achieve a seemingly impossible situation, whereby even married women inherit their father's and husband's properties and sometimes administer the father's estate if the woman happens to be the eldest child (Tamale 2006; Ikpe 2006).

Homestead

A household in Nigeria is usually a part of a homestead (*atung*). A homestead can consist of four to five huts (*ufok*) in a single courtyard. The residents of a homestead can be divided into households living in separate huts, belonging to the same patrilineal family and including affinal relatives (Chen 1990). In the past, due to the presence of the extended family, a homestead was treated as a household. However, the disintegration of households into nuclear families over time has lead households to be considered as part of homesteads. Sons currently move from the household within few years after marriage and form a new household in the same homestead.

In Akwa Ibom State, Nigeria, at least two terms (*ekpuk* or *nnung* and *atung*) are used to refer to household and family. *Atung* refers to the homestead, or compound, which may comprise four to five huts (*ufok*), each consisting of a household or family unit while *ekpuk* or *nnung* refers to the non-residential patrilineal kin group in a hamlet or village (Charles 1996).

In this study, the households referred to in Ibaka are not part of homesteads because many of the fish traders are immigrants whose homesteads and family compounds are in their permanent villages upland. Also, the peculiarly crowded housing situation, resulting from fish traders wanting to be as near to the beach as possible because of their fish trading activity, precludes the homestead arrangement.

Time perspective and household life course

A temporal dimension needs to be incorporated in household and livelihood analysis when attempting to capture the dynamics of change, trends, and directions of movements (Ali 2005; Ali and Niehof 2007). This study incorporates the temporal dimension by looking at the different dimensions of time, and acknowledging that while people are living their own lives they are also moving through household and historical time (Pennartz and Niehof 1999). In which case individual behaviour does not only depend on individual interests, freedom, and options but is influenced by the stage of the household life course stage, and by wider historical processes.

Chayanov (1986) argued that households pass through regular and predictable domestic cycles, from formation and expansion to fragmentation and dissolution. That is, households are formed through marriage, expand through births; fragment when children move out; and dissolve when parents die. This concept has however been widely criticized. Wilkes (1995) argues that it does not include non-family households (single people of the opposite sex who

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are not married to each other), as well as non-traditional households (never marrieds or single parents). Pennartz and Niehof (1999: 158) on the other hand argue that the concept presupposes an unwritten blue-print of the temporal patterning of the life of an individual, giving the various stages of their lives, their sequence and duration, and the transitions from one stage to another, and therefore has an inherent normative bias.

External shocks in historical time could also affect the household life cycles in ways not anticipated by Chayanov. Studies on the effect of HIV/AIDS in Tanzania, Kenya and Uganda show that mortality from AIDS generates new forms of households, with fates significantly different from those of households dissolved or fragmented at the end of the domestic cycle (Rugalema 1999; Karuhanga 2008). Rugalema argues that the breakdown of the life cycle of traditional households results in more complex forms of households than envisaged by Chayanov. Similarly, in Ibaka, Nigeria, there is no standard household life cycle because of the polygynous marriages that give rise to matrifocal households, and fisherfolk culture that engenders bi-locality. At the household level internal life cycle factors resulting from the culture affect the structure and composition of households, and their ability to respond to external changes (Evans 1989). Old asymmetries in rights and obligations, based on social characteristics such as gender, age, ethnicity, or marital status, are replaced by new asymmetries, translating into a new compromise in the ability of the household to cope with livelihood insecurity.

3.2.2 Livelihood

Chambers and Conway (1992) gave the earliest and most frequently used definition of the concept of livelihood as comprising the capabilities, assets, (stores, resources, claims and access) and activities required for a means of living. Carney, in 1998 however defined it as the interaction between assets and transforming processes and structures in the context that individuals find themselves, while Scoones (1998) came up with a definition of livelihood that tied it more explicitly to the notion of sustainability. After reviewing the concepts proposed by all the other scholars, Ellis proposed the following definition in 2000: “A livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household” (Ellis 2000). From these and other definitions there is a consensus that livelihood is about the ways and means of “making a living” and that essentially, livelihoods revolve around resources, institutions that influence access to resources, activities, and the ways the resources are used.

The concept, however, also involves a process dimension which is not always made explicit in livelihood definitions. Niehof 2004 argues that many livelihood definitions do not distinguish between the dimensions of process, activities, assets and resources, and outcomes, and therefore proposes the need to distinguish the concepts of livelihood (the material means whereby one lives) from that of livelihood generation (the processes determined by the various activities that people undertake to provide their needs) and livelihood outcomes. The concept of livelihood can thus be said to entail what people have or can claim, what they can do, given that the decisions and choices (with regard to the management and use of resources and assets) they make given existing opportunities and/or constraints, and what they achieve in the process. Such a holistic approach to livelihood needs to go beyond looking at material well-being and should also include non-material aspects of well-being (de Haan and Zoomers 2005; Long 1997). Wallman (1984) also observes that a livelihood is equally a matter of possession

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and circulation of information, the management of social relationships, the affirmation of personal significance and group identity, and that the tasks associated with meeting these obligations are as crucial to livelihoods as bread and shelter.

It is noteworthy that the livelihood framework is limited with regard to analysis of the internal dynamics of households such as gender and power relations, gender inequalities and differential access to resources by different household members. In this study, livelihood analysis was therefore combined with gender analysis during the collection of qualitative data in order to capture intra-household dynamics.

The choice of a particular mix of livelihood strategies, and adjustments made to this mix depends on such external factors as seasonality, location, and labour demand and supply. However, internal traits such as age, gender, educational level, stage in the household's life-course, and time constraints imposed by other activities play an equally important role. Livelihood approaches in gender analysis have made considerable contributions to understanding the rationale behind individual decisions and activities. They have also contributed to a fuller understanding of the productive and reproductive activities of individuals and households, and to permitting distinctions between the circumstances, goals, and outcomes that characterize different poverty groups (Grown and Sebstad 1989). By studying how people move between different goals, such as survival, stabilization, or growth in relation to external conditions and internal constraints imposed by the division of labour, the basis for individual choices for particular activities becomes clear. Three key distinctions are considered important in this respect.

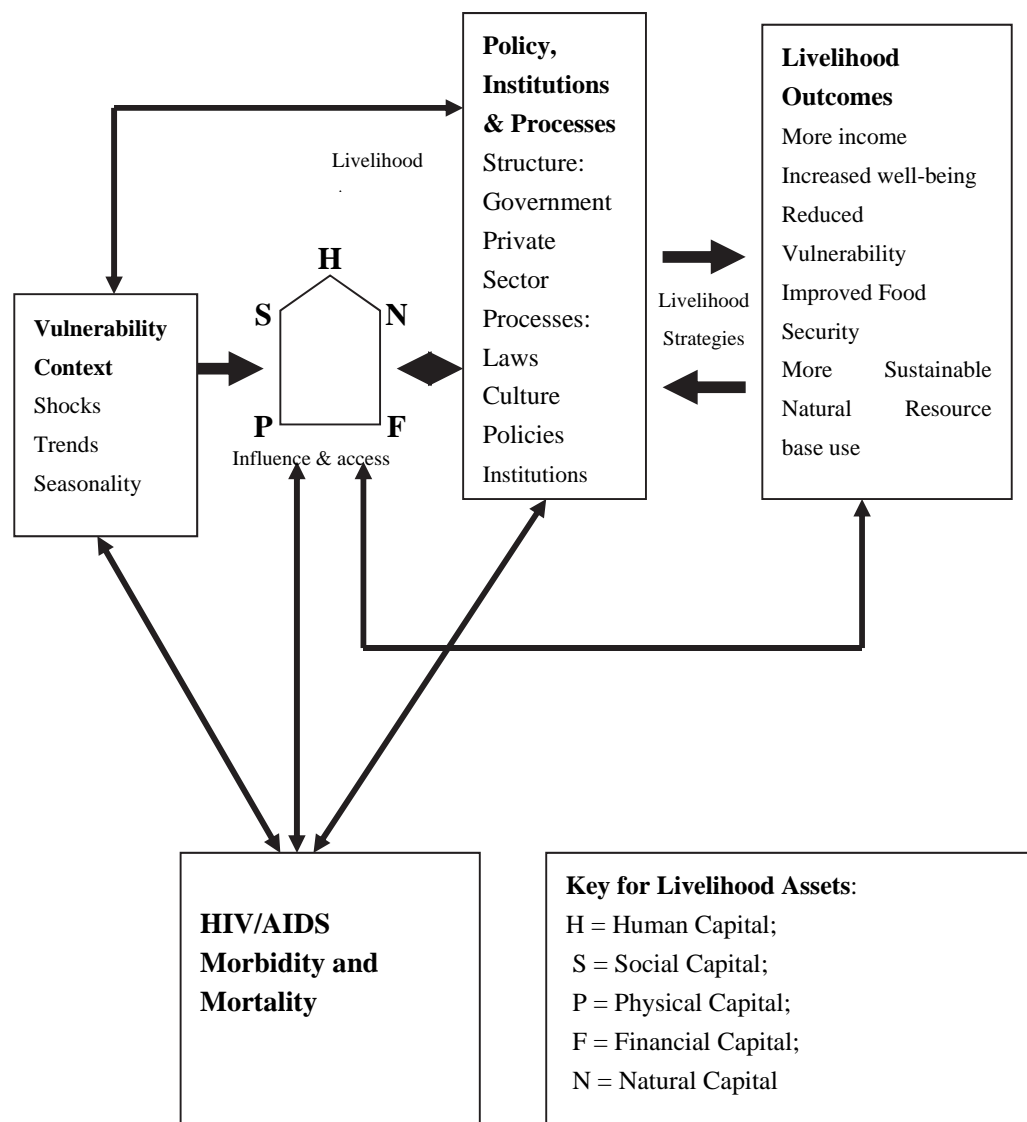
The first distinction is the initial composition of people's asset base. For example those who own livestock and land, combined with wage employment are likely to undertake activities that are different from those who have no access to land or livestock, and depend solely on wage labour to secure their well being. In many societies ownership of resources is restricted to men, leaving the women with less options for a choice of activity. Similarly, men generally earn higher incomes and are also likely to have more decision making power with regard to how this income is spent. The second distinction is the time needed to mobilize assets as well as their convertibility. While women may maintain larger social networks to fall back on in times of need, money, which men have, is much easier to easily convert into other resources. To convert social relations into a more tangible form of assets takes more time. In situations of crises there is often an immediate need for particular resources and activities, again leaving the women more vulnerable. The third distinction is that the degree of diversity in people's portfolio of activities needs to be considered. Diversity is often equated to the spreading of risks, and people with the lowest or most limited assets base, where resources are not easily convertible into other resources are likely to be among the most vulnerable, especially in times of stress (Niehof 2004).

Most studies on livelihood have one thing in common: they look at what the poor have, rather than what they do not have. They try to understand the options available to actors, some by focusing directly on people's own perception of, and strategies they adopt to overcome adverse trends and events. However, by looking at what people have rather than what they do not have, livelihood studies risk an inherent positive bias, which may lead to the risk of overlooking possible negative outcomes. Moreover, by focusing on opportunities, livelihood approaches tend to ignore the constraints people face. For example, power differentials, including gender inequalities, may restrict the potential opportunities open to people.

The Sustainable Livelihood Framework

Livelihood frameworks have been developed as tools for analysis, to capture the main elements of people’s complex livelihoods at a given time, the trajectory and dynamics of change in their livelihoods, and for a holistic interpretation of the dynamics of development and change. Among the several livelihood frameworks developed, one of the best known, most comprehensive and frequently used is the Department for International Development’s (DFID) Sustainable Livelihood Framework shown in Figure 3.1.

Figure 3.1: The Traditional Sustainable Livelihood Framework (adopted with modifications from the DFID Guidance Sheets)



Source: www.livelihoods.org/info/guidance_sheets_rtf/Sect2.rtf, downloaded May 20, 2008.

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The main elements of the livelihood framework include:

- Livelihood assets or resources: what people have and are entitled to or can access;
- The vulnerability context;
- Transforming structures and processes, also referred to as policies, institutions and processes (PIP);
- Livelihood strategies: the activities, decisions, choices people make to generate the means for household survival and long term well-being.
- Livelihood outcomes or goals: the nature and quality of life resulting from the livelihood strategies pursued.

The livelihood framework attempts to explain in a holistic manner the way poor people generate a living. The assumption is that people are endowed with and/or have access to a range of livelihood resources that they draw upon to enable them undertake a variety of activities in the process of livelihood generation. In this process people strive to meet a range of livelihood outcomes (consumption and economic, material and non-material) while at the same time responding to arising opportunities as well as unforeseen challenges and events. The decisions that guide the activities undertaken or strategies used are partly driven by people's own preferences and priorities. They are also influenced by the vulnerability context (shocks, trends, seasonality) within which the people live, which also influences access to resources. In a similar manner, the structures, institutions and processes (PIPs) that are part of the external environment also influence the type of choices individuals make to generate a livelihood (Farrington et al. 1999).

Apart from the vulnerability context, on which people have little influence, all the other arrows are bi-directional. Therefore while the PIPs have an influence on people's access to resources, services and, consequently, their strategies, people sometimes consciously engage in activities that transform the social structures and processes that shape their lives. In the same vein, the type of livelihood outcomes realized will influence future livelihood strategies and the household resource base, either through re-investment to create new resources or dis-saving to respond to crises (Bebbington 1999). However, it is important to note that while in the framework, only positive livelihood outcomes are presented, not all strategies result in positive outcomes. Prevailing environmental conditions or household dynamics may result in outcomes that fall short of what is desired.

In this study, the HIV/AIDS and the levels at which its effects could interact with the other elements of the framework have been introduced into DFID's sustainable livelihood framework because HIV/AIDS could constitute part of the vulnerability context due to its reported rising profile in fishing communities (Allison and Seeley 2004). Each element of the framework is discussed subsequently.

Assets and resources

The term asset is interchanged with capital and resource in most livelihood literature. To a large extent livelihood analysis focuses on assets status of households based on the belief that people require a range of assets to achieve desirable livelihood outcomes. Households and individuals are considered to possess assets which they seek to nurture and combine in ways that will ensure survival. A clear understanding of the configuration of the assets available to people, therefore, is an important step in livelihood analysis, in that it is an indicator of people's capacity to generate a viable livelihood at the present time and in the future, as well as

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their potential resilience to shocks and stresses in the environment (Corbett 1988). They form the basic building blocks upon which individuals are able to undertake production, engage in labour markets and participate in reciprocal exchanges with other individuals (Ellis 2000). Assets may be described as tangible and intangible, material or non-material stocks of value or claims that can be mobilized and utilized directly or indirectly, to generate a livelihood (Chambers and Conway 1992; Ellis 2000; Swift 1989; Moser 1989). They include such things as land, crops, seed, labour, knowledge, experience, skills, cattle, money, jewelry, food stocks, and social relationships. Swift (1989) distinguishes three categories of assets: investments, stores and claims. Investments include human, individual productive and collective assets. Stores include food stores, items of value, money or bank accounts while claims include reciprocal claims on other households, communities, the government, and the international community. According to Niehof and Price (2001), assets can be converted into resources when they lose their static nature of being kept for its value, without use. Therefore, assets may be seen as a form of saving or insurance that may be mobilized for production and consumption whenever the need arises. Grown and Sebstad (1989) make a distinction between resources and opportunities. The former consists of physical assets such as property, human assets such as time and skills, social assets, and collective assets such as common property or public sector entitlements. Opportunities consist of kin and friendship networks, institutional mechanisms, organizational and group membership, and partnership relations, and these constitute the social capital.

Despite the different categorizations, all authors seem to agree that people require a range of assets to achieve specific outcomes. Also, given the pivotal role of assets in livelihood generation, the way individuals balance their asset or resource acquisition and use is likely to have implications for livelihood and long-term security. To this end people try to expand, combine and transform, and exchange the different assets have access to, resulting in constantly changing asset endowments. This, however, does not automatically mean that to have more assets is to become less vulnerable or that household asset management determines vulnerability to adverse events (Moser 1989; Ellis 2000). Principally, vulnerability can be reduced when people have access to a range of different resources which, more importantly, can also be mobilized in order to form different assets combinations. Social capital plays an important role in this respect, as it can be used to access other resources (Niehof 2004). The right combination of assets depends of course on the circumstances people find themselves in, and is largely determined by the local cultural practices. Moreover, outcomes will not always be as expected as new conditions, such as violence, natural disasters or fire outbreak may interfere negatively with livelihood strategies.

For the purpose of this study, assets, categorized as capitals will be classified into five different categories: natural, physical, human, financial and social (Carney 1999; Scoones 1998), as represented in the DFID's Sustainable Livelihood Framework pentagon.

Natural capital refers to the natural resource base (land, water, and biological resources such as trees) or to agro-biodiversity. People use their surrounding agro-biodiversity to generate the means of survival. Its use is not restricted to gathering activities but may include all types of commercial extraction such as fishing, or cultivating techniques, depending on the rights of access. Natural capital is not static, and its composition is susceptible to alterations through subjection to human control. The sea, which the whole population of Ibaka depends on for their livelihood, represents the natural capital in this study.

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Physical capital refers to fixed assets brought into existence by economic production processes, including tools, machines, house, irrigation canals, electricity supply, and roads. Some of these are individually produced or owned while others qualify as public works. This distinction is important as both the origin and ownership of physical capital can have a major impact on the opportunities open to individuals. The supply of electricity makes it possible for manufacturing industries to develop. Similarly, roads make national and international trade possible, and the availability of drinking water reduces the occurrence of disease. While public goods are not under the direct control of individuals, they do have an enormous impact on diversity and viability of potential livelihood activities.

Human capital, also known as livelihood capabilities (Chambers and Conway 1992), refers to the quantity and quality of labour available to the household, including educational level, knowledge and skills, and health status (Carney 1998). Human capital is an important asset, as it is needed to make use of other types of assets. It is under constant flux as a result of internal group dynamics and external pressures. For example, in an attempt to overcome declining income and deteriorating economic situations, households are likely to respond by mobilizing additional labour, often in the form of women and sometimes children (Moser 1998). Moreover, human capital can be increased by macro-policies such as public education and health services.

Sen is the best known proponent of the concept of ‘capabilities’ (Sen 1997). Dreze and Sen use the concept to refer to the set of alternative ‘beings’ and ‘doings’ that a person can achieve with his or her economic, social, and personal characteristics (Dreze and Sen 1989). Human capital and human capability are strongly related (Sen 1997). Human capital can, by means of people’s agency, augment production possibilities. Thus seen, human capital, on the one hand, is normally defined in terms of indirect value, as for example, being able to command a price in the market, or in bringing about economic change. The more inclusive concept of human capability on the other hand, focuses on the ability of people to live meaningful and worthwhile lives, and can thus be defined both directly and indirectly by for example, people being healthy or well nourished. However, Ellis (2000) contests the use of the concept of capabilities to describe human capital, since its meaning overlaps the means and the end. The usefulness of the notion of capability lies in the fact that it serves as the means of both economic as well as social change.

Financial capital denotes the monetary resources people have access to and includes stocks of money such as savings, access to credit facilities, and flows of money such as remittances and wages. Material wealth other than money also forms part of this category. Livestock and jewelry are used in countries with high inflation. Two fundamental characteristics of this capital are its liquidity- how readily the resources can be turned into cash, and its fungibility, meaning how easily its use can be switched (Ellis 2000).

Social Capital concepts were developed by scholars like Bourdieu, Coleman, and Putnam. It refers to the information, trust, and norms of reciprocity inherent to an actor’s social networks, which, if one is able to mobilize, can facilitate mutually beneficial collective action (Woolcock 1998). The importance of social capital in building and maintaining the trust necessary for social cohesion and change has long been recognized by anthropologists and since the 1990s it has become a key concept in poverty and development studies, adopted by sociologists, economists, practitioners, and governments alike (Harriss and de Renzio 1997). Some equate it with personalized networks and connections based on age or kinship groups, and relations of

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trust and mutual support within and beyond the local community (Coleman 1988, 1990) while others propose a link with more formal manifestations of community organizations such as cooperatives, farmer associations, and village committees, or with the entire institutional framework of a society (Putnam 1993a; Portes 1995). Bourdieu's concept of social capital puts the emphasis on conflicts and the power function (social relations that increase the ability of an actor to advance her/his interests). Social positions and the division of economic, cultural and social resources in general are legitimized with the help of symbolic capital. From the Bourdieuan perspective, social capital becomes a resource in the social struggles that are carried out in different social arenas or fields. For example, the problem of trust can now be dealt with as a part of the symbolic struggle (or the absence of struggles) in society. Trust as a potential component of symbolic capital can be exploited in the practice of symbolic power and symbolic exchange (Bourdieu 1985).

Woolcock (1998) proposes four dimensions to social capital. Firstly, he discerns strong ties of a predominantly traditional, informal, and ascriptive nature, which are based on kinship, ethnicity and religion existing between primary groups such as family members and neighbours. In line with what Putnam (1993b) calls 'bonding social capital', these are often able to survive conflict, or are re-enforced by conflict, thus forming the first safety net for basic survival (Harvey 1997). Secondly, Woolcock discerns weak ties between communities which are typically more net-worked and associational, bringing people together and connecting those who would normally not interact. Weak ties or 'bridging social capital', as Putnam (1993b) puts it, bridge differences in kinship, ethnicity, religion, and give people the strategic advantage to move ahead. These two dimensions fall into what Putnam (1993a) categorized as 'horizontal ties' and contrast with 'vertical ties'. His third dimension is expressed in more vertical, formal institutions at the macro level, encompassing "state institutions and their effectiveness and ability to function, as well as the legal environment and social norms" (Colletta and Cullen 2007). Vertical ties are characterised by hierarchical and unequal power distribution among members. In his fourth dimension, state-community interactions reflect how and to what extent state institutions interact with the community.

Social capital can be obtained in different ways. Part of one's social capital is inherited, part is assigned according to one's position in society, and part has to be created through deliberate efforts. Niehof (2004) states that access to other key resources can be obtained through social capital, but that also bonds of friendship and moral support can be created. The latter implies that social capital, like its human counterpart, has not only an instrumental, but also an intrinsic value. Moreover, social capital is a productive resource that contrary to most other capitals increases through use. Finally, social capital is also a relational concept, since it is embedded in societal structures and norms (Narayan 1997; Portes 1998).

In rural Africa, households devote considerable time and money to personalized networks, entailing complex systems of rights and obligations, most often informal in nature (Berry 1989). Potentially, these networks are critical in accessing other types of capital, such as natural (land), financial (credit), and human (labour), thus offering spatially diverse livelihood opportunities and support. Also, even though the enabling potential of social capital comes at a cost, since networks need to be nurtured and investments must be made to guarantee support, there is no guarantee that investments made in the past will bear fruit in the future. For example, Nombo (2007) argues that the stigma attached to HIV and AIDS in Tanzania limits the support of neighbours, friends, and the wider community. Moreover, she found out that as a result of acute and widespread poverty, families are too often over-burdened with their own problems to be able to help out kin, as interpersonal social networks were no longer able to provide sufficient support to buffer the HIV/AIDS crisis. Indeed changes in livelihood

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conditions over time may make participants in relationships in which people have invested in the past unable or unwilling to reciprocate in the future. Thus, due to structural and cultural barriers in the community, investors may find themselves unable to exploit their potential. Also, Berry (1993) points out that impoverishment and instability often affect whole families and communities, undermining their ability to provide security for any – let alone all – of their members. This implies that there are limits to the use of social capital in a situation of shared poverty or shared crisis.

It is clear from the above discussion that social capital is the least tangible of the five assets mentioned. It is very difficult to find appropriate indicators for norms such as trust, which is why social capital is often inferred on the basis of membership of organizations and groups. Thus Putnam, one of the most influential proponents of the concept, measures social capital primarily by counting civic organizations (Putnam 1993a), while Narayan and Pritchett (1999) look primarily at the quantity and quality of associational life. Others consider trust to be derived from social ties as well as reciprocity, essential preconditions for successful claims (Moser 1998).

Social capital, more than other assets, is vitally important for determining access to resources (Berry, 1989), since it enhances access to other actors governed by the logics of state, market, and civil society and could best be conceptualized as an asset, access and an outcome of social relations between actors (people, organizations, and institutions). Serageldin and Grootaert (2000) also argue that social capital can have an impact on development outcomes, including growth, equity and poverty alleviation, which leads to sustainable production and permanent income for achieving consumption smoothing, leading to food security.

In Nigeria and other parts of Africa, the *osusu* group is an important source of social capital. It is the rotating savings and credit association (ROSCAs) which is widely distributed in developing countries, and is presented in various forms and functions. It has been found to be relatively durable in situations of both high financial insecurity and prospering industrialization (Ardener 1995). Though it can be placed within a broad set of institutions which provide opportunities for savings, credit and mutual aid, Shirley Ardener (1995) gives it a more discreetly isolated and basic definition as: “an association formed upon a core of participants who make regular contributions to a fund which is given in whole or in part to each contributor in turn”.

This definition allows the inclusion of a wide variety of groups, with different levels of complexity while at the same time excluding the savings and credit institutions which do not embody the principle of rotation. ROSCAs proliferate because so many people choose to use them. The prediction by Geertz (1962) that they were useful at the intermediate stage of development, because people did not have access to formal credit, and would fade away as more developed financial institutions replaced them has been contested by Ardener (1964). According to her, where in some places it may have become less important compared to other credit institutions, in other places their numbers have grown and they have spread more vigorously. Women have particularly adopted the ROSCAs as their lifeline because of operating especially in financial climates and cultural environments where other credit systems have failed them, due to the inability or refusal of the creditors to fulfil their obligations to them (Fofana 2010). In Nigeria, there is a strong evidence of the prevalence of the *osusu* and current economic activities at most levels depend heavily on participation in the ROSCAs in a variety of forms and scales (Geertz 1962; Wright 1999; Aforka 1990).

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Besley et al. (1993) rightly suggest that ROSCAs constitute one of a number of institutions whose existence is pervasive in developing economics. What has made it a pervasive as well as an enduring institution is its simple and intuitive rules which make very little demand on the intellectual capability of the participants, which levels the playing field for participants from all backgrounds and intellectual capabilities. In its pure form, a ROSCA is a group of people contributing a pre-agreed amount to a saving pot each period. The pot accumulated each period is then allocated to a winner, who is determined either randomly or by a bidding process. The ROSCA continues with the winner of the pot excluded from receiving the pot in the future. It terminates after each member has received the pot once. The obvious advantage of the ROSCA is that it gives each member access to other members' savings. For instance, if a member desires to acquire an indivisible good by joining the ROSCA, she can expect to attain it earlier than if she had chosen to save all by herself (Besley et al. 1993). The obvious limitation of a ROSCA is that the saving pot is only as deep as the pockets of its members. In its pure form, even though the ROSCA is an invaluable traditional institution that allows the poor to smooth their consumption, its scope as a tool for alleviating poverty remains severely constrained.

The five categories of capitals are not mutually exclusive as some aspects may belong in different categories. Land, for example which is a productive resource, is categorized under natural capital while it is equally a cultural and political resource. Also, there are assets that do not fit into any of the five categories. Bebbington (1999), for example has included "cultural capital" as a sixth capital. While culture may be subsumed under social capital, the concept of social capital does not fully take into account all aspects of culture. Gudeman (1986) for example, argues that the process of livelihood construction must be regarded as culturally modelled, implying that culture plays an important role in shaping people's choices and livelihood options. Therefore, submerging culture under social capital only looks at culture as a resource, and fails to take into consideration other aspects of culture (religion, norms, stigma, status) that define the cultural context and have structural effects (Bronson et al. 2007; Müller 2003). Moreover, as Müller further argues, culture is a key feature in determining individual and group behaviour, in the context of HIV/AIDS that is said to be transmitted sexually. It is therefore essential to analysis, to find a flexible definition for livelihood assets which capture the full meaning of these assets at the same time.

Time is another variable that does not fit into any of the five categories. As Engberg (1990) observed: "It cannot be accumulated or increased, but the way it is used can be altered". If we consider human capital, for example, educational status, skills and experience change with time. While one's knowledge and experience increase with age, the amount of labour output decreases. Social capital may also grow or diminish with time. An illustration is in a situation of HIV/AIDS where a household's access to social capital may depend on the social networks of the household head and diminishes or is completely inaccessible in the event of his or her death. Time is therefore an important element in understanding livelihoods given the temporal dimension of the household life cycle, livelihood strategies, decision making, asset creation and resource use. The household size and composition thus reflect the phase in the life course, which in turn determines their needs, labour potential, and to a great extent their asset base and livelihood strategies.

Another type of time is the seasonal time, which influences both agriculture and fishery activities. During times of peak labour activity when availability of household labour is most crucial, this will have a bearing on the way labour and other assets are deployed across different activities. Time use is also gendered. The gender division of labour also means that different individuals in the households will have different amount of time at their disposal,

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which too may have implications depending on the extent of involvement in different productive activities. Moreover, cultural norms and values as well as gender notions change with time. Time, therefore, is an integral part of livelihood generation and so the economic, social, political and historical contexts for livelihood strategies need to be given a temporal perspective (Ali 2005), for an improved asset analysis model.

Also, the way the five ‘capitals’ are presented gives an impression that assets are one-dimensional. This leads to a failure to capture other dimensions associated with an asset such as its status or quality, its location, or its substitutability. Also, it fails to highlight the multi-functional nature of assets. Empirical reality shows that households vary in their asset base at different points in time and the same asset may have different uses for different households in a community, or individuals in the same household, therefore assets play different functions in people’s livelihoods. In the words of Bebbington:

“A person’s assets, such as land, are not merely means with which he or she makes a living: they also give meaning to the person’s world. Assets are not simply resources that people use in building livelihoods: they are assets that give them the capability to be and to act. Assets should not be understood as things that allow survival, adaptation and poverty alleviation: they are also the basis of agents’ power to act and reproduce, challenge or change the rules that govern the control, use and transformation of resources”.

Bebbington (1999: 2022)

It is important to also note that this holistic approach to assets analysis, while desirable, introduces challenges of capturing different capitals in the same terms and on the same scale to enable useful comparisons be made between households and communities.

Finally, the word ‘capital’ has economic connotations which gives the impression that all assets or resources are like commodities purchased or sold off and that peoples’ activities are entirely oriented towards material gain (Arce and Fisher 2003; Hebinck and Bourdillon 2001; Whitehead 2002). Although material gains are central and important to the notion of livelihood generation, livelihood strategies are not always defined in economic terms but also include other aspects of people’s lives that are cultural, non-material and non-commoditized. Bebbington (1999: 2034) observes that there is “a conjunction between place and reproduction of cultural practices that are important inputs to and outputs of livelihood strategies”. It should also be noted that not all assets are capital stocks that one would expect to yield flows of benefits over time. However, even though the term and its classification into ‘five vital’ assets could be misleading, they are continually used in livelihood literature.

This study has selected several assets that are of importance to the performance of the fish traders in Ibaka. Thus in Chapters 5, 6 and 7, the following proxy variables are used for the selected capitals:

- Human capital: age, education and marital status;
- For financial capital: working capital, income and savings¹. The amount of working capital was derived from the total transactions calculated over a period, the amount of money made from fish sold over a period was substituted for gross income, while the weekly or monthly contributions to *osusu* groups served as proxy for savings;
- For physical capital: type of housing, and equipment owned;

¹ Due to the reluctance of the respondents to discuss these issues in public, other proxy variables were substituted.

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- For social capital: the membership of *osusu* groups, voluntary organizations and groups as well as interpersonal networks (of families, friends, neighbours, customers and clients). Capturing structural social capital (such as density and diversity of networks) was difficult. Trust is also used as a proxy variable for cognitive social capital (subjective notions about, and experiences with behaviour requiring trust).

In the quantitative component of this research, borrowing money without collateral was also used as a proxy for social capital. In the qualitative research the importance of social capital as developing over time and as used in household strategies, decision making processes, the fish trade, as well as the limits to the use of social capital was noted. This is embedded in the historical relations in the cultural and institutional environments, which have shaped the access of the fish traders to these resources, and affected their performance, and on the meaning the traders themselves attach to these assets.

Human agency

Humans are a critical resource to households, and human resources represent the skills, knowledge, physical power and strength, and good health that together enable people to pursue different forms of livelihood strategies and achieve their livelihood objectives (DFID 2000). They mobilize these resources and utilize them for the eventual conversion into various livelihood outcomes. Resources are used directly by people for livelihood generation, turning them into functions, such as, earning a living, gaining respect, social and material advancement, enjoying security, and creating other resources. However, the availability, amount, and type of human resource (labour) affects the type of occupations pursued by household members and consequently, on the kind of livelihood generated.

A number of intra- and inter-household dynamics affect the supply of household labour. At the household level these include gender, age, education, household size, skills level, health status (Kollmair and Gamper 2002). Household labour, which requires time, investment in skills and education, and experience to build up can also be lost when a household member becomes ill, handicapped, dies or relocates. A lack of, or limited availability of labour in the household is therefore bound to have significant implications for household self sufficiency and survival.

According to Murray (2000), a livelihoods approach focuses on the agency and the capability of actors, on strengths rather than on the needs. The capabilities approach, which emphasizes what people are capable of achieving and becoming (Sen 1985; Dreze and Sen 1989) is therefore important to the notion of livelihood generation. Agency implies recognizing people's capacity to make choices and take control over their actions, using their knowledge, skills and good health to improve their situation. Besides these, their capabilities also entail the wealth of experience acquired over the years, the ability to negotiate, create and maintain social networks, as well as the potential to improve these attributes. However, even though people have agency, they do not have absolute control over all the factors that impinge on their livelihood. Moreover, different individuals can only influence environmental factors and processes to varying degrees or extents.

Access to resources

An analysis of household's or community's resource status needs to take into consideration whether the individuals have access to and can use the resources, which of the individuals or

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groups have access and which ones do not, how they access the resources, and how they put them to use. As contemporary literature stresses, for women particularly, it is not the issue of ownership that is usually at stake but rather that of access to a given resource. Therefore while quite some resources may exist at the household and community level, individual access to them for livelihood generation may not be possible. Niehof and Price (2001) distinguish resources according to the level at which they are accessible, owned or used, whether at the individual or collective level. Human resources such as skills are accessible at the individual level, while resources such as land, income, labour, and biodiversity are accessible at either the household or community level or both. Community level resources, particularly natural resources, can only be accessed through entitlements (Swift 1989).

Chambers and Conway (1992: 8) define access as “the opportunity in practice to use a resource store or service or to obtain information, material, technology, employment, food or income”. Access to resources is a prerequisite to the ability to use them and is often negotiated (Bebbington 1999). The relationship between the rules and norms and rights of access to certain resources is discussed in the entitlement literature. Sen (1981: 3) defines entitlements as “the set of different alternative commodity bundles that the person can acquire and the effective command and control over those bundles”. Start and Johnson (2004), in their analysis of the differences between Sen’s entitlement concept and other micro-economic models of livelihood, observe that “very different sets of entitlements can be returned from similar initial endowments, the explanation lying in the processes of access, production, transformation and exchange”.

According to Chambers and Conway (1992), claims and access are part of social capital. Niehof (2004) points out that social relationships possess important liaison functions in the availability or usability of other assets and resources. Individuals and groups of people possess different potential access to resources and both assets and access are gendered. For example, women have fewer rights than men regarding household and community resources, and agricultural services (Pena et al. 1996). They have limited access to land (Doss 1999), and their plots are often less fertile and further away from the homestead (Alwang and Siegel 1994; Barnes 1983; Jackson 1985). They also face more institutional biases than men in accessing training and information (Baser 1988; Saito and Weidemann 1990), and technological inputs (Gladwin et al. 1997). Similarly, widow- and child-headed households may have more limited access to community resources than male-headed households, given that they usually have a low social standing and may be excluded from community networks. Moreover, while individual access to resources is influenced by the power relations within the household, it is important to acknowledge that access to other actors is also dependent on processes of social exclusion, where groups “...try to monopolise specific opportunities to their own advantage. They use property relations or certain social and psychological characteristics such as race, gender, origin, or religion to legitimize this fencing-in of opportunities. Social exclusion and poverty are then the consequences of social closure, a form of collective social action which gives rise to social categories of eligibles and ineligibles” (de Haan and Zoomers 2005: 33-34). Since the processes of social inclusion or exclusion are directly linked to the notion of access, the analysis of livelihood generation should include an analysis of power relations.

In order to better understand the way decisions concerning livelihood strategies are made, we need to take a closer look at intra-household dynamics. Different theoretical notions, like the rational choice and bargaining approaches have been advanced to help explain intra-household dynamics. In the bargaining households, members normally contend and exchange assets to gain their individual goals (Manser and Brown 1997) while in the rational choice approach members consider individual preferences and available options only (Abell 1992;

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Pennartz and Niehof 1999). According to Abell (1996), it is only individuals who ultimately take actions, and individual actions and social actions are optimally chosen. These individual actions and social actions are taken by the individuals who are entirely concerned with their own welfare.

While it is not the most common sociological approach, the rational choice approach has active proponents who have developed many interesting ideas and many testable hypotheses. Three assumptions are made by the proponents of rational choice approach. These are optimality, individualism and self-regard. Optimality assumes that actions of individuals are optimally chosen given the preferences of the individual and given the opportunities or constraints the individual faces. That is, the individual as a social actor attempts to achieve the best for him or herself, given his or her circumstances. Abell (1996) defines optimality as taking place when no other course of social action would be preferred by the individual over the chosen course of action. This does not imply that the course the actor adopts is the best in terms of some objective, outside judgment. In considering individualism, it is individuals who ultimately take actions. These individual social actions are the ultimate sources of larger social outcomes. Self-regard assumes that the actions of the individual are concerned entirely with his or her own welfare.

Currently, the rational choice approach is the most popular one for studying household decision-making. However, Pennartz and Niehof (1999) argue that such an approach leads to a reductionist view on the everyday life of family households. According to them, aspects such as household strategies, household organization, power relations and embeddedness in opportunity structures, the temporal perspective, and moral motivations have to be taken into consideration in order to fully understand the household decision-making process.

The bargaining approach forms a bridge between the rational choice approach and transaction. Originally developed in the field of economic theory, the bargaining approach looks at households from a 'collective models' approach. It holds that those who are in a stronger fallback position in the event that the cooperation breaks down are in a better position to realize their own preferences than those with weaker fallback positions. The bargaining approach assumes that individuals possess different needs and preferences and also that individuals within the household are aware that cooperation rather than conflict will often yield better results for each member. To find a balance between self interest and cooperation therefore, individuals have to negotiate about desired outcomes and the pathways expected to lead to these outcomes. The outcomes of bargaining processes depend on several factors: the breakdown wellbeing response, also known as the fallback position, the perceived interest response, and the perceived contribution response (Sen 1990).

The breakdown wellbeing response is related to the strength of the individuals in the bargaining process and deals with an individual's fallback position in the event that cooperation ceases or fails. The stronger this fallback position, the higher the ability of the individual to secure a favourable outcome. For example, women who earn and control their own income are often in a better position to make decisions on their own, or to contest those of other household members, than are those who depend on the income of their relatives. Agarwal (1994) mentions five interrelated factors that may influence a person's fallback position in relation to subsistence needs like food and healthcare, both within and outside the household. These are private ownership and control over assets, access to employment and other income-earning means, access to communal resources, access to traditional external social support systems, and access to support from the state or NGOs. As different household members will have varying degrees of access to each of these factors mentioned, some will be in stronger

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positions than others, and thus possess more bargaining power. Differences in access to any of these are the result of organizing principles in society, such as gender, age, class or ethnicity.

Sen (1990) assigns perception a central role in the bargaining process and argues that if a woman undervalues herself, her bargaining position will be weaker and she may likely accept inferior conditions. He sub-divides the notion of perception into perceived interest response, which takes into consideration in whose interest the bargaining takes place, and the perceived contribution response. If perceived interest does not take into account an individual's own wellbeing, he or she may end up in a situation worse than before entering into the bargaining process. Increasing someone's perceived interest will likewise increase his or her bargaining power. Women are often assumed to be giving priority to the wellbeing of their children and less value to their own. For example, rather than investing in their own education or health, resources are used to increase the educational level and enhancing the health of their children.

However, the assumption that many women consider others' wellbeing above their own is debatable (Agarwal 1994). Many women appear to conform to this assumption but to determine whether this is so, more attention needs to be paid to the forms of overt and covert resistance that women employ in everyday life. In putting the interest of others above their own the question remains if it is still not also in their best interest. Koster (1998) reported that in India women were more likely to outlive their husbands and so were highly dependent on their in-laws, brothers, and sons during widowhood. Ensuring that the interests of the in-laws, brothers, and sons are satisfactorily dealt with in the earlier years becomes a survival strategy, for the women may benefit from their support later in life when they will need it most.

Finally, there is the perceived contribution response. Women contribute a lot to the household by looking after children, cleaning, cultivating crops, collecting firewood and water, cooking, buying and selling goods, even though they themselves and others do not acknowledge all that work as substantially contributing to the wellbeing of the household. Women's work is often undervalued or ignored especially when it is not rewarded in monetary terms. Women find it difficult to specify their incomes because of its irregularity, if they earn any, and husbands normally minimize their wives' incomes. Women are also often unaware of their husbands' incomes and spending, and are often kept deliberately uninformed (Safilios-Rothschild 1987). Increasing someone's perceived contributions also increases the person's bargaining power. However, Agarwal (1994) makes a convincing case when she states that it might not be sufficient to simply look at perceived contributions in relation to the legitimacy of women's claims in the bargaining process as the perceived needs of women should be considered simultaneously. Where women's needs are considered less important than those of other household members, it may negatively influence their relative strength in the bargaining process.

The major problem with the bargaining theory is that it treats bargaining rules as fixed whereas in reality, social norms and rules adapt and change in response to evolving circumstances. Individuals are continuously confronted with this flux and are themselves, consciously or not, part of the process in which social norms are renegotiated and redefined. Moreover, as Jaspars and Shoham (2002) point out, some transfers, especially in situations of chronic conflict and political instability, are illegal acts that are not easily accommodated by the bargaining approach. Another problem is that 'bargaining' is an economic concept while many of the decisions people take are not economic in nature.

The bargaining approach is not only useful to examine intra-household relationships, but may also be used to examine inter-household relationships and communities. When used to examine household livelihood organization, the approach has the advantage that it focuses on

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conflicting interests, values, and claims, and it shows how this ‘political arena of livelihood’ can be analysed.

3.2.3 Policies, Institutions and Processes (PIPs)

Policy, institutions and processes (PIPs) are only a dimension of the Sustainable Livelihood Framework but cover a vast range of areas concerned with the policies and institutions that determine the social and institutional context within which livelihoods are constructed, and the processes of change in these policies and institutions (Hobley 2001). PIPs shape the types of livelihood strategies that are available and the way in which assets may be used or transferred between different forms. The so-called ‘PIPs Box’ represents all those factors that influence decision making at any scale. PIPs include the nature of political organizations and their policies, formal and informal rules of access to resources and the influence of local culture and norms (Lewins 2004).

In this context therefore, Leach et al. (1997) recommended the recognition of institutions in the broadest possible sense as representing regularised practices or patterns of behaviour structured by rules and norms of society, making organisations just one sub-set of this wider institutional setting. The nature and functions of institutions are key in influencing the way in which livelihood opportunities may (or may not) manifest themselves to the poor. According to Davies (1997) and Scoones (1998) institutions are the social cement which link stakeholders to access to capital of different kinds to the means of exercising power and so define the gateways through which they pass on the route to positive or negative (livelihoods) adaptation. This broad interpretation of the institution automatically embodies the processes within PIPs defined as the way in which individuals act or are impelled to behave in response to social or economic incentives.

Language, beliefs, values and theories about how the social and natural world ‘works’ are also institutions. Property rights, taxation, education and research institutes, laws, parliaments, courts, and even the way people greet one another are all examples of institutions (Birner 2006). Markets are the result of many different institutions interacting to enable the exchange of goods and services between buyers and sellers. Institutions include formal and informal “rules”, regular patterns of behaviour and various forms of organization across the state, business sector and civil society. Formalised institutions include laws and regulations, and government organizations while others, such as social customs, networks and trading relations are informal (Vermeulen et al. 2008). According to Vermeulen et al. (2008), markets and the functioning of value chains, depend on economic win-win situations and trust, while trust, which is either created informally between those doing business, or established through formalized contracts upheld in law, is made possible by institutions. In traditional village markets, like in Ibaka, the exchange between buyer and seller is direct and based largely on informal mechanisms of trust.

Institutions create the incentives (positive and negative) for individuals and groups to behave in particular ways and individuals and organizations often have to make decisions in the context of different and conflicting institutional influences (Woodhill 2008). Processes may grant or deny access to certain assets, for example in the small scale fisheries in West Africa where traditional access rights can influence livelihood outcomes (Béné 2004).

Although PIPs represent the political space in which individuals find themselves this environment is also very dynamic. The current interest in decentralization, co-management and the inclusion of local stakeholder groups for improved natural resource management partly

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stems from a belief that the 'rules of the game' (often used as a shorthand definition of institutions) might be shaped and influenced by the poor themselves. At the local level both government and non-governmental organizations have established formal institutions to represent the poor within agriculture, forestry and fisheries projects, but the most effective and sustainable initiatives may be those that recognize that informal institutions, represented as new relations and linkages, must also develop to accompany the hard machinery of new management structures (Lewins 2004). This process may be promoted by specific activities facilitated by extension workers or through directed attempts at consensus building but the design of new institutions will be critical. Supporting the argument, Röling (1994) confirms that the best imposed structures are also those that allow processes for consensual management and new power relations to emerge. At the meso- and macro-levels, PIPs in the form of policy and organizations play a key role because it is the meso-level and the way in which policy and planning actually articulates with the lives of local stakeholders that may provide the greatest opportunity for the improved delivery and performance of pro-poor fisheries policy (Lewins 2004).

3.2.4 The role of PIPs in sustainable livelihoods

Early livelihood analysis placed the emphasis on quantifying the assets at the disposal of the individual or community that shape the 'assets pentagon', and boosting the quality or accessibility of those assets that were constraining people's opportunities to sustainable livelihoods was thought to be the solution. However, PIPs can positively or negatively influence the way in which individuals might exploit these assets and enjoy gains from them. The usefulness of capital assets is situation-specific and the assets of the poor must be situated within an appropriate and enabling PIP environment in order to support sustainable livelihoods. For example, institutions such as local markets and modes of production and distribution will determine how capital assets are utilized and affect their relevance to the poor. Similarly, cultural norms may greatly influence the potential economic roles and political influence or 'voice' of the poor, as determined by gender, age, or ethnicity. Lastly, the Sustainable Livelihood Framework assumes that capital assets may be transferable from one form into another and that PIPs play a critical role influencing this process (Lewins 2004; North 1990).

Livelihoods are shaped by several socio-economic, political, cultural, institutional and environmental factors and a clear understanding of the specific environmental context in which people live is fundamental to the understanding of livelihoods. As Beall and Kanji (1999) contend, the value of livelihood diminishes if these factors are ignored. The environment of which households are part is mediated by a number of factors and processes, some exogenous and others endogenous (Ellis 2000). These factors and processes are dynamic and operate at global, regional, national and local levels and comprise *the social*, which involves changing relationships and the structure of kinship, gender, and age; *the cultural*, which relates to custom, religion and other beliefs, local and external, customary laws such as inheritance and land tenure; *the economic*, which involves investments, markets, prices and production technologies; *the political*, which covers governance (local/state), policies and state laws, wars and conflict; *the institutional*, which covers laws, resources and activities of the institutions; and the *natural environment* which includes the environmental resources/assets, and state and cultural laws governing access to these resources.

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Diverse structures and institutions, working in combination, thus shape the ways in which different people access, use and derive wellbeing. The DFID framework distinguishes between the vulnerability context, over which people have limited or no control, and the PIPs, which are the result of historical processes in which people can potentially participate. The vulnerability context and the PIPs not only interact with the resource base of the households and individuals, but also with each other. People also affect the vulnerability context directly or indirectly by changing the PIP environment which in turn can influence the vulnerability context, even though their control over the environment may seem limited (Brons et al. 2007).

In the DFID livelihood framework, policies, institutions and processes are the most important factors. They comprise a diverse and complex range of issues associated with policies, social relations and processes as well as power, authority and participation (Ellis, 2000), and are transforming structures and processes. The structures constitute the organization - both private and public - that formulate and implement policy and legislation, deliver services, purchase, trade, and perform many functions that affect livelihoods. The processes determine the way in which structures and individuals operate and interact. The processes are defined by Ellis (2000) as comprising both social relations (gender, caste, class, age, ethnicity, and religion) and institutions (formal rules and conventions and informal codes of behaviour).

The importance of PIPs cannot be over-emphasised as they influence the availability of resources and what individuals and households can do with such resources to shape their livelihoods, influence access to various types of resources, livelihood strategies, decision-making bodies and sources of influence, the terms of exchange between different kinds of resources, as well as returns (economic and otherwise) to any given livelihood strategy. Therefore, PIPs can offer opportunities that households can draw upon to enhance their livelihood security or may create circumstances that limit peoples choices and chances for survival. For example, government's investment in telecommunications and transportation infrastructures influences the availability of information, access to markets, the cost and returns on investment, while macro-economic policies are likely to affect the rate of resource accumulation given their effects on input and output prices, as well as the type of available investment opportunities, their profitability and riskiness. Furthermore, institutions and cultural norms that regulate access to common resources also influence the individuals or groups which will be able to access them.

The lack of, or non-implementation of relevant policies, and the absence of appropriate structures (for example agricultural extension organizations) leads to increased vulnerability of people. This has been found to be particularly so in remote rural communities where services such as agricultural and fisheries extension, HIV/AIDS testing and counseling, as well as physical and market infrastructure, among others, are lacking. Thus understanding the relationship between the PIPs and the way they interact with the other elements of the framework, allows the identification of constraints and opportunities that influence access to livelihood resources, and the groups and individuals who are either advantaged or marginalized by the existing structures and processes. The livelihood framework has however been criticized for having a micro bias whereas the discussion on the PIPs emphasize micro-macro linkages or relationships (Brocklesby and Fisher 2003).

The vulnerability context or the living environment is relevant in this study because it impacts on people's resources and livelihood options. Access to assets, and the conversion of a set of assets into a livelihood strategy, is also influenced by the vulnerability context. The vulnerability context can be divided analytically into fortuitous or adverse trends such as climatic changes, demographic changes, migration, technological changes, price fluctuations, macro-policies, national, regional and world economic trends, and shocks such as rainfall

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variability, flood, drought, death, fire disaster, HIV/AIDS, crop/animal disease and outbreaks of pests. Shocks affect the technical feasibility of potential investments in agriculture while floods or civil conflicts directly erode or destroy people's resource base and accordingly the livelihood strategies chosen. Trends are phenomena which are typically predictable and variously continuous or cyclical in nature, while shocks are impacts which are typically sudden, unpredictable, and quite often traumatic. All the trends and shocks listed contribute to the vulnerability of people but seasonality, which affects prices, employment opportunities and food availability is one of the greatest and most enduring sources of hardship for poor people in developing countries. It should be noted that the vulnerability context directly affects the assets base and options open to people to pursue specific livelihood outcomes. Finally, even though people seem to be almost helpless over the control of their environment, they can also affect the vulnerability context directly or indirectly, by changing the PIP environment, which in turn can influence the vulnerability context.

3.2.5 Culture

Culture is a complicated phenomenon to understand because it is both distinct from but clearly associated with society. Different definitions of culture reflect different theories or understandings, making it difficult to pin down the concept. Culture "includes stories, media, ideas, works of art, religious practices, fashions, rituals, specialized knowledge, but also norms, values, beliefs, or expressive symbols. Roughly, norms are the way people behave in a given society, values are what they hold dear, beliefs are how they think the universe operates, and expressive symbols are representations, often representations of social norms, values, and beliefs themselves" (Butler 2008: 3). To summarize, culture encompasses objects and symbols, the meaning given to those objects and symbols, and the norms, values, and beliefs that pervade social life. The definition is understood to include two elements - that which differentiates one group or society from others and the concept of acquired or learned behaviour (Butler 2008).

As is the case with most elements of social life, culture is relatively stable (thus it is functional in the structural-functionalist sense) but at the same time contested (in the conflict sense). Culture is dynamic, especially in our modern world in which different cultures are in constant contact with each other.

Several definitions have been proffered for culture. Garland defines it as "the core values of those who share an identity with a place, a religion or membership in an ethnic or class group" (Garland 1999: 84), while Falicov provides a rather complex definition of culture as derived from: "simultaneous membership and participation in a multiplicity of contexts, such as rural, urban or sub-urban setting; language, age, gender, cohort, family configuration, race, ethnicity, religion, nationality, socioeconomic status, employment, education, occupation, sexual orientation, political ideology, migration and stage of acculturation (Falicov 1995: 375). Garland's definition of culture is used in this study and the various aspects are explained below.

Core Values answer basic human questions- the relationship of individuals and groups, the meaning of time, the natural world, human nature, and the spiritual dimension of life. These values find expression in the preferred strategies for handling daily expectations and challenges. Core values explain why families, communities, men and women behave the way they do. Core values are never expressed but can be inferred from observation of how families

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or communities invests its energies and other resources, gender roles and family coping strategies (Garland 1994).

Place may refer to a nation, region (Niger Delta) or a community like Ibaka. Living in a place carries with it certain life strategies that need to be learnt for belonging, for survival or simply for living well. For example what may be acceptable in some places may turn out to be totally unacceptable in others.

Religion is the social expression of an organised and shared belief system. It almost always is far more complex than faith itself – Christian, Muslim- and even than religion sub-categories of denomination- Presbyterian, Catholic. Within denominations there are often parties and sub-groups- moderates and conservatives, for example. These are not only religious groups; they are also cultural enclaves of values and beliefs about living rightly in community and in family.

Ethnicity refers to minority groups that are often thought of as subgroups of race, although the boundaries between racial groups are often fuzzier than that between ethnic groups. Every family belongs to at least one ethnic group, but ethnic group status is far more significant for minority populations than for the dominant population group.

Social Norms also form an aspect of culture. A social norm is a rule, an expectation of how things are “supposed” to occur or be done. Families are constructed with social norms of who is allowed to do what, who is required to do what and who is forbidden to do what. Norms are thus the building blocks of relationships. They change over time and these changes often mark the changes from one stage of family life to another. Different norms govern every stage of family life, those that develop within the family and cultural/social norms from without. Gender norms refer to what is expected of men and women, and what is considered masculine behaviour as different from feminine behaviour.

Culture and Livelihoods

Culture is dynamic and constantly changing, often as a consequence of changing historic and physical conditions, but also as a consequence of interactions with other cultures. The cultural aspects of place, norms, values, ethnicity, religion and class can be regarded as overlays which influence the livelihoods of families and households within a culture, but the strength of that influence varies based on the alignment or conflict of each family or household with other cultural overlays, and with the ecological and historical context.

Culture touches all aspects of family life- what people eat, how they handle differences, who has power by virtue of gender and role, whether persons believe they control their lives or that they are controlled by fate, etc. Each of these aspects of life relates to some understanding of what is important. Core values are expressed in family behaviour because they are believed to be the ‘right’ way (Garland 1999).

Culture also defines how families socialize their members. Socialisation is the process by which persons acquire the behaviours and values of their social world. It is the cultural training that goes on constantly in a family. Even though we often think of children as being “socialized” by the family, adults also continue to be socialized throughout their lives. According to Arnett (1995: 618) the objectives of socialization are: (1) role preparation and performance, including occupational roles, gender roles and roles in institutions such as marriage and parenthood; (2) impulse control, including the development of a conscience; and (3) the cultivation of sources of meaning- that is, what is important, what is to be valued, and what is to be lived for. Socialisation also takes place in other social institutions besides such as

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the school, workplace, peer groups, and the church but the family is considered the major locus of socialization for children and adults.

3.2.6 Livelihood activities and strategies

All household's assets base are facilitated or constrained by policies, institutions and processes within a certain vulnerability context. The level of these interactions results in individual's planning and adopting certain responses that together form one or more livelihood strategies. The livelihood strategies adopted are highly dynamic and vary over time because how choices are made and which ones are preferred depend on the seasons, years and the stage in the life cycle, the culture and prevailing institutional environment. Thus significant variations are likely to be found in responses between different crises situations, at different points in time and within the same area. How livelihood strategy choices are made depends on the constraints under which decisions are being made, the power relations at play, and the way livelihood, poverty, and development is experienced (Bebbington 1999).

A key step in the analysis of people's livelihoods is to identify which livelihood resources, or combination of resources, are required for different livelihood strategies. For the purpose of this research it may be useful to consider the different classifications made by earlier researchers. Davies (1993) identifies four different types of strategies which under normal circumstances are differentiated as: insurance strategies, which are undertaken to minimize the risk of production failure; adaptive strategies, which reflect a mutation of livelihoods and the moral economy in which they operate; recovery strategies, designed to facilitate the recovery from a crisis experience to normalcy; and coping strategies, which are short-term responses to immediate and non-habitual crises. Corbett (1998) on the other hand refers to coping strategies as the ones people might adopt in response to drought or economic disasters, encompassing both insurance and crises strategies. The latter can be detrimental to livelihoods and are usually only adopted in response to a prolonged crises, as such crises strategies are likely to involve the erosion of essential assets and could over time even lead to destitution. As the main aim under these circumstances becomes survival, such crises strategies are referred to by others as survival strategies (Devereux 2001).

Livelihood activities may be defined as the sets of actions through which individuals within their households gain their means of livelihood. While some activities such as fishing, trading, farming, crafts making, migratory labour, transportation and sex work are geared towards generation of a direct income, others, such as childcare, social contracts in production, maintaining social kinship relations and gift giving do not yield direct income but are important for social reproduction, help to secure access to and use of key resources, and contribute to social status and wellbeing.

Livelihood activities may be divided into activities relating to production, reproduction, consumption and exchange. Productive activities refer to those activities that produce goods and services that are potentially tradable and therefore contribute to income while reproductive activities include those associated with household maintenance and well-being (child care, cooking and cleaning), child bearing and socialization of children. Sometimes they are extended to include community support activities like cleaning community wells and streets, care and support to those who are sick or bereaved, or participation in cultural ceremonies.

Consumption activities are those that result in the use and purchase of goods and services that are essential to the satisfaction of material needs such as food, clothing, and medicine. The household is seen as the nexus of livelihood generation and consumption.

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Exchange activities are those related to the transfer of goods, services or information between individuals, groups of individuals and institutions which may occur without necessarily using cash or demanding reciprocity. Exchange activities include commercial trade, barter and gift sharing.

Survival and prosperity for poor people depend on the pursuit of diverse and multiple activities simultaneously by different household members (Chambers 1994), and sometimes in different localities. The nature, scope and effectiveness of these activities depends on the availability of resources, the type and status of these resources, people's capability to create or access them, and the contextual risks and uncertainties that they have to cope with. In this study, the livelihood portfolios of the women fish traders in the study area are examined by exploring the various income generating activities undertaken in the context of the numerous cultural and institutional constraints they have to cope with and the unavailability of resources.

The concept of household strategies was first applied to specific social groups such as people in marginal positions/ small businesses, peasants, who draw on a range of resources in the struggle to survive in risky environments, while the terms "survival" or "coping" strategies were coined to refer to such livelihood strategies (Wallace 2002). Despite the fact that the poor are those associated with the pursuit of multiple activities as a way of survival and spreading risk, it is not only the poor that engage in multiple economic activities and strategies (Niehof 2004). Well-to-do households also do the same, but in their case as a means of using available income generating opportunities to accumulate more assets or strengthen existing stocks. There is a consensus that since the concept of livelihood strategies can be applied to various household types, whether rich, or poor, very few people collect their income from only one source, hold all their wealth in the form of only one single asset, or use their assets in just one activity (Barrett et al. 2001). An analysis of livelihood strategies by Ellis shows that there are multiple ways in which people construct their livelihoods. Therefore, a broad range of causes and motivations that differs between families at particular points in time, make households and individuals to pursue different activities (Ellis 1998).

The concept of "household strategies" has attracted much debate, as firstly, the word "strategy" gives the impression of a rationally strategizing manner of household members, as if they are totally in control of their lives, and this is not necessarily true. There is empirical evidence now that households have a range of economic and non-economic goals which guide their actions, and that even though sometimes households plan their activities, at other times they do not. According to De Haan and Zoomers (2005) household behaviour is not always deliberate "and human behaviour should not always be seen as conscious or intentional: much of what people do cannot be classified as strategic". Secondly, gender specialists have criticized the term because their studies have shown that the household cannot be considered a homogenous unit with members having similar interests (Guyer 1981; Netting and Wilk 1984; Kabeer 1991; Bagchi et al. 1998). The term "household strategy" assumes a consensus within the household as to what strategies to adopt, or that it represents the interests of all household members (Nelson and Smith 1999; Wallace 2002). Gender and other intra- and inter-household factors influence the types and scope of livelihood strategies pursued, and are likely to play a significant role in either enabling or disabling livelihood choices. Thus, it would be unlikely that women's needs, interests and ensuing strategies would necessarily be in agreement with those of the men, as livelihoods are less likely to be organized in one locality and individualisation has seemed to accelerate the breakdown of households wherever men, women and children have had different interests (De Haan and Zoomers 2005; Hebinck and Smith 2001). However, the concept remains relevant as it helps us understand which of the resources

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are important, and to which groups, apart from showing how those resources are combined and used to obtain a living.

The different ways and means through which individuals in a given household make use of resources at any given time is often referred to as a household's "livelihood strategy". However, apart from involving activities that generate income or lead to investment of money into other resources, a livelihood strategy encompasses many other kinds of decisions and choices, including cultural and social choices (Ellis 1998). Recent literature review shows that people's response to risks and uncertainties as well as opportunities vary between a conscious choice to manage risks and make use of opportunities (making further investment, savings and accumulation) on the one hand and economic necessity or survival (responding to stress, shocks, vulnerability and poverty) on the other (Bebbington 1999; Ellis 2000; Smith et al. 2001; Dolan 2002).

Livelihood outcomes

The adoption of different livelihood strategies is meant to result in desirable outcomes such as food and income security, the security of incomes, strengthened resource base, improved well-being (health, self esteem, respect, sense of control, and maintenance of cultural assets), reduced vulnerability and sustainable use of natural resources. These outcomes are required to for meeting and securing actual and future basic needs and directly influences people's assets base and access to resources (Bebbington 1999; Niehof and Price 2001). Outcomes are related to security, including the level and stability of income and degree of risk, and to environmental sustainability, including soil quality and biodiversity (Ellis 2000). Livelihood outcomes influence people's assets base and access to resources directly though not all livelihood strategies lead to positive livelihood outcomes and well-being. Some strategies undertaken, especially those resulting in the depletion of key household resources, compromise the household's future capacity to cope with, and recover from shocks and stress, or to provide for its members.

The quality of livelihood strategies adopted by people can be examined in terms of its sustainability (robustness of its resource base and its ability to recover from stress) or its vulnerability (inability to cope with the uncertainties and shocks in the environment) (Niehof 2004). According to Chambers and Conway (1992) and Scones (1998), a livelihood is regarded as sustainable if it can cope with and recover from shocks and stresses, and maintain and enhance its capabilities and assets both now and in the future, while not undermining the natural resource base. The concept of livelihood sustainability therefore encompasses not only the mere description of the current livelihoods but the way these livelihoods may affect the ability of other people to achieve their own livelihoods, both now and in the future. In conclusion, the poorest and often most vulnerable households that find themselves forced to adopt strategies which just enable them to survive but not to improve their welfare, can be regarded as having unsustainable livelihoods.

3.2.7 Vulnerability

Vulnerability, according to Cardona (2004), is an internal risk factor of the subject or system that is exposed to a hazard, corresponding to its intrinsic disposition to be affected, or to be susceptible to damage. Therefore, it represents the physical, economic, political or social susceptibility or predisposition of a community to damage in the case of a destabilizing

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phenomenon of natural or anthropogenic origin. Wisner et al. (2004:11) however define it as “the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard”. This definition can be assumed to cover man-made disasters as well.

While the concept of vulnerability is often used as a synonym for poverty, the two are not the same (Moser 1998). Devereux (2001) argues that livelihood vulnerability is not only a symptom of poverty but a contributory factor. According to Dietz (2000), due to resource constraints poor households are as a matter of fact among the most vulnerable even though non-poor households may also be vulnerable due to certain shocks, such as the death or illness of the male household head. Vulnerability is a dynamic process (Glewwe and Hall 1998; Moser 1998) and people move in and out of poverty due to vulnerability (Baulch and Hoddinott 2000). Poverty is about ‘not having enough now, whereas vulnerability is about ‘having a high probability now of suffering in the future’. The vulnerability of a person or group depends on external factors such as the environmental context in which people live. It also depends on the on the specific characteristics of the person or group, such as sex, age, marital status, and employment status (Chambers 1989). According to Brons *et al.* (2007) and Chambers (1989) therefore, these internal dimensions of vulnerability result from entitlements failures, lack of access to specific resources, defenselessness, insecurity, and exposure to risks, shocks and stress. Dietz (2000) observes that due to resource constraints, the poor are often concentrated on the most degraded and fragile and risky environments, making their livelihoods even more vulnerable.

A differentiation between physical and social vulnerability has been made by Brons et al. (2007), Chambers (1990) and Watts and Bohle (1993) where they describe physical vulnerability as exposure to stress and crises resulting from physical hazards; and social vulnerability as the lack of capacity of individuals and communities to respond to physical impacts. Factors and processes such as crop and animal pests, disease outbreaks, unpredictable weather conditions, unstable market prices, seasonality, diminishing social support networks and poor infrastructural facilities can be said to constitute the biophysical environment. In relation to this, HIV/AIDS has been identified as a component of the external vulnerability context in rural livelihoods in Sub-Saharan Africa by Blaikie et al. (1994) and Barnett et al. (2000). On the other hand, individual and household characteristics such as age, sex, education, health status, position in the household, income, asset ownership, dependency ratio influence people’s fall-back position, and can be said to be linked to social vulnerability.

Glewwe and Hall (1998) distinguished vulnerability on the basis of socio-economic context as ‘policy induced’ and ‘market induced’, observing that ‘interdependence within the larger economy, less diversified household income, less stable employment and reduced demand for lower level skills as technology changes’ are responsible for economic shocks behind vulnerability. Winchester (1992) relates the level of vulnerability to household characteristics such as the type of family (indicator of ‘how people live, assets they share, nature of support network’) and family size (indicator for ‘labour power and productivity’). He also suggests that fertility patterns and phase in the family life cycle have significant effect on household size and economic status. Another important characteristic that bears on differential vulnerability is the age of the household members, which points to a relationship between vulnerability and the household life course. People diversify their livelihood to avert future vulnerability (Ellis 2000).

According to Winchester (1992), vulnerability at the community level is related to the degree of risk due to extreme physical or natural phenomena. He emphasizes the risk related to socio-economic and socio-political factors. Sen (2002) adds a gender perspective to

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vulnerability, arguing that gender vulnerability happens due to gender hierarchies in the development process as part of the differential ways women experience marginalization and discrimination compared to men. He argues that social vulnerability originates due to exclusion because of breakdown of social ties, discrimination, harassment experienced by minority groups, the lack of protection against hardship created by divorce or desertion, during widowhood and for the elderly.

Vulnerability is dynamic and involves a sequence of responses that occur after a given shock is experienced (Glewwe and Hall 1998). The concept has two dimensions: susceptibility and sensitivity. According to Davies (1993), susceptibility refers to “bouncebackability”, or the ease and rapidity with which a community or household or individual returns to a normal state after a crisis, while sensitivity refers to the magnitude of a system’s response to an external event or the intensity with which the shocks are experienced. “Bouncebackability” depends on the household or individual’s capacity to deal with the crisis as well as the existence and magnitude of other shocks at the time of the new crisis. Winchester (1992) relates the level of vulnerability to the household characteristics like the size, assets base, age of household members and the nature of support networks engaged in; and also to the community characteristics which make up the socio-economic and socio-political factors. Therefore, the status of the household resource base, existing social support networks, prevailing socio-economic and political environment as well as government and private institutional support are important determinants of the capacity to effectively respond to a given crisis and, consequently, the ability to bounce back.

The degree of vulnerability, and thus the level of resilience or sensitivity to different hazards and their consequences differ for different individuals and among households depending on the level of exposure to different risks and the capacity to respond. For example farmers and fisherfolk in different localities experience different vulnerabilities to varying degrees. The impact of climatic variability may particularly affect farmers in drought-prone areas and artisanal fishermen in semi-permanent coastal communities. However, if the farmers in non drought-prone areas experience a disease outbreak or the fisherfolk in permanent settlements have a fire incident, then the impacts of the climate variability, which otherwise would be inconsequential, becomes acute and significant.

Dolan (2002) notes that gender identities also shape the options and rights possessed by individuals. Other researchers have also identified social characteristics such as gender, age, wealth status and education to be associated with vulnerability (Cutter 1996). The fact that households are composed of individuals with varying degrees of agency, endowments, rights and power implies both differential susceptibility and sensitivity.

Seasonality also plays an important role in rural livelihoods (Niehof 2004). All rural households have to face seasonality as an inherent feature of their livelihood (Chambers 1989; Sahn 1989; Agarwal 1990). Seasonality means that continuous household consumption needs are not matched by even income flows, and therefore, consumption ‘smoothing’ is needed (Ellis, 2000). In rural Nigeria, as in all rural communities, the seasonal calendar explains the timing of seasonal labour migration and helps in determining the crisis period (Lindenberg 2002). Seasonal vulnerability is an important dimension of vulnerability due to market peaks, and households channel their resources in accordance with the agrarian and fishing cycles. Migration to other agricultural production zones is an option for coping with seasonal vulnerability (Ellis 2000), while circular or permanent migration of one or more household members to non-farm occupation are options as well (Alderman and Sahn 1989).

In many parts of Sub-Saharan Africa, the high prevalence of HIV/AIDS has made many households increasingly vulnerable through reduced productivity, capacities and

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opportunities. As many researchers point out, AIDS strips individuals, households, networks and communities of different forms of capital thus reducing their future capacity to cope with other shocks (Blaikie et al. 1994; Gillespie et al. 2001; Barnett et al. 2000). Many studies on the impacts of HIV and AIDS on agrarian households have shown that they are shifting labour and other resources from productive activities to HIV/AIDS-related support and care, thereby jeopardizing short and long term survival (Tabaijuka 1997). The study of AIDS-induced changes in household composition and structure would be of particular importance in fishing communities in Nigeria since they have been known to influence household labour availability for agricultural production, processing and marketing and other income generating activities, and as a result, the capacity of households to generate sustainable livelihoods (Allison and Seeley 2004; Béné et al. 2005).

3.2.8 Applying the livelihood approach

The livelihood approach is useful because it facilitates our understanding of the various ways in which the people and households construct a living. The way people use and organise access to resources, deal and negotiate with institutions, react to rules, regulations and other changes in their institutional and physical environment as well as the ways by which they adapt or respond to changes in the environment. While livelihood analysis has been applied to rural communities, and often to farming, such analysis has also emphasized that besides farming, rural people make a living in other ways (Carney 1998; Scoones 1998; Hebinck and Bourdillon 2001; Whitehead 2002; De Haan and Zoomers 2005). Despite the focus on the household as a unit of analysis, the livelihood approach also facilitates the linkage of relevant interactions at the micro, intermediate and macro levels of development (Adato and Meinzen-Dick 2002). It also facilitates an understanding of how changes in any one level can transform what happens at the micro level apart from unveiling the possibilities. Many of the earlier approaches in livelihood studies regarded poor people as passive victims. The trend since the 1990s has however been to study survival strategies. Influenced by the work of Scoones (1998), particular attention is in recent times being paid to the world of lived experience, at the level of the household, social networks and the community (De Haan and Zoomers 2005). Such an approach to the study of livelihoods is actor-oriented, place-focused and context-specific. It is used in this study to investigate the livelihoods of women fish traders' households in Ibaka, a permanent fishing community with a link road to the hinterland which has been plagued with years of neglect at the social, institutional, and physical levels. The key questions focus on whether the livelihood strategies of the fish traders are affected by the prevalent cultural and institutional constraints, and if yes, what their strategic responses to the constraints, what factors affect these strategies, and what the implications are for their households' livelihood security.

Chambers and Conway (1992:6) suggested that “a livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities, assets and entitlements, while not undermining the natural resource base”. However, few livelihood studies have pursued the agenda of how livelihoods “can cope with and recover from stresses and shocks” and the resilience analysis that this would entail (Berkes et al. 2003). Stresses and shocks that impinge on livelihoods are the result of interactions between the forces and local contexts (De Haan 2000; De Haan and Zoomers 2003; Armitage and Johnson 2006). Fluctuations in resource abundance, seasonal cycles of resource use and changes in access create conditions that bring challenges for rural households. Similarly, economic drivers (world

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markets, unaffordable credit) and policy drivers (misguided government programs) also create stresses and shocks that impact rural life (IFRC 2004; MA 2005).

According to Turner et al. (2003), a stress is a continuous or slowly increasing pressure, commonly within the range of normal variability, whereas a shock or perturbation is a major spike in pressure beyond the normal range of variability in which the system operates. Stresses tend to be ongoing as in the case of resource declines; seasonality issues, such as lean times and; perturbations and fluctuations within the social-ecological system. The onset of shocks tends to be intense and dramatic, such as the fire incidents that hit Ibaka in 1996, 2000 and 2007, economic devaluation (devaluation of the Nigerian currency in 2008), or violent conflicts (Bakassi Peninsular conflict between Nigeria and Cameroun, 2004-2007, the ongoing Niger Delta conflict which started in 1997). Although stresses and shocks can fade so that life appears to return to 'normal', such "equilibrium thinking" does not enable an understanding of how households respond, and continually adjust, to change (De Haan 2000).

3.2.9 Livelihood security

Many of the definitions of livelihood security currently in use derive from the work of Chambers and Conway (1992). According to them a livelihood "comprises the capabilities, assets (stores, resources, claims, and access) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation" (Chambers and Conway 1992).

Household livelihood security (HLS) has been defined as adequate and sustainable access to income and resources to meet basic needs (including adequate access to food, potable water, health facilities, educational opportunities, housing and time for community participation and social integration) (Frankenberger 1996). According to Frankenberger and McCaston (2001), the concept of livelihood security developed through the evolution of concepts and issues related to food and nutrition security. When a household's livelihood is secure, it should be food secure as well even though food is only one important basic need among several, and adequate food consumption may be sacrificed for other important needs. Given that the causes of poverty are complex, the concept of livelihood security provides a framework to analyze and understand the web of poverty and people's mechanisms for dealing with it.

Niehof and Price (2001) suggest that livelihood generation should display the workings of a multi-faceted and dynamic system having the following components;

- Inputs: resources and assets;
- Output: livelihood;
- Purpose: livelihood adequacy for meeting basic needs (Chambers 1989);
- Activities: livelihood generation and the composition of the livelihood portfolio;
- Agency: efforts of households and individuals to achieve livelihood adequacy;
- Quality: degree of vulnerability (or sustainability) of the livelihood produced;
- Environment: context within which the livelihood system functions interfaces with other systems and solutions;
- Locus: the household as the locus of the livelihood generation.

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Livelihoods can be characterised by their degree of vulnerability or - at the other end of the risk continuum - sustainability (Niehof and Price 2001). Livelihoods can be made up of a range of activities that together provide a variety of procurement strategies for food and cash. Thus each household can have several possible sources of entitlement, which constitute its livelihood. These entitlements are based on the endowments that a household has and its position in the legal, political and social fabric of society (Drinkwater and McEwan 1992). The risk of livelihood failure determines the level of vulnerability of a household to income, food, health and nutritional insecurity. The greater the share of resources devoted to food and health service acquisition, the higher the vulnerability of a household to food and nutritional insecurity. Therefore, livelihoods are secure when households have secure ownership of or access to resources (both tangible and intangible) and income-earning activities, including reserves and assets, to offset risks, ease shocks and meet contingencies (Chambers 1989). Households have secure livelihoods when they are able to acquire, protect, develop, utilize, exchange and benefit from assets and resources (Ghanim 2000).

To assess livelihood sustainability, we have to look at how rural people are maintaining their livelihoods and understand the dynamics of rural livelihood systems and people's strategies. Households manage their livelihood strategies according to the household situations using different types of strategies in different situations and at different phases in the life course of the household. Furthermore, people develop their livelihood strategies according to the situation they face on the basis of their past experiences (Pennartz and Niehof, 1999). Households use their assets, livestock or savings, or they use social capital to handle or overcome situations of stress.

3.2.10 Fisheries and livelihood security

It is generally recognized that the root cause of livelihood insecurity is food and nutrition insecurity and vulnerability to shocks, trends and stress. The people who are susceptible to food insecurity and vulnerability are predominantly rural dwellers, including fishing and farming communities (Williams 1999). In Nigeria, as in Southeast Asia, majority of the fisherfolk, who are the primary producers, the processors and marketers of fish, are still underprivileged and live a very poor life in their communities. Fisheries are important to the livelihood security of over 20 million people worldwide because of its often open access and the use of the resource as an occupation of the last resort by many peasants in rural communities.

Fish provides a wide range of food at a wide range of prices, depending on species, size and season. They occasionally serve as famine food, being subject to heavy exploitation when other sources of animal protein are scarce (FAO 1995). In Nigeria, the rate of utilization of fish, both from the freshwater and marine environments is high, as almost all kinds of fish are eaten and in practically any state of preservation (FOS 1993; FAO 1995). In the Niger Delta, Nigeria, fish, vegetables and cassava flour (*garri*) constitute the staple diet because fish is acceptable to all ethnic and religious groups. Fish, including other seafood, provide from 25 to 65 percent of the total animal protein consumption in Nigeria; thus they have an important

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role in the food security of the country, providing a supply of nutritious food, which includes protein, essential amino acids, fish oils and essential micronutrients such as calcium, iodine and some vitamins. The average annual per-caput consumption of fish in Nigeria from 2000 to 2005 was 18.0 kg/person, higher than the world average of 13.0 kg/person (FAO 2008).

Fisheries thus have an important role to play in ensuring food security for the steadily expanding population of Nigeria, especially the low-income rural dwellers and the urban poor, apart from contributing to the socio- economic empowerment of the fisher-folk. More than five million people are engaged in the primary economic activity, that is, capture or culture fisheries, either on a full-time or a part-time basis, both in small-scale and commercial capture fisheries and in fish farming. The estimated number of persons employed in fisheries-related industries such as processing, distribution and trade amounts to over 6 million. Besides its contribution to employment and income earnings, fisheries also provide benefits to the economic wealth of the regions (FAO 2008). The trade on fisheries commodities has developed rapidly during the past two decades, and they have become one of the most important agricultural products in international trade.

3.2.11 The gender perspective

The term gender refers to socially constructed maleness and femaleness and varies both within and across cultures, and over time. According to Kabeer (1994), gender refers to the full ensemble of norms, values, customs and practices that define differences between men and women in any given society. In Giddens' definition gender refers to the psychological, social and cultural differences between males and females, is socially constructed and dynamic (Giddens 1993). A gender analysis involves the investigation of the socially defined roles, responsibilities, and the relations between men and women in a given society. It reveals the heterogeneous nature of men and women's responsibilities and experiences and the consequent differences in their interests and needs. Several anthropologists have pointed out that household relations play an important part in defining opportunities for social and economic well-being (Moore 1988; Guyer 1980; Whitehead 1981). Women's social status within the kinship system and household, for example, influences their capacity to access and mobilise resources as well as the types of livelihood opportunities that are open to them.

A gender perspective therefore proffers a multidimensional perspective to livelihood because apart from the multiple roles played by men and women in the household, labour market and society, it also considers other factors that inter-relate with gender, such as age, and ethnicity (Mujer and Desarrollo 2004). It improves our understanding of how the household functions, since it reveals the hierarchies and inequalities in the power relations and the distribution of resources. A gender perspective also affirms the importance of taking into account the historical processes and micro-macro linkages that have shaped and continue to shape people's lives.

Traditionally, there has always been a strict division of labour in agriculture in Africa (Hoddinot and Haddad 1995; Saito 1994) even though a number of authors have documented changes in gender roles arising from compelling circumstances (Saito 1994). In the fisheries sub-sector in Southern Nigeria however, the status quo has been maintained over the years. As

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reported by Verstralen and Isebor (1997), Alamu (1991, 1993) and Williams (1999), Adewale and Ikeola (2005) fish processing and marketing in Southern and most parts of Central Nigeria are economic activities carried out solely by women. Fish processing and marketing by women have also been reported in other West African countries by Diallo (1995), Anon. (1995), in Indonesia by Niehof et al. (2005) and Niehof (2007). Processing and marketing of other food items by women have also been reported in Nigeria by Ogbomo (1995), Falola (1995), Ekechi (1995), in other West African countries by Lutz (1994, 2002), Moll et al. (2001), Charmes (2000) and Van Tilburg (2001), and in Indonesia by Alexander and Alexander (2001).

HIV/AIDS-related sickness and death as well as migration have been known to reduce labour as well as change its allocation within farming households, resulting in women taking over household headship and men's roles in the household. However, these seem to affect women's roles only, because men have not been seen taking over women's agricultural roles, especially the production of food for household consumption and food processing (Doss 1999). Dolan argues that the potential to exploit a particular asset or capitalise on a livelihood option is as much governed by the social meanings attached to particular tasks as to gender. Consequently, he concludes: "identifying the nature of gender relations not only provides a clearer picture of intra-household obligations and exchanges but also shows us how livelihood strategies are negotiated, structured and legitimated through broader ideological processes" (Dolan 2002: 3).

According to Bravo-Baumann (2000) and Mujer and Desarrollo (2004) women's intensive involvement in the domestic sphere, due to the sexual division of labour, causes inequalities of opportunities for women, as a gender, to gain access to material and social resources, and to participate in decision making in the main political, economic and social policies. According to them, women not only have fewer material assets, but also social and cultural assets, all of which increase their vulnerability. In Ruspini's view, women's narrower access to resources translates into deprivations in various social spheres, such as the labour market, the welfare or social protection system, and the household (Ruspini 1996). Sen's view on the issue is that the social perceptions of the contributions of women to the household also affect their bargaining power and the level to which they will have access to resources within the household (Sen 1990).

The differences in the levels of agency, rights and resources available to different people implies different levels of needs, interests and constraints. Moser (1993) categorised needs into those that arise because of either men or women's socially accepted roles (practical gender needs), and those that arise from women's subordinate position to men in society (strategic gender needs). Practical gender needs are a response to immediately perceived necessities, identified within a special context, such as provision of water, food, healthcare, childcare, housing and income (Moser 1993). Women and young girls bear the increasing burden of caring for the infected in HIV/AIDS-related households in addition to their heavy schedules. AIDS widowers who do not remarry also experience problems in having to take over the late spouse's roles such as cooking and childcare, which they were never socialised to do. Addressing practical gender needs does not challenge the gender division of labour.

Strategic gender needs are those pertaining to the gender division of labour, power and control over resources, and includes such issues as legal rights, domestic violence,

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women's control over their bodies and equal wages for equal work (Moser 1993). The Human Rights Watch Report (2003:21) observed in Uganda that:

“Cultural perceptions of women's sexual and reproductive obligations in marriage rob women of bodily autonomy while unequal property rights, the payment of bride price, and women's inability to take their children from the father's homes render women unable to leave abusive relationships.... Widows also face imposing obstacles: many are stripped of their property and left to struggle to support themselves and their children. These factors and more, combine with violence or the threat of violence to create an environment within which women are trapped into having unprotected sex with HIV-positive men and are unable to seek information or treatment on HIV infection and AIDS”.

This is also applicable to Nigeria, which has similar cultural practices. Meeting the women's strategic gender needs could therefore bring about transformation in women's position and a reduction in existing levels of inequalities.

Gender needs are a consequence of the constraints men and women face in the process of livelihood generation. Kabeer and Tran Thi Van Anh (2006) developed a typology for assessing the nature of gendered constraints. These they described as:

Gender-specific constraints - stemming from the specific nature of gender and power relations themselves, such as the allocation of labour and other resources for productive activities and household tasks as well as access to services and markets, and the incidence of gendered violence;

Gender-intensified disadvantages - arising from the uneven and often inequitable distribution of resources between men and women, including cultural/ religious conventions, and the social rules and norms that regulate property rights, inheritance practices and resource endowments; and

Gender-imposed constraints - resulting from biases and partialities of those individuals who have the authority and power to allocate resources, and these include provision of credit, information, agricultural extension and healthcare. As Seeley et al. (2004) rightly argue, understanding these constraints take us beyond gender relations and sexual behaviour, to focus also on challenges individuals face in mitigating the impacts of HIV/AIDS. Whitehead (2001) also avers that the gendered constraint typology could be helpful in identifying areas that might require policy intervention.

Gender and the fish trade

Numerous researchers have reported that in Southern Nigeria, where the Niger Delta is located, women are the processors and traders in fish and fishery products (Verstralen and Isebor 1997; Williams 1994; Ikurekong 2005). Alamu (1991, 1993) also reported on the fish processing and marketing activities of women in the Kainji Lake in Nigeria while Adewale and Ikeola (2005) reported on women's economic activities in dams in Nigeria. Processing and marketing of other food items by women have also been reported in Nigeria by Ogbomo (1995), Falola (1995) and Ekechi (1995), and in other African countries by Diallo (1995), Njie (2002), Lutz (1994, 2002), Overa 1993), Robertson (2001) and Moll et al. (2001). In Southern Asia, fish and

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food processing and marketing activities by women have been reported by Niehof et al. (2005) and Niehof (2007), Alexander and Alexander (2001) in Indonesia, Lessinger (2001) in India, and Samudra (1995) in the Philippines.

The fish trade, just as the food trade, is for the most part a small-scale, subsistence economic venture involving little capital (Moll et al. 2001; Van Tilburg 1996). With small transactions, many intermediaries and market transactions that are beyond the reach of the law, the traders opt for trading practices that minimise the potential for breach. Uneven quality of goods marketed give rise to adverse selection while screening of potential suppliers is complicated due to lax payment practices. Also, the screening of potential recipients of supplier credit is complicated, raising moral hazard issues (Fafchamps 1996; Fafchamps and Minten 2006). Under-developed infrastructure, several production units and unclear national agricultural policy frameworks translate into transportation delays, storage losses and marketing information asymmetries (Fafchamps 1996; Abbot 1993; Jones 1996; Lutz and Tilburg 1997). Transaction costs are therefore higher than observed elsewhere (Moll et al. 2001).

While literature exists on the performance of food markets in Asia and Africa, the literature is limited on the performance of the women fish processors and marketers as actors in the market, their performance at their dual roles in their households, how successfully they manage these roles in the face of institutional and cultural constraints, and the potential effects of HIV/AIDS on their performance. The fish trade in Ibaka conforms to the above characteristics as observed in Ibaka during the qualitative study.

Credit is not available from formal sources therefore loans are taken from non-formal and informal networks by the women to maintain their livelihood portfolio and sustain their livelihoods. The formal sector includes commercial banks, the non-formal sectors include local moneylenders and NGOs, and the informal sector includes relatives, neighbours and local elites. When households lack assets they are treated as less credit worthy (Holden and Binswanger 1999). Commercial banks usually ask for documents of land or a house on mortgage as collateral, while local moneylenders provide money against documents of land, houses, jewelry or other valuable assets. Group trust functions as collateral in the case of credit provided by the NGOs. All credit programmes that target women use group formation and peer group pressure as collateral (Onyuma and Ouma 2005). Social collateral can replace individual collateral in group based lending programmes (Bastelaer 2000). NGOs in Nigeria are also known to take the signature of the husband or son of the person who will use the loan (Rozario 2002), while mutual trust and social or individual networks help the others to get credit at the individual level.

Women fish processors, traders, and entrepreneurship

Entrepreneurship is a relatively new area of research in management science but there has been tremendous increase in its study in recent times (Shane 2003). Different researchers look at entrepreneurship from different perspectives. The first group addresses it from the individual's perspective, called the supply side; the second group focuses on the external forces or environment surrounding the entrepreneur, called the demand side perspective, while the third perspective, which is more recent, takes a view in-between the first two. This study fits into

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this third perspective which looks at how the linkages and networks the entrepreneur brings into her environment facilitates or constrains entrepreneurship.

Early studies on entrepreneurship include that of Barth (1963), on the role of the entrepreneur on social change, Barth (1967), in understanding the exchange spheres in Dafur, and Long (1977) in analysing entrepreneurship as a differential response to change. Recent studies on women traders as entrepreneurs include that of Clark (1994) on the survival and accumulation of West African market women, Babb (1998), on the political economy of market women in Peru, Seligman (2001), on women traders in cross-cultural perspective and Overa (1996, 2003), on the entrepreneurial women in the Ghana fisheries. Frederick Barth was among the first to associate entrepreneurship with agency, strategies and modes of behaviour with the performance of one's roles. In his definition entrepreneurship is the ability to convert value from one sphere of exchange to another, and spheres of exchange are 'discreet spheres of economy, with unity within and barriers between, in which goods and services can circulate freely' (Barth 1963: 10). In summary, though certain types of value cannot circulate between two spheres, they can do so within a particular sphere.

In the female sphere of fish processing and marketing, the entrepreneur finds channels of conversion through the barriers between the spheres, with the goal of accumulating profit. However success is not only measured in profits, social respect, recognition and prestige are also important measures of success and value creation. Pierre Bourdieu (1985) calls this symbolic capital, which can be stored, combined with other types of capitals and/or converted or transformed into economic capital, and vice versa. Through finding new ways of capital conversion between spheres (from fish marketing to production or credit transactions) or by adopting new strategies in combining different forms of capital (as in combining feminine and masculine strategies in leadership positions and in equipment ownership and diversification), the entrepreneur enters new niches, or devises new ways of utilizing old niches such that the different types of accumulated capital types mutually stimulate each other (Overa 2003). The successful entrepreneur can therefore advance her economic position, or her location in the local, regional or national power structure.

HIV/AIDS and gender

Rural communities, HIV/AIDS, and gender issues are intimately linked. HIV/AIDS-related illnesses and death contribute to household livelihood and food insecurity, with differential impacts for men and women. This is understandable given the epidemic's attack on the most productive segment of society and the existing inequalities in the agricultural sector and fisheries sub-sector.

HIV/AIDS not only threatens the capability of a household to function as an economic unit but the entire social fabric of the family (and community) is potentially disrupted or dissolved (Mann et al. 1992). At the community level the epidemic reduces agricultural productivity in both small subsistence and commercial farming. It also weakens rural institutions in their capacity to deliver services as professional staff are affected. Furthermore, the combined impacts erode the performance of the economy because it undermines government's efforts at implementing national agricultural policies due to the inability of the affected households to cultivate cash crops or participate in local cooperatives that may be

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promoted by the government. As Baylies (2002) notes, HIV/AIDS can be treated in its own right as a shock to household against household food security, even though with effects that are different from all other kinds of shocks.

HIV/AIDS impacts are also mediated by socio-cultural landscapes (Gillespie et al. 2002; UNDP 2004) which results in making women more vulnerable to AIDS impacts than men (UNAIDS). Women are more susceptible to HIV infection because of their physiological characteristics, and the inequality and power imbalances between the different sexes in the society. Official statistics show that HIV/AIDs disproportionately affect women (UNAIDS 2004). Statistics on Sub-Saharan Africa show that 57 percent of infected adults are women while 75 percent of the young people infected are women and girls. Women and girls, apart from having limited power over their bodies, particularly regarding their sexuality, may often be forced to engage in risky behaviour such as transactional sex, because of their economic vulnerability. As noted by Tallis (2002), HIV/AIDS is not only driven by gender inequality; it entrenches gender inequality, putting women, men and children further at risk.

In rural areas, women are responsible for the household's healthcare as an integral aspect of their reproductive role. Researchers have found that AIDS-related illnesses have detrimental effects on the effectiveness of various productive activities of rural households. Agricultural production and other income-generating activities are affected negatively thus resulting in reduced incomes (Nombo 2007). The spread of HIV/AIDS thus limits livelihood options in rural communities (Ory 1999). The most economically vulnerable female-headed households are those which are landless, those without any assets or resources, those with children from unmarried adolescent mothers, households which migrate for employment, those with an infected member and refugee households (Firebaugh 1994).

Current estimates however show that the rural areas will bear the larger burden of the HIV/AIDS impact in Nigeria as ill people generally tend to migrate to the rural areas where life is easier, and the immediate and extended families will provide care (Obbo 1995; Mutangadura 2000; Anderson 2002). HIV/AIDS' impact on rural households which are mostly agrarian and informal are expected to be severe as labour shortage, knowledge loss, asset depletion, loss of incomes, formal and informal institutional support will be the result. Loss of incentives for coordinated group action and inability of communities and user groups to pool risk and act collectively may also result. This would have negative consequences for access to financial and other resources, and other processes dependent on collective action. It would also accelerate the breakdown of extended family relations which form the foundation of traditional safety net mechanisms (Barnett and Blaikie 1992; Drinkwater 2003; Haddad and Gillespie 2001).

There has been a growing concern that the HIV and AIDS prevalence is higher in fishing than in agrarian communities due to the nature of these communities (Allison and Seeley 2004; Béné et al. 2005). Béné et al. described typical fish landing centres in Uganda as nodes of a thriving cash economy in often remote and cash-poor areas with thriving bars and commercial sex industries. This makes them risky environments where the predominantly masculine culture encourages binge drinking, drug use and sexual promiscuity.

HIV/AIDS constitutes an additional threat to sustainable livelihoods as women bear the triple burden of caring for the infected, feeding the household and earning income. This results in time constraints, lower income, higher health and labour costs, debt and school dropouts. Several research studies have emphasised the plight of women, children, and youths

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affected by HIV/AIDS and prolonged illness in households in rural communities (Abrahamsen 1997; Barnett and Blaikie 1992; Leatherman 1996, 2005).

HIV prevalence in the Niger Delta was 5 percent in 2003 (FMOH 2005; UNAIDS 2005). Its adverse effects on women's productive and reproductive activities include its limitation of their livelihood options, creation of time constraints and competition for household resources (Barnett and Blaikie 1992; Haddad and Gillespie 2001; Drinkwater 2003; Leatherman 1996, 2005; Müller 2005). These all increase their vulnerability.

3.2.12 The concept of the market

Exchange is a principal element of economic activities and enables acquisition of commodities and factors that are not in the possession of an individual economic actor (Nazneen et al 2007). It therefore leads to welfare improvements for actors while calling for coordination of supply and demand of respective commodities and factors. The Ibaka fish market fits into the system of contract transactions. Contracts can be complete, where mutual obligations and provisions for all eventualities are spelt out in advance and for the duration of the contract by the parties, or incomplete, when it is impossible to reach an agreement in advance about all possible events that could affect the exchange (Nazneen et al. 2007). The incomplete contracts include relational contracts, where a relationship exists between parties that can be typified as relation-based. These are informal relationships where the parties concerned share certain risks and benefits. The term 'networks' is used for this type of coordination by Knoke and Kuklinski (1991). With incomplete contracts, an actor participates in a social system that involves many other actors, who are reference points in the actors decisions, the position of every individual actor in the social system is relevant, and coordination arises from mutual control. They operate on concepts of trust and information.

The best coordinating mechanism can generally be determined for individual transactions using the profit maximisation potential. Besides the efficiency (costs), effectiveness (goal oriented), and acceptability, other criteria can also determine optimal coordinating mechanism. The optimal choice can change over time if for example, improved communication system reduces transaction costs, leading to the adoption of a more efficient coordination mechanism. Mechanisms can only be optimal given the constraints that the actors are facing, and can therefore be welfare-improving if the constraints are removed (if possible). Setting up a credit system could for example replace relational contracts as coordinating mechanism for credit.

Choices of coordinating mechanisms in developing countries are slim and inefficiency occurs because markets and informal relational contracts are the only coordinating mechanisms available and other options require a certain institutional environment which is absent. If markets do not function well there is loss in welfare. The solution therefore lies in removing factors that cause market imperfections or finding alternative coordination mechanisms.

Transaction costs

Transaction costs are incurred within different coordination mechanisms such as markets, contracts or social networks. They are costs connected with the realisation of transactions, and

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include costs of searching for information on prices or quality of goods; negotiation costs (time, facilities, etc.) specification costs (what demands the transferred goods must fulfil); inspection costs (ensuring the desired specifications), and arbitration costs (court and representation). Time inconsistency, among other issues, can lead to high transaction costs. This involves the alteration of the 'rules of the game' by the policy-setting party (e.g. a trader or government) which borders on the credibility of the policy, resulting in the behavioural change of the other party, which may prevent a transaction or lead to higher cost of the transaction. High transaction costs seem to favour the proliferation of networks while low transaction costs result in the appropriate coordination mechanism. According to Nazneen et al (2007), the higher the frequency of a transaction, the lower the costs because economies of scale reduce the cost per transaction, particularly when special conditions have to be met. The market is thus favoured by a high transaction frequency.

Risk

Risk implies uncertainty, which involves the problem of taking the right decision without adequate information. Knowledge about risk factors can be increased through collecting information before taking a decision. Uncertainty and the cost of obtaining information (a form of transaction cost) influence the choice of coordinating mechanisms (Nazneen et al 2007). Total lack of information, as in Ibaka, can also be classified as information asymmetry (Douma and Schreuder 2002), where one of the transacting parties (the agent) knows something the other party (the principal) does not know. This can lead to 'hidden information' or 'adverse selection', whereby, one of the parties knows more before a transaction, and sees no reason to let the other party have the additional information he has access to. Another form of information asymmetry is 'hidden action' or 'moral hazard', whereby one party undertakes some unobservable action that harms the other party after a transaction has been concluded. Elimination or the reduction of information asymmetry also generates transaction costs, and thus influences the choice of coordinating mechanism.

Market imperfection

Markets, even though most often the coordinating mechanisms used in developing countries, are regarded as imperfect. According to the World Bank (2002) an efficient market needs to be supported by well-functioning land and credit markets as well as functional institutions (for example the judicial system).

Markets are defined as perfect when there are homogenous products, many buyers and sellers, market transparency, and freedom of entry and exit. Market imperfection would therefore entail the absence of one or more of these attributes. There are however various types and degrees of market imperfections distinguished in literature (Nazneen et al 2007). These include missing markets, thin markets, incomplete markets, interlocked markets, and well-functioning markets with imperfect competition.

Missing markets exist where there is no market for a certain commodity produced or demanded. It is classified as an extreme case of market failure (De Janvry et al. 1991), which generally, is household but not commodity or factor specific, and arises from households' inability to participate in existing markets because of high transaction costs. Consequent upon

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the non-existence or poor development of markets for outputs, inputs, labour, credit and risk, rural economies become subsistence oriented, relying on family labour and using household assets as saving instruments.

Thin markets lack economies of scale, in the absence of sufficient demand and/or supply, caused by high transaction costs, weak information (on prices, technologies, and potential contracting partners) and a weak institutional framework which are considered to be the main contributing factors to creating thin markets. According to Kydd and Dorward (2004), economic actors with poor financial and social resources or political leverage face high costs in accessing information and enforcing property rights. These inhibit market development and access to existing markets, and result in a hampered economic and technological development. The low level of economic development leads to thin markets and coordination failure, which may lead to increase in cost of coping with risk. Thin markets also increase the unit cost of infrastructural development (World Bank 2002).

Incomplete markets are those where decisions are taken with incomplete or inadequate information. Inadequate information may be in the form of information asymmetries, which together with missing markets could imply imperfect credit markets and absence of an insurance market in less-developed economies, resulting in increased cost of credit, making coping with risk more difficult (World Bank 2002).

Shallow local markets are those with a high negative variation between household supply and effective prices (Sadoulet and De Janvry 1995: 150). In farming economies a good harvest in any year results in oversupply and low prices, while a poor harvest leads to scarcity and high prices. Poor infrastructure and the resulting high transportation costs limit the supply of the commodities to other regions during over-supply or purchasing from other regions during under-supply, resulting in lack of spatial arbitrage. Absence of well-integrated markets therefore results in wide variation in prices in response to covariate shocks.

Inter-locked markets exist where there are linkages between the input and output markets through a credit relationship. The creditor supplies the inputs and requires that the harvest is sold to him or her at the market price excluding the cost of the inputs. This situation arises normally where there are no alternatives for obtaining credit and gives rise to monopolistic and opportunistic situations. Seasonality implies that households have to find ways to balance their budgets or incomes throughout the year. They tend to require credit in the circumstance, and to obtain credit they require collateral, which if land markets are missing, land cannot serve as collateral (Nazneen et al. 2007).

Entry barriers and recruitment into the trade

Recruitment into trade in West Africa is mainly through kinship and marriage (Overa 2003). Skills are required among other conditions for recruitment into the trading profession therefore lack of skills constitutes a serious barrier for entry. Other barriers include, lack of capital, culture, location, ethnicity and lack of available networks (Clark 1994; Overa 2003; Seligmann 2001).

Trading successfully requires considerable skills. Apart from the general trading skills, others specific to the kind of trade she attempts are required. Particular methods of handling and judging quality of products apply to each commodity, just as do the complicated

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bargaining conventions (Clark 1994). Skill at acquiring and evaluating up-to-date knowledge about a particular set of supply locations, for example, are required for profitability. Starting up or growing an enterprise also requires knowledge of the relevant people at the business locations, and the history of the interaction with individual suppliers and buyers. Certain trades require non-trading skills such as languages, literacy, or numeracy. For a successful operation all these skills must be acquired either through an informal socialization process, a formal apprenticeship or in the course of other relationships.

Skills imparted by formal education are limitedly useful to traders because written and spoken English and arithmetic are important for only those trading on imported and manufactured goods that use invoices, receipts, and mails. Trade in these commodities generally yield higher incomes than local produce therefore education gives women an advantage in commodity choice. However, wealthy illiterate traders were found in Ghana and Nigeria to trade successfully in these commodities through hiring educated people or their children to keep accounts for them (Clark 1994; House-Midamba and Ekechi 1995).

A non-commercial skill traders have to possess is the command of the language used in the marketplace. Having a good grasp of the language is necessary for effective bargaining (Clark 1994). Traders both learn language on purpose and choose trading roles depending on the language they know. Knowledge of basic skills as opposed to commodity-specific skills is also very important and in Ghana Clark (1994) reports that most of the traders reported learning basic skills by themselves by the age of eight or nine through running errands and discussing with their friends. With the basic skills, children are put in a position to learn more specific and sophisticated skills. However, adults do arrange for a more formal training in order to learn specific skills needed to sell a particular or new commodity. Learning through observations, asking questions and helping in small tasks without reward or remuneration is also common.

Studies in Nigeria, Ghana, and Africa as a whole show that entrepreneurs and small business owners lack access to formal finance due to the scarcity of finance, information asymmetry, high cost of credit, lack of collateral, illiteracy and lack of expertise to efficiently evaluate a project potential (Van Tilburg 1992; Clark 1994; Kasekende 2001; Moll et al. 2001; Schiffer and Waders 2001; Trulsson 2002). They therefore obtained their initial capital from their family members or used their own savings (Obeng 2007; Obeng and Anderson 2010).

Networks of well established clients and customers who may include kin and non-kin can be a valuable business asset for a trader, just as the goodwill of their mothers and extended families. In the absence of these a business cannot really start.

Adequate commercial information is required for starting a business. This includes knowledge of skills, locations, and persons. Also, an on-going business demands updated information about supply and demand conditions, price levels, and persons transacting with them, on which their continued operation depends. In times of unstable governments and economic crises, information on current or planned government policies and actions are extremely valuable because the accuracy and timeliness of these kinds of information have very strong influence on the day-to-day accumulation and survival of the trade (Clark 1994).

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Markets as networks

The social and network theory exemplifies the fact that the relational context within which economic transactions take place in the market is critical for the performance of the actors. This theory can be said to also apply to the situation observed at the fish market in Ibaka because all the economic transactions between the actors in the marketing chain are relational. It has been demonstrated that social relations provide permissible limits of behaviour that enhance flexibility, solidarity, mutuality and information sharing necessary to adapt to turbulent market environments (Cannon et al. 2000; Achrol and Kotler 1999). Consequently, organisations strive to develop intimate social relations with customers and suppliers in order to militate against exchange hazards (Kim 1999). Increasingly, social norms, such as trust, commitment and network ties have become vital resources and antecedents for economic performance as reflected by the sheer volume of relevant marketing literature (for example, Atuahene-Gima and Li 2002; Hewet and Bearden 2001; Rindfleisch and Moorman 2001; Wathne and Heide 2004). Also, social relations militate against opportunism (Brown, Dev and Lee 2000; Achrol and Gundlach 1999), and enhance loyalty, shared values and respect (Brashear et al. 2003; Sirdesmukh, Singh and Sabol 2002), even though social relations can be vulnerable to opportunism (Wuyts and Geyskens 2005).

The fish market

According to the FAO's World Fisheries and Aquaculture Atlas (2005), marketing of fish involves the whole chain of links between fishermen and consumers which determine the relationship between the earnings of fishermen and the supply of the product. Markets and the transaction systems utilized for fish trading can vary greatly. Some may be characterized by barter; auctions may characterize others, while future markets are found for certain locations and products.

Because of the short shelf life of fresh fish, modern fish markets in some places have responded readily to the use of electronic communications to facilitate the speed of transactions and the delivery of the product. Marketing systems often evolve over time, adjusting dynamically to market signals about consumer needs. The fish marketing system can be said to operate in a similar manner as the food marketing system with a few variations occasioned by the location of the producers and marketers, therefore it is amenable to the same definition. Food marketing systems (FMS) are defined by Kotler as: "Sets of interdependent organisations involved in the process of making a food product available for consumption" (Kotler 2000). A food marketing system includes actors, functions and institutions. Actors include producers, traders, processors, and transporters, marketing functions are usually categorised into *exchange, physical, and facilitating functions* (Kohls and Uhl, 2001) while marketing institutions include auctions, assembly markets, wholesale markets and market information services. *Exchange functions* include negotiating, buying and selling, arbitrage, *physical functions* include transport (place utility), storage (time utility) and processing (form utility) while *facilitating functions* include standardization; financial services, e.g. credit, risk management (insurance, futures); market information and marketing research. The fish marketing system in developed countries or regions, which comprises a number of spot markets, horizontal networks of assembly or wholesale markets, and vertical marketing channels cannot be compared to the system in developing countries, for obvious reasons.

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Crucial issues about markets and women

Women's participation in markets is determined in part by household structures, sexual division of labour, marriage, residence and inheritance patterns. Household and market interact dialectically as kinship dynamics, gender ideologies, and household practices and economies are transferred to the market. Meanwhile market practices and economic principles became integral to the reproduction of the household and the nature of the activities that take place within it (Seligmann 2001).

Women frequently enter the market as an extension of household tasks they perform as well as to make possible the economic survival of those households and, particularly, to secure the survival of her children. While women are often socialized to contribute the largest share of their labour to the household in order to ensure children's welfare, in many societies that work is not conceptualized as physical caretaking but rather as the economic maintenance of children. In their studies, Alexander and Alexander (2001) in Indonesia and Clark (2001) in Ghana confirm that women enter the market place as "mothers" and assume in the circumstance that in ensuring the welfare of their children and sustaining the livelihood of their households the actions they must take are not restricted to the home only.

Several women are able to join the trading occupation because of its low entry barriers, and in order to counteract widespread unemployment but their entry into trading when cultural values and gender ideologies disapprove of it creates enormous stress within households (Lessinger 2001). However, where there are no ideological constraints on women seeking personal incomes through commerce, women traders have become risk takers and cash earners. Indeed where trade is both an economic imperative and a cultural tradition in which generations of women have engaged, women are able to accumulate considerable capital for themselves, and have even moved into wholesaling (Alexander and Alexander 2001; Milgram 2001). Marketing activities among women are seldom unusual in societies where women are accepted as economically autonomous individuals.

There are many reasons why women become traders, instead of pursuing more lucrative occupations. For one thing competition from men for paid employment and illiteracy ensure men's monopoly, and reduces women to trading, which requires little capital to start. Also, trading offers women more flexibility and enables them to combine their household and work responsibilities; as traders they may already have rights to certain types of crops or fish (Seligmann 2001).

In many countries women are forced to trade because of deteriorating economic conditions which affects the household's survival. In countries where the Structural Adjustment Programmes (SAP) were implemented men lost their jobs and the dire needs of the household took precedence over certain gender ideologies and cultural sanctions regarding women's entry into the market place. Women thus took up the challenge (Babb 2001; Clark 2001; Lessinger 2001).

Markets, institutions and policies

Markets only work because of institutions. They are the implicitly and explicitly agreed ways of interacting ("rules of the game") that govern individual and collective behaviour at different scales (Vermeulen et al. 2008). For example, institutions protect private property, make it possible for contracts to be signed and upheld, protect workers' rights, create incentives for

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new investments, or ensure fair competition. Our cultural preferences are also institutions, and heavily influence consumer demand. Some institutions are formalised and may be enshrined in law, while others, such as consumer likes and dislikes, are informal. Public policy is a special sort of institution, used to influence other institutions to achieve particular social and political objectives. Public policy either works or fails depending on how well it meshes with a whole set of other formal and informal institutions. Hence the focus of this study is on the wider institutional environment.

3.3 HIV/AIDS and the fisheries sector

The effects of HIV/AIDS on rural households in Africa are now fairly well-documented (Allison and Seeley 2004; Béné et al. 2005). One effect is the loss of productive adult labour as the person with HIV/AIDS falls ill and other household members take on, as far as possible, the additional labour burden of the sick person's work whilst also caring for him or her. With household resources under increasing pressure, first incomes, then savings, and finally household assets, are all used to meet the costs of farm or fishing inputs, consumption items and care of the sick (medicine, transport and special food needs). Children are withdrawn from schools to work on smallholdings, but the harvest is poor because of reduced labour and purchased inputs. Younger children or orphans go to stay with grandparents or other extended family, putting enormous strain on those households to meet even subsistence needs. Credit (wherever it was available) is no longer extended to the sick person's household (because of stigma and inability to repay) whilst grandparent-headed "remnant" households fail to meet asset or age criteria for loans, thereby further tightening the poverty trap.

This generalized scenario also applies to fishing households. AIDS-affected families with fishing assets (such as nets, engines or boats) may sell these to meet more immediate needs, thereby eliminating a future source of income for other household members or current income from loaning out fishing gear. Men who no longer have the strength necessary for fishing may switch to female dominated sectors, such as fish processing. In doing so, they may displace women whose options for employment in fishing communities are very limited, but include commercial sex work. In Africa, where rural household livelihoods are diverse, fisherfolk are often farmers too, with women dominant in the latter role. These activities are complementary, and seasonal differences allow one to finance inputs to the other. A reduction in fishing income therefore has a direct effect on farming income too.

Africa's industrial fisheries and fish processing sub-sectors are also affected by HIV/AIDS, through the loss of skilled labour and high levels of absenteeism due to sickness or compassionate leave to attend funerals. In addition, Allison and Seeley (2004) highlight potential impacts on natural resource management, pointing out that HIV/AIDS undermines the long-term perspective needed for successful co-management in fisheries whilst deepening the effect of overfishing, and desperate poverty may drive fisherfolk towards increasingly short-sighted and unsustainable practices; and indigenous knowledge about resource management may also be lost, along with crucial capacities in universities and public services.

HIV/AIDS in the artisanal fisheries sector has much wider impacts too. Mobile and part-time fishing populations, moving in and out of the sector, along with interactions through

The research problem, literature review and the conceptual framework

trade and markets, permit HIV and its impacts to be spread outside the sector. The multiplier effects of the loss of productive labour and declining productivity may affect rural incomes more broadly. HIV/AIDS, moreover, threatens the ability of the fisheries sector to supply fish and fish products to the low-income groups for whom it represents an important and affordable source of animal protein and micronutrients.

Some fisheries generate important foreign exchange and the loss of those revenues has wider economic effects. The diversion of household and government resources to tackle the epidemic reduces the funds available for other services and investment in productive activity. As school attendance drops, there is a long-term effect on human capital. The cycle of deepening poverty can be a cause of increased migration in fishing communities, and lead to recourse to sex work, which combined, may contribute to a wider spread of HIV/AIDS.

3.4 Performance in the domestic and economic domains

Performance in this study is defined as the women's success at securing the livelihoods of their households and will be measured in terms of performance in the domestic and economic environments. Their performance in the domestic sphere will be assessed using variables including access to and control over assets and resources, access to water, health, and educational facilities, felt needs and constraints, government/NGO assistance, livelihood strategies and religious affiliations (Ellis 2000; Adepoju and Mbugua 1997; Dasgupta 1993; Kabeer 1991).

In the economic domain, the financial performance will be analysed in terms of capital structure, years of experience, competence, reliability or trust, resource utilisation and innovation (Fitzgerald et al. 2004). In assessing the women's performance, the fish marketing system in Ibaka is conceptualised as one of social relationships or networks. An anthropological approach, regarding the market as a social system with women as actors, is therefore adopted, as they form a strategic link between producers and consumers (Alexander 1987). Categories of traders, their careers and the social institutions that link them into complex trading networks and social relationships will be analysed (Alexander 1998). Explanatory variables including income levels, trading activities, financial sources, assets, savings, long-term investments, boats financed, relationship with suppliers, colleagues and customers, education, children's education, managerial competence and membership of social organisations will be used (Niehof et al. 2005; Alexander 1987, 1998).

Gender as Performance

Societies all over the world have norms that are highly valued, and which everybody has to follow. Such norms were called models for good behaviour by Clifford Geertz (1973). According to Linda Macdowell (1997), gender ideologies are mainstream assumptions about gender-appropriate behaviour in a given context. Gender is therefore a performance (Overa 2003). The way one carries out one's role as a man or a woman varies from one place to another, between cultures and social strata. Connecting the performative aspect of gender to the theory of power and gender by Massey (1994), it becomes obvious that one can either be a woman or a man in different ways, depending on one's position in relation to others in a

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certain context. Our ways of being a woman or man may also change if we change our location in the local power geometry, or if we move into a different context. Such concepts as positionality and gender as performance are thus useful in understanding the gender relations in different places, and how livelihood strategies are constructed for differently positioned individuals.

The social construction of masculinity in fishing and femininity in the market is central in the perception of what good behaviour for men and women in Ibaka. As observed in fishing communities in Ghana, a man in Ibaka would be looked at as feminine if he was engaged in fish trade. In the words of Nukunya (1969:155): 'No man, not even a bachelor would do any of these things.' The male fish trader would simply not be regarded as a "proper man", because then he would be unable to fulfill one of the men's expected roles in the community, providing fish for women's pots and trade, and men in Ibaka, as well as in other fishing communities do not regard fish processing and trade as admirable or acceptable male behaviour.

However, some women fish traders who have invested in boats, nets and outboard engines have dabbled into the male domain, not only indirectly through microcredit, which does not require close physical contact with the rough fishermen at the beach, but as both owners and managers of their crew. In that capacity, they have to manage the economy and organization of the business, negotiating the prices, fish sharing formulae and payment of the crew (Overa 2003). Their roles are equally viewed as out of place by men, therefore they have to behave in such a way that the fishermen can accept them in the male power arena. The women fish traders in Ghana have been reported by Overa (1995) to have succeeded in maneuvering for space in the male domain by combining the tough and aggressive role of leadership masculine behaviour of men with more feminine strategies like giving the men good food for their fishing trips, nice clothes during festivals, and through flattering and cajoling, and showing a motherly concern towards crew members and their families.

In summing up the discussion on gender-correct behaviour structure, in choosing the livelihood activities and strategies they adopt and the manner in which they perform their economic activities, women or men may transcend traditional barriers to find new and acceptable ways of performing their gender.

3.5 The Conceptual Framework

Based on the discussions in the previous sections, this research assumes that issues related to the fish trade, intra-household dynamics, and the social and institutional environments, all interact in a web of complex inter-relationships that influence the livelihood and food security of the women fish traders' households. In further streamlining the analytical process, the DFID (2000) 'Sustainable Livelihoods' Approach (SLA) framework and that of Scoones (1998) were adapted, which results in the framework in Figure 3.2. This framework enables an understanding of the fish traders' situation in the dynamics of sustaining livelihoods in Ibaka. It presents a holistic view of the mediating structures and processes that affect the fisheries business and determines the adaptive strategies adopted by the women fish traders. It builds on the strengths the women are viewed as possessing, the five sets of livelihood assets essential

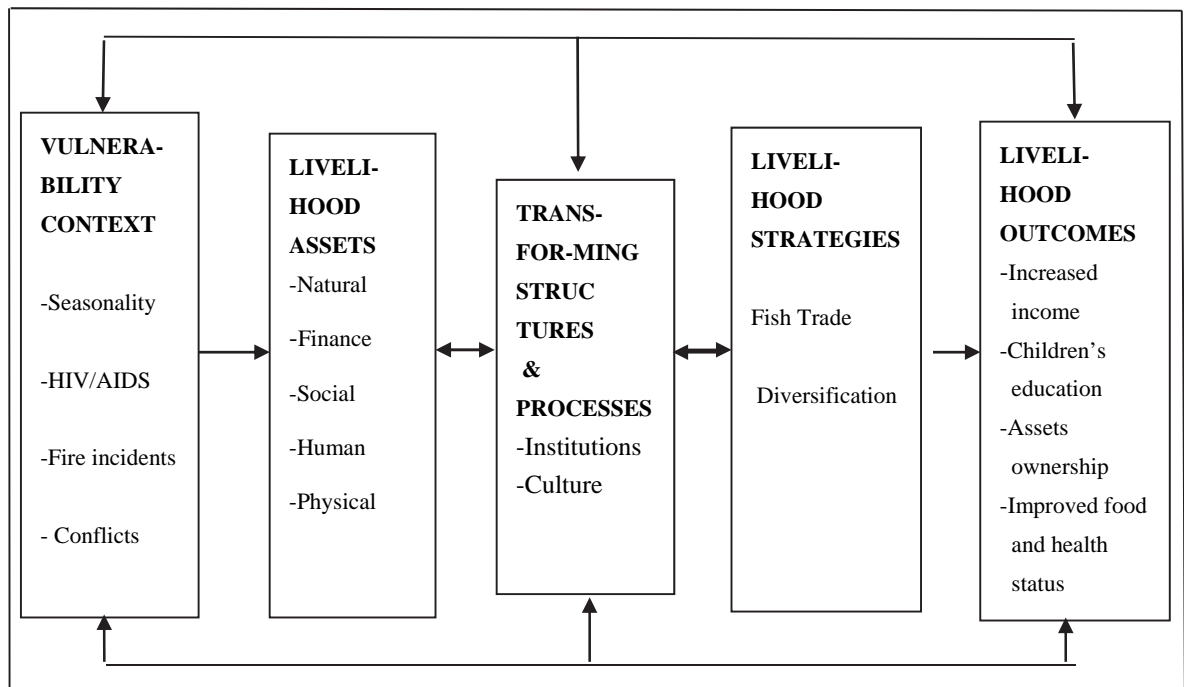
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for successful livelihood strategies: the human, natural, financial, social and physical capitals. The contexts in which they operate involve a number of threats, mediating structures and processes that render them vulnerable to negative livelihood outcomes.

The threats include seasonality, frequent fire incidents, HIV/AIDS, and conflicts, while the mediating structures and processes include their culture, formal and informal institutions. Their livelihood strategies are viewed as sustainable if they can adjust to the threats, structures and processes without compromising their future ability to survive shocks. A sustainable livelihood strategy therefore would lead to positive livelihood outcomes such as increased incomes, reduced vulnerability, and increased food security.

The SLA has been used before on poverty reduction projects aimed at reducing vulnerability in communities engaged in small-scale fishing, fish processing and trading (Neiland and Béné 2004; Stirrat 2004), in management of small scale fisheries (Allison and Ellis 2001) and its principles have been applied in fisheries development policy and practice (Allison and Horemans 2006). The approach seeks to identify what the poor have and to strengthen people’s own inventive solutions and aims at meeting various consumption and economic necessities, coping with uncertainties and responding to new opportunities at household levels, social networks and the community. It is actor-oriented, place-focused and context-specific.

Figure 3.2: Relationships between livelihood indicators and vulnerability context of women fish traders



Source: Adapted from Scoones (1998) and DFID (2000)

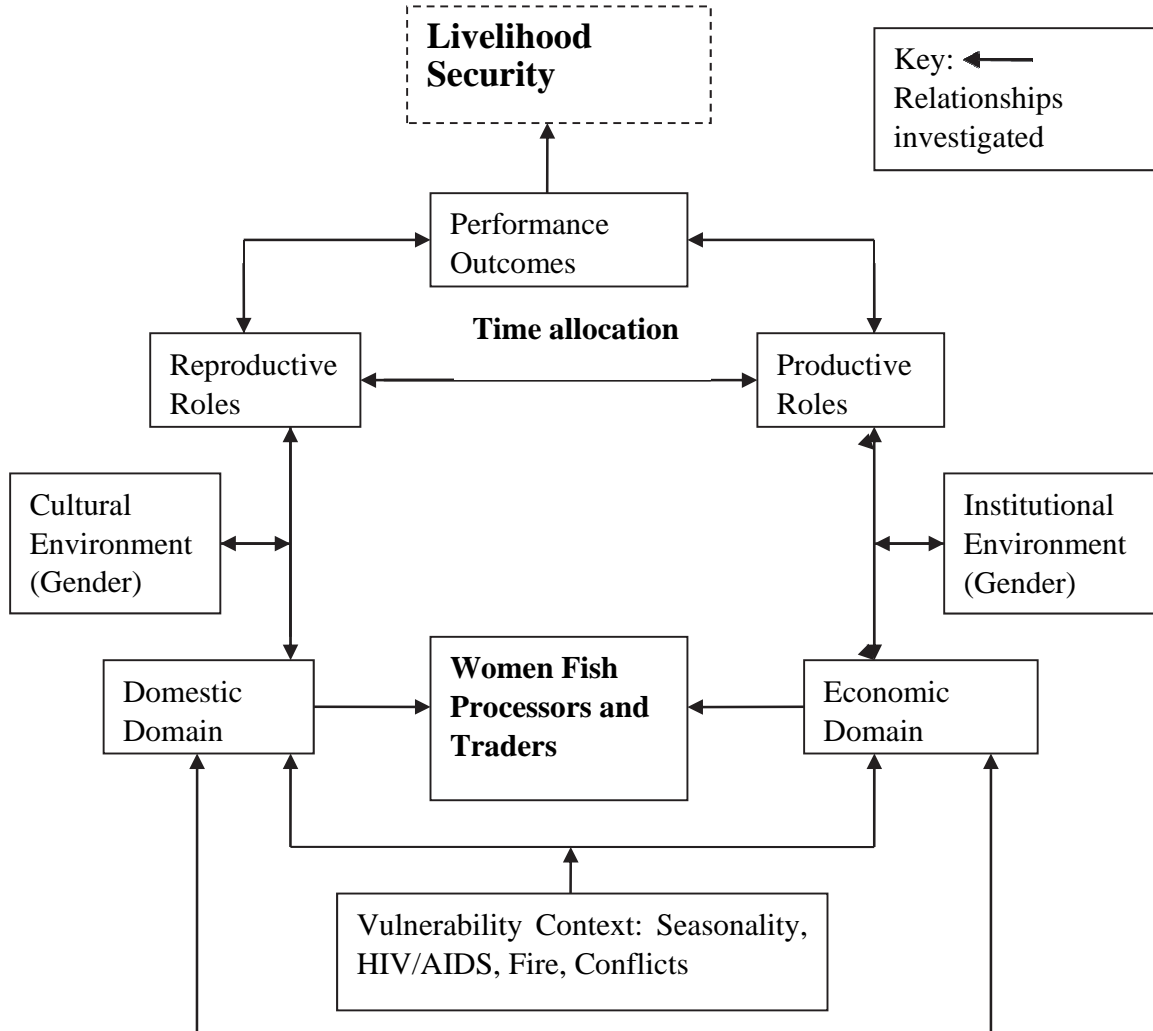
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Institutional constraints in this study include the lack of, or non-implementation of relevant policies, the absence of appropriate structures, limited availability of infrastructural facilities, information, access to markets, finance and extension services, while cultural constraints include those related to gender, religion, norms and beliefs, ethnicity, polygamy and patriarchy. Seasonality is also a contextual (vulnerability context), because it affects prices, employment opportunities and food availability is one of the greatest and most enduring sources of hardship for people in Ibaka, as obtains in other fishing communities in Nigeria (Adewale and Ikeola 2005).

In order to situate this study in the domains where the strategic productive and reproductive activities which women carry out in their households take place, the framework in Figure 3.2 was further adapted to produce the model shown in Figure 3.3, which is the framework for this study. It shows how factors such as the cultural and institutional environments interact with the domestic and economic domains where the fish traders operate, the relationships between the two domains, the vulnerability context which they have to grapple with such as seasonality, fire incidents and HIV/AIDS, and the livelihood outcomes expected from all these interactions. The model was developed to guide the research and to answer the research questions, and illustrates the hypothesis that the women's successful performance in both the domestic and economic domains result in the livelihood security of their households.

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Figure 3.3: Relationships between women's performance in the domestic and economic domains.



Performance in this study is defined as the women's success at securing the livelihoods of their households and will be measured in terms of financial performance (amount of working capital, income level, assets and savings), competence (years of experience), flexibility, innovation and entrepreneurship. In assessing the women's performance the fish marketing system in Ibaka is conceptualised as one of social relationships or networks. An anthropological approach, regarding the market as a social system with women as actors, is therefore adopted, as they form a strategic link between producers and consumers. Categories of traders, their careers and the social institutions that link them into complex trading networks and social relationships will be analysed. The concept of transaction costs, the cost involved in moving fish along the marketing channel will also be used to

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complement the trader's concept. These include costs incurred on transportation, storage, processing, sorting, and collecting market information, financing, and transaction risks.

Women's performance in the domestic sphere will be assessed using variables including gender division of labour, access to and control over assets and resources, access to water and other facilities, felt needs and constraints, government/NGO assistance, household's health status, livelihood strategies and religious affiliation.

In considering the basic elements as presented in the framework, the key question to be answered in the study is:

Given the socio-economic conditions, seasonality and the livelihood resources and assets possessed by the women, what livelihood strategies do they adopt in Ibaka, and how do the culture, formal and informal institutions mediate their ability to carry out such strategies and achieve (or not) the expected outcomes?

The specific research questions and sub-questions were formulated as follows:

1. What are the livelihood strategies of the women fish traders in Ibaka?
 - a. What resources do the women fish traders have access to?
 - b. What assets do they possess or have access to in order to sustain their livelihoods?
 - c. What economic activities do they carry out?
 - d. What is the vulnerability context within which they operate while trying to sustain their livelihoods?
2. What cultural and institutional challenges do they face and what strategies do they use in adapting to these challenges?
 - a. What cultural challenges do they face and what strategies do they adopt in overcoming them?
 - b. What institutional challenges do they face and what strategies do they adopt in overcoming them?
3. What factors influence the livelihood strategies adopted?
4. What is their performance in the domestic and economic domains?
 - a. What is their performance in the economic domain?
 - b. What is their performance in the domestic domain?
5. What is the inter-relationship between their performances in the two domains?
6. How susceptible are they to HIV/AIDS?

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Research design and methodology

The general objective of this study was to gain insight into the performance of women fish marketers in their households given the current institutional and cultural constraints, and the implications for food and livelihood security. Thus, the study analyses the way women fish marketers engage in a portfolio of activities to meet a multiplicity of objectives. The analysis included how such objectives change over time, the constraints faced in the process of livelihood generation, the way institutional and cultural factors affect this process, and whether HIV/AIDS has any effects on their livelihood security. This chapter presents the research approach used in the study and the different data collection methods employed to answer the research questions. In the first section of this chapter the research design and the methodological issues are discussed, followed by the different phases of data collection in Section 4.2, a description of the methods used in the data analysis in Section 4.3, ethical considerations and the problems encountered in the process of the study while Section 4.4 is a description of Ibaka, the research site.

4.1 Methodological considerations and research design

A cross-sectional study design was employed. The very nature of the livelihood processes, especially the intra-household dynamics and interhousehold relations, informed the use of an approach that combines both quantitative and qualitative research methods.

4.1.1 Quantitative versus qualitative approaches

A combination of quantitative and qualitative research methods was used because of their complementarity (Schrimshaw 1990). Both quantitative and qualitative research have philosophical foundations, characteristics and techniques that make them ideal for the exploration of some of the research questions yet less adequate for the investigation of others.

Quantitative research views reality as singular, static and existing as an independent entity. It tends to focus on reliability and replicability, and aims at producing generalisations about causal relationships between aspects of the phenomenon of the study (Chapman and Maclean 1990; Schrimshaw 1990). Qualitative research methods on the other hand are directed towards gaining an understanding of the meaning of people's everyday lives from their own point of view. Consequently, the qualitative research approach provides detailed descriptions of particular social settings under investigation, as well as explanation of the behaviour that

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occurs (Narman 1995). Qualitative research also recognises that people do not construct meaning in a vacuum, but within a socio-cultural environment in which they live. Thus, they construct meanings through interaction and negotiation with others (Chapman and Maclean 1990).

Many researchers have increasingly appreciated the combination of qualitative and quantitative data collection methods because of their complementarity. The combined processes help improve the accuracy and validity of the research findings (Ashley et al. 2003). Scrimshaw (1990:88) stated that “the methodological concepts of validity and reliability provide a common foundation for the integration of quantitative and qualitative techniques”.

Quantitative research was used to answer questions dealing mainly with the descriptive and theoretical objectives of the study whereas qualitative research method was used to help in unveiling sensitive data, for example gender roles, income, and HIV/AIDS. Such data is needed to provide a better understanding of the role of women in the household, in influencing rural livelihood security. The survey was used to quantify the data. Key informant interviews, focus group discussions and case studies were used to collect qualitative data. Community profiles were compiled through data collected from secondary sources. Additional research tools will also be used to supplement the main instruments used to collect data. These include literature review, observation, field notes and unstructured interviews of some members of the communities in the study area.

To capture various aspects, meanings and functioning of people’s livelihoods a variety of methods was used. Data related to demographic characteristics, resources used and change, livelihood activities, constraints and the perceptions of the impacts for which it was important to understand in the study population, were collected through the survey. The survey also allowed for quantitative analysis and generalizations to be made. Qualitative ethnographic methods were used to explore, understand and interpret livelihood processes and how these have changed in a situation of institutional and cultural constraints in the fishing community; people’s opinions and perception of these processes, power relations, as well as people’s behaviour and experiences in responding to institutional and cultural constraints.

The different research methods used enables us to answer the following questions:

1. What are the livelihood strategies of the women fish traders in Ibaka?
2. What cultural and institutional constraints do they face and what strategies do they use in adapting to the constraints?
3. What factors influence the strategies adopted?
4. What is their performance in the domestic and economic domains?
5. What is the inter-relationship between performances in the two domains?
6. How susceptible are they to HIV/AIDS?

Due to the nature of the fish trade, an in-depth understanding of the process could best be achieved by using the qualitative approach. This is supported by several proponents of qualitative research who argue that qualitative data preserves the chronological flow, assesses local causality and provides useful explanations that may not be arrived at by means of quantification methods (Crabtree and Miller 1992; Miller 2000; Straus and Corbin 1990).

People’s livelihoods are dynamic and historical processes have an influence on the way current livelihoods are pursued. A qualitative approach was therefore selected to provide this temporal process and understand issues of power and control in the household. As Crabtree

and Miller (1992) noted, a qualitative approach explores meanings, perceptions, relationships, associations, and patterns based on personal experience of the phenomenon being investigated. According to them, a case study would examine most if not all the aspects of a particular event (case or series of cases). Additional qualitative data were collected through in-depth interviews of key informants, focused group discussions and observations.

4.1.2 Gender perspective

Given the importance of gender in determining access to, and control over household assets and resources, the study was structured in such a way as to ensure the generation of sufficient data to establish the nature of the gender relations in the fishing community. Furthermore, key informants included both men and women to obtain perceptions and interpretation of issues from both perspectives. For analysis, household headship provided one of the analytical categories. Through a gender perspective, the study examined social relations between men and women and how this affects the gender division of labour, access, use and control of household resources, as well as differences in coping and survival mechanisms, and vulnerability to HIV infection and AIDS impacts.

4.1.3 Validity and reliability issues

Validity refers to the “degree to which scientific observations measure what they purport to measure” (Scrimshaw 1990:88). Reliability (also referred to as replicability) is “the extent to which scientific observations can be repeated and obtain the same results” (Scrimshaw 1990:89). The validity and reliability of research depends on the methodological approach used. In order to avoid the limitations of surveys on one hand and the case study approach on the other, a strategy to combine the two methods was used. Qualitative methods are acknowledged to enhance validity, while quantitative methods are considered to be better in terms of reliability or replicability (Scrimshaw 1990).

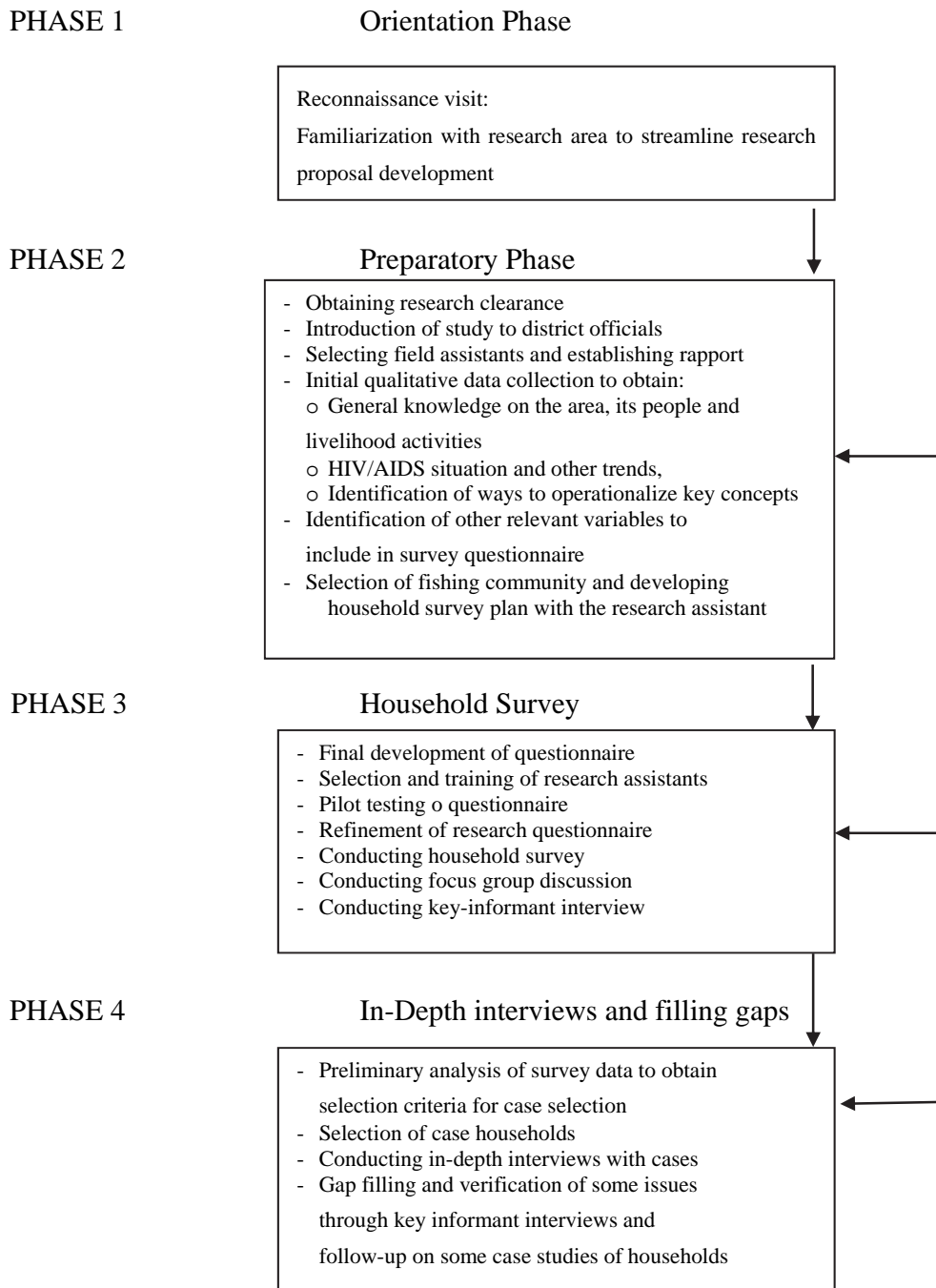
The study was designed in such a way that there was triangulation in data collection, through which information was obtained through different research methods and techniques. As Marshall and Rossman (1995:146) put it “designing a study, in which multiple cases are used, multiple informants or more than one data gathering technique can greatly strengthen the study’s usefulness for other settings”. Furthermore, the research procedures ensured that the various data collection methods were used correctly. These procedures included systematic area and subject sampling; a sufficiently large survey sample; pre-testing of survey instruments; careful selection and thorough training of interviewers; supervision of interviewers and cross checking of data throughout the survey; careful and systematic selection of case study respondents; gender considerations in the selection of various respondents and focus group participants; gender considerations in the scheduling of interviews and FGDs; follow-up visits to clarify or obtain more information; and personally facilitating interviews and group discussions.

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4.2 Phases of the field work

A summary of the four phases of the research process is present in Figure 4.1.

Figure 4.1: Phases of the fieldwork



Research design and methodology

The first phase involved a reconnaissance visit to the study area, conducted in December of 2005. Its main objectives were a familiarization with the research area and obtaining relevant local governments level data for refinement of the research proposal. In addition, the data obtained was later used in sampling and selection of the fishing community in which the survey was conducted.

In phase two, efforts were geared towards establishing rapport with the relevant authorities and obtaining research clearance. It included an initial qualitative exploratory phase that started in January 2006 and lasted for three months. The data collected provided general information about the study area and insight about the fish marketers' situation. It also helped to identify factors that could pose constraints in the community. Additionally, the second phase was used to operationalize the concepts and determine relevant variables that were included in the questionnaire for the household survey. In this phase major sources of constraints were also identified. These facilitated the selection of candidates for the life histories.

In phase three, a household survey was conducted during the months of October to December, 2007 in the fishing community. This was followed by preliminary analysis of the survey data to identify key issues that needed more in-depth investigation in order to adequately answer the research questions. This information facilitated development of selection criteria for the cases.

The fourth and final phase mainly focused on the use of in-depth interviews to investigate key processes and relationships using case studies drawn from the three fish marketing groups. However, additional focus group discussions (FGDs) and key informant interviews were conducted to fill in missing information or whenever new questions arose.

4.3 Methods and techniques for data collection

Qualitative and quantitative data collection techniques were used for the study as mentioned before, in order to provide a richer base for analysis. In this study, the two methodologies were viewed as complimentary, each contributing to a better understanding and interpretation of the data generated and to the ultimate findings (Breitmayer et al. 1993). Secondary data were collected and reviewed. Primary data were also collected using focus group discussions, in-depth key informant interviews, survey, case study, as well as participants' observation.

4.3.1 Secondary data

A detailed content analysis of relevant reports and documents provided secondary data. These documents included extensive and diverse literature by local and foreign researchers, civil servants, consultants, civil society activists and journalists, and included both published and unpublished information. Use was also made of materials collected from the Nigerian Bureau of Statistics, The National Action Committee on AIDS (NACA), the State Action Committee on AIDS (SACA), national and international NGOs as well as Community Based Organisations (CBOs). Development plans, baseline surveys, environmental impact assessment reports, project reports, and other reports written by the World Bank, FAO, UNAIDS, UNDP, and USAID also supplied ample information.

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Baseline information on general physical and demographic characteristics and social structures, ethnography, changes in intra- and inter-household relations, livelihood activities, migration, women's status over the millennia, and importance of linkages between gender, culture and institutions. Other basic information studied focused on the coastal and inland artisanal fisheries, fish production, fish marketing strategies, alternative livelihood activities, HIV/AIDS community risk factors, perceived impacts of HIV and AIDS on livelihoods, and existing support mechanisms.

Data thus collected were used to place the primary data in a more historical and regional perspective, enabling generalizations not so much to a larger population but to theoretical propositions that might be applicable to wider populations.

4.3.2 Primary data

Primary data were collected using methods and techniques such as household survey, sampling, focused group discussions, case studies, in-depth interviews, and observation.

Household survey

In this study, the woman fish trader was used as the unit of analysis and for the survey. Information collected included her personal characteristics, position in the household, membership and headship of her household, and her economic activities. Information about migration and members physically absent at the time of the survey, but who could play a significant role in decision making, as well as in supplying household necessities was also collected. Members that had permanently migrated were not included but any regular income or support that they provided to the household was included as part of the household's resources.

A draft questionnaire was developed to address issues on which quantitative data would be collected using focus group information collected during the reconnaissance visit and the preparatory phase. Through consultations with supervisors, the instrument was refined. The improved draft was pilot tested among 15 households outside the sampled group of respondents for which the instrument would be used. Following the pre-test, the questionnaire was adjusted to improve clarity and relevance of some questions as well as the flow and sequencing of questions (see Appendix 1). However, prior to pre-testing the survey instrument, the following procedure was used to select the fish trade groups and households to be included in the sample.

Sampling

A multi-stage sampling technique was used in the selection of the study area. The fishing community was purposively selected using the following criteria;

- Fish Production as the main source of business;
- Over 60 percent of the women in the area must be involved in the fish trade;
- Larger volume of fish produced and sold than in other fishing communities in Akwa Ibom State.
- Remoteness and lack of services and infrastructure.

Research design and methodology

This resulted in the choice of Ibaka, being the most qualified community with all the attributes. After the selection of the fishing community, the area extension officer and the leader of the women fish traders facilitated the visit and proper briefing of the Chief of the community about the study. Thereafter meetings were organized with the other leaders in the community. At the meetings, the objectives of the study and issues which would ensure a smooth data collection process were discussed. The latter included the role of the leaders of the women fish traders in developing an inventory of the different categories of fish marketing groups in the community and mobilizing individuals to participate in group discussions and relevant logistics.

The extension officer helped in taking an inventory of the relative number of women involved in the different marketing groups and after receiving the inventories, the population density of the households involved in the different groups was used to calculate the required sample size. Depending on the number of households involved in the different kinds of fish trade, 30 to 40 households were selected per group. All the households were purposively selected and efforts were made to include households that had a member with prolonged illness or HIV/AIDS in the past, according to key informant information. This was to increase the chance of including HIV/AIDS affected households given: (i) the difficulty and ethical implications of identifying such households beforehand and (ii) the absence of records on HIV/AIDS due to the non-existence of HIV testing facilities in the rural areas.

The consequence of this method of selection is that the results are not representative for the population of the fishing communities in the Niger Delta region. The main similarities between Ibaka and many other fishing communities in the Niger Delta is that the same species are landed and women are fully in charge of the fish trade, while the dissimilarities are that Ibaka has a high population of immigrants because of its location at the confluence of two rivers, nearness to the high seas and the Camerouns. It also has easier access through a paved road, and is on the trade route between Nigeria, Cameroun, Equatorial Guinea, Central African Republic and Gabon.

For each sample household, using the revised questionnaire, face-to-face interviews were conducted with the fish trader. However, she would consult with the spouse or household head on matters that she was not conversant with during the course of the interview. A total of 150 fish marketing households were sampled but information was collected from 100 households (40 for bonga marketers and 30 each from the big fish and crayfish marketers), because some households were physically inaccessible (too remote) while others refused to participate when they knew the study would not bring immediate benefits to them. The survey method was used because of its appropriateness in answering the *what* and *how* questions with regard to the type of resources that households are endowed with, changes in these resources, effects of cultural and institutional constraints as well as the magnitude of the impact of the constraints on their livelihood strategies.

Data collected during the household survey included demographic information, household characteristics and resources, access to resource, the fish trade, constraints, livelihood activities including household production, reproduction and consumption activities. The institutional and cultural constraints related to the fish trade, health of household members, food status and coping strategies, access to services, as well as changes in household assets,

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resources and production activities in the three years prior to the survey. The questionnaire is presented in Appendix 1.

Focus group discussion

The focus group discussions (FGDs) provided an opportunity to gain a deeper understanding of the prevailing community operations as well as the socio-cultural and political environment in which the study was conducted. The technique brought out collective experience and opinion from a wide range of people. Five group discussions were conducted in phases 1 and 4 (Figure 4.1) and another five FGDs were conducted as part of the household survey to obtain additional qualitative data to enrich the analysis and interpretation of quantitative data. A total of 108 fisher folk comprising (72 women, 11 children and 25 men) participated in the group discussions. Of these, three were mixed, comprising male and female participants, one was children only, one was male and five were female. Table 4.2 summarizes the composition of the groups and the specific topics discussed in the different FGDs.

The FGDs were conducted for 60 to 100 minutes with five to ten participants. The checklist used to guide the group discussions is presented as Appendix 2. Separate discussions were conducted for women and men except in a few situations (Table 4.2) when general information was required, and in one case, when a mixed group discussion was organized to deal with contradictions that had arisen during the separate group meetings. The segregation of the groups by gender was intended to provide a free environment for self expression. Local leaders and fisheries extension officers facilitated the selection of FGD participants. These included individuals (some of whom were household heads that had participated in the survey) with local knowledge and experience with respect to the selected discussion topics. Participants were selected based on their levels of involvement in the fish value chain either at the production level, the beach or the fish market in the community.

Information obtained through focus group discussion included: livelihood activities and strategies, food security and vulnerability; fish marketing activities and gender division of labour in the fishery activities; household resource access, use and control; gender relations; HIV/AIDS related effects and coping mechanisms; cultural norms relating to reciprocity, collective action, exclusion; as well as the type and nature of informal and formal organizations supporting the fishery business.

Table 4.2: Groups composition and the topics of the FGDs

Phases of study	Composition of groups	Topics discussed	Number of groups	Total women	Total men
Orientation and Preparatory phase	Mixed (Men and Women)	Community resources, opportunities, livelihood activities and strategies; Food security- status and indicators; Institutional support, Cultural norms, Major problems in the area, HIV/AIDS: Magnitude of problem	2	9	12
Survey, Focus Group discussion & In-depth interview	Women	The fish trade; Livelihood and food security issues- access to resources and services (working capital, credit, extension services, health, markets, water, education; Household resource allocation and decision making, division of labour. Cultural and institutional constraints HIV/AIDS issues	5		
Focus Group Discussion	Children	Roles in the fishery business Access to services (health, education and other community support services) Perceptions of the fishery business	1	6	5
	Mixed (Men and Women)	Division of labour and seasonality in the fishing business; Household resources allocation and decision making, power relations; Relationship with fish traders Characteristics of food secure households	1	9	6
	Men	Roles in the Fishery business Access to services (health, education and other community support services); Perceptions of the fishery business	1		7
	Total		10	78	30

Key informant interviews

There are different types of interviews that can be used in qualitative research (Fontana and Frey 1994). They may be informal or formal and vary in depth with their use depending largely on the type of information required. Interviews with selected informants were conducted in a rather unstructured manner because the interview guidelines were not strictly followed, but rather, allowed the respondents to take the discussions in directions that interested them,

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However, I always tried to bring the conversation back to the central research themes. The checklist used to guide the interviews is presented in Appendix 3.

A total of nine individuals were selected as key informants and they included: officials in the ministries of Agriculture and Health, government extension officers, local government community development and administrative officers, members of Community-based Organisations, community leaders and other people involved in the fishery. The rationale for conducting interviews with these people was to obtain expert information on specific issues relevant to the study, given their knowledge, experience and professional backgrounds.

The different key informants were purposively selected based on their recognition as:

1. Government officials, researchers and state/local government technical staff, depending on their expertise, schedule of duties and availability at the time of the interviews;
2. Representatives of community organizations based on positions in the organizations, activities involved in, willingness to share experiences and availability at the time of interview;
3. Local leaders by virtue of their position as leaders in the study areas and availability at the time of interview.

Case studies

The case study method was used to generate qualitative data to explore the dynamic and complex social relations and processes within and between fisher-folk households. Mitchell (1983:192) defines a case study as “a detailed examination of an event (or series of related events) which the analyst believes exhibits (or exhibit) the operation of some identified general theoretical principle.” While case studies can be used for generating hypotheses (Flyvberg 2006), Yin (2002) argues that a case study can be defined as an empirical inquiry that investigates a phenomenon within its real-life context. Using Yin’s definition, case studies were used to examine fish trading in the rural context. I interviewed a number of women traders from the three different trading groups to determine how they carry out their fish trade, their level of access to, and usage of resources, changes in gender and social relations, causes of vulnerability and the constraints to the fish trade.

This method facilitated a deeper understanding and synthesis of issues such as culture, social relations, perceptions, attitudes and opinions of people in relation to the fish trade, the constraints, HIV/ AIDS and how these affect livelihoods in the community. In addition, the methodology provided insights on the challenges of generating sustainable livelihoods in a situation of poverty, isolation, neglect, seasonality, HIV/ AIDS and the strategies people use to deal with these challenges. In the process it was also possible to gain an “emic” perspective through interpretations of the different phenomena by the people themselves.

Furthermore it was possible to explore how different individuals and groups have managed their business over the years. As Mitchell (1983) argues, case studies serve to establish the validity of a particular theoretical principle, not by achieving statistical significance but by their ability to elaborate the principle through confronting it with the complexity of empirical reality. Qualitative techniques used included open interviews, participant observation and in-depth life history interviews.

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Identification of case study households was facilitated by the Fisheries Extension staff and the leader of the big fish women's marketing group (nicknamed First Lady). The selection of households for the case studies were purposively made using the following criteria: first, the settlement of the household in Ibaka for more than five years, and secondly, the presence of a full-time fish-trading woman in the household. Preliminary analysis of the survey data had indicated correlations between the amount of working capital, number of children in school, assets status, and the performance in the fish trade. Therefore, these factors were used as additional selection criteria. In-depth interviews for case study households were guided by a checklist presented in Appendix 4.

Observation

Gittleson and Mookherji (1997) argued that observations provide a good opportunity to get detailed and real insight in actual situations including "actions, conversations, and physical descriptions". Observation as a technique was therefore used to get a better grasp on processes of livelihood generation, the type, nature, state and use of household assets, the way the fish market works, both at the beach and the village market. In addition, the technique was used to triangulate information collected with other methods and/or obtained from different data sources, particularly regarding gender division of labour in the households. A checklist was used as a guide to look out for factors and processes on which critical observations were necessary. The observations were recorded in a field notebook. In addition to what was observed, information was also collected through listening to conversations and discussions during informal visits to the community or whenever any of the groups organized an interactive session for us.

4.4 Problems with data collection and ethical considerations

At the beginning one of the most significant problems was a lack of trust and fear of disclosure of information to other colleagues in the trade or to the local authorities for taxation purposes. These were overcome with the help of the Fisheries Extension Officers living and working in the community. Also, I had managed an IFAD-funded and UNDP-assisted micro-finance programme for the fisheries sub-sector which disbursed loans to fish production, processing, marketing and all other fishery associated economic activities in the coastal communities in my state during the period 1992-1995 as a staff of the Nigerian Agricultural and Cooperative Bank (NACB). Ibaka was one of the benefitting communities, and after some initial interaction a few of the beneficiaries who were still doing business in Ibaka remembered my name.

The fact that they associated me with the microfinance project of the bank, no matter how long before, brought another problem of expectancy which was initially difficult to solve until people were made to understand that I was on a different mission entirely and not representing the bank. The issue of compensation of the participant's time, opportunity cost and/or the transport costs incurred to participate in the study, however, still had to be dealt with. We therefore agreed with them to provide refreshments during the group discussions. In addition we supplied them with pencils, erasers, rulers and exercise books for their school age children as well as detergents and bar soap for their laundry, and they were happy.

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Access to information and respondents was particularly difficult in the household survey because there was also no data to facilitate the stratification of households into the different fish trading groups. In addition, obtaining of marketing data was difficult given the lack of documentation and limited recall on the part of the fish traders and sometimes the very small capital outlay involved. Sometimes, the traders calculated their fish in baskets of fresh fish processed, number of sticks of bonga or bags of crayfish handled in place of capital outlay. Estimation was complicated because of wild fluctuations in costs of the products, influenced by the availability which was in turn dependent on the weather conditions.

The study was conducted during one full cycle of peak and lean seasons in order to have a good picture of household food security and data on household incomes and expenditure during the two seasons, since the main source of household income is fishing, processing and trading in fish. Additionally, during the study period, prices of petroleum products were increased considerably by the Nigerian Government and this affected the prices of all other goods in the country, including fish. Moreover, there had been a general trend of increasing poverty in rural areas which presented the challenge of disentangling the effects of cultural and institutional constraints from other existing environmental stresses.

Due to the political campaigns that were going on at the time, people had high expectations from outsiders coming to collect any kind of information from their community. They hoped that the investigations were about identifying those most in need so that they could later benefit from programmes, as had been the modus operandi used by certain NGOs working in the study communities. Consequently, many people wanted to participate in the FGDs or be selected for the survey so as to have their names and/or those of their children recorded. This made some respondents' information sometimes doubtful. The use of a variety of methods to triangulate information was helpful. To partly deal with the problem of bias during the selection of FGD participants, the local leaders were always asked to help in the selection.

4.5 Data analysis

Both quantitative and qualitative data analyses were used. The adoption of a multi-methodology strategy was useful in the interpretation and understanding of the key research issues. Quantitative data was used to put figures on what existed and what was representative and to provide a context for the cases. Qualitative data facilitated answering of the "how and why" questions by providing explanations (and sometimes even generating new question) to the variations captured in the quantitative data, thus producing a richer analysis.

Households to be surveyed were categorized into three groups for the purpose of quantitative analysis: those of bonga traders, the second, of big fish traders, and the third, the crayfish traders. In addition, comparisons were drawn between the female-headed and male-headed households, taking into account their wealth status, the level of performance of the woman fish trader and her autonomy. Some of the women fish traders often oscillate between selling different kinds of fishery products in fishing communities, depending on the season, as observed by Niehof et al. (2005). They are also known to venture into farming and other income generating activities. The definition of a fish trader in this study therefore refers to a trader who devotes more than sixty percent of her productive time every day to fish trading

activities and fish related matters. Also, in differentiating the traders into three groups the following criteria were used:

- Dedication to trading mostly on specific species or group of species of fish during a full cycle of one year (1 peak and 1 lean season)
- Dedication of most (over 60%) of their time every day to the specific fish trade
- Investment of most of her resources in the fish trade as an economic activity.

4.5.1 Quantitative data analysis

Survey data was first subjected to preliminary analysis using SPSS version 17.1. Quantitative techniques such as descriptive statistics and nonparametric statistics were used to understand the relationship between different variables. Percentages were used to determine and explain proportions, while means were mainly used to determine differences in household asset ownership and usage, fish trading practices, differences in age and educational qualifications as well as performance in the domestic and economic domains.

It is noteworthy that although the major factors were analysed separately, and attempts were made to control for variations in other factors as far as possible, interactions between factors influencing livelihood processes and performance could be complex and therefore all the interactions could not be eliminated completely.

4.5.2 Qualitative data analysis

The qualitative data analysis started from the field and continued until the end of the research. It comprised both context and content analyses and was manually done.

Context analysis

The subjects' livelihoods were generated within a given environmental context, often characterised by insecurities, risks and opportunities. In order to understand the ways in which livelihoods in different contexts were shaped, therefore, this environment was analysed. To situate respondents' performance in the domestic and economic domains and link them to their historical context, the cultural and institutional contexts that influence the fish traders' ability to secure their livelihoods in a situation of cultural and institutional constraints were analysed.

Content analysis

All in-depth interviews were taped after obtaining permission from the respondents. The data from the tape recorded interviews were manually transcribed. Some of the data from group discussions, participants' observations and interviews were analysed and interpreted in the field or at the point of interaction with the respondents. A greater bulk of the data collected from life histories and interviews were subjected to a process of careful and systematic analysis. Data reduction and categorization, to identify the key themes and sub-themes, were combined with reading and re-reading of the recorded material to determine meanings, explanations and relationships between the concepts (O'Leary 2004). In addition, continuous

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reflection on insights gained during the data collection process facilitated interpretation and the linkage of livelihood outcomes with performance in the economic and domestic spheres.

4.6 Reliability issues

Just as other researchers have encountered problems in the field, I was no exception. The initial problem was a general lack of trust on the part of the informants. This was quickly dispelled when I encountered a few women who had benefitted from a micro-finance programme I had managed when I was working with the Nigerian Agricultural and Cooperative Bank. Fortunately for me, it was through that programme that the leader of the women fish traders at Ibaka beach got her first fishing equipment, a 25 Hp Yamaha outboard engine. This paved the way for a less stressful fieldwork because she was the one who then took me to the village chief, the elders and gate-keepers as well as the women fish traders in the community.

Access to the respondents and obtaining information was difficult during the period that the household survey was conducted because most of the women were either at the beach, busy processing fish, or at the market selling the fish. Since it was difficult to catch people in their houses getting accurate information became a problem, because there was no privacy and people would not give exact figures on their trading in the presence of others. Also there were no records of transactions whatsoever, so all information given were off-hand. Due to these problems proxy figures are used in this study for incomes, savings and years of experience.

4.7 Operationalisation

In this section I will discuss how each of the constructs that form the framework of analysis is operationalised in the questionnaire. Since the livelihood strategies are at the core of the research, the discussion will start from there. Subsequently, the rest of the constructs such as personal characteristics, resources, loans, working capital, assets owned, savings, number of children in school, and incomes will be discussed.

Table 4.3 shows the variables in the domestic and economic domains, their operationalisation and the corresponding statistical measurements used. It also shows the measures of the inter-relationship between performances of the variables in the two domains.

Table 4.3: Definition, operationalisation and measurement of variables

Performance of women fish traders	Variables	Explanation of parameters
Domestic Domain	Sex of household head	Male = 1 Female = 0
	Age in years	Range between 23 and 55
	Education	Education = 1 No education = 0
	Marital Status	Not married = 0 Married = 1
	Number of children	3 - 8
	Husband's occupation	Fisheries-related = 1 Non-fisheries related = 0
Economic Domain	Amount of working capital	>150,000 50,000- 150,000 < 50,000
	Sources of working capital	Bank/Govt Relation/Friend Osusu group See Chapter 7 and Table 7.3
	Loans	Yes =1 No = 0
	Membership of osusu groups	Yes=1 No= 0
	Savings	Yes =1 None = 0
	Assets ownership	Yes= 1 No= 0
	Years of experience	3 groups of intervals
	Income	3 groups of intervals
Influence of performance in economic domain on the domestic domain (Inter-relationship)	HH time allocation	Time demands and allocation between the economic and domestic activities
	Number of women with children in school	Children in school = 1 No children in school = 0
	Health status of household and information about HIV/AIDS	See Chapters 2, 4 and 7
	Feeding status	See Chapters 4 and 7
	Housing type	See Chapters 4 and 7
	Energy use for cooking	Kerosene = 1 Firewood = 0
	Energy use for lighting	Generator = 1 Bush lamp / candle = 0

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4.8 Description of Ibaka, the research site

The study was conducted in Ibaka in Nigeria. It was selected based on the research topic after a reconnaissance visit in 2006 and a review of available information in 2007 using the following criteria:

1. The presence of a thriving *bonga*, big fish and crayfish fisheries operated by a large population of artisanal fishermen and crew from Nigeria, Cameroun and Ghana.
2. The presence of a dynamic fish trading business operated by indigenous women and those from other ethnic groups and regions.
3. Accessibility of the community by land and closeness to a major population centre.
4. Availability of secondary information

The decision to choose only one community in this study was based on the need to gain an in-depth knowledge of the process and strategies through which the women fish traders and their households generate livelihood portfolios in the context of sustained cultural and institutional constraints. The nature of the research was such that it required gaining insights into the performance of fish traders in the domestic and economic spheres, gender relations in the households, and the structure and functioning of the fish market, among other things. The few studies on the fisheries of the area has focused on the fish taxonomy of the waters by B. S. Moses and others, the effect of development policies on the fishery of the area by Ikurekong (2005), and the impact of the IFAD assisted Artisanal Fisheries Microfinance Project on the community by Okoko (2009). A brief description of Ibaka community is provided below to give a fair idea of the fishing community.

Ibaka

Ibaka is one of the oldest and biggest fishing communities in the Niger Delta and is located in Mbo Local Government Area of Akwa Ibom State. It is on the western bank of the Cross River estuary where Mbo River (a short tidal river) joins the Cross River estuary before it empties into the Gulf of Guinea and the Atlantic Ocean. It is situated between co-ordinates 8° – 9° E and 4° - 5° N and is a major commercial centre and the biggest and most dynamic of the 70 fishing ports in the coastal areas of Akwa Ibom State (Ikurekong 2005). It is situated in Mbo Local Government Area (LGA) which is surrounded by Uruefong Oruko LGA in the west and south while the Mbo River borders it on the West and North. It has an estimated population density of about 94,627 and serves as a trading outpost comprising three recognized sections: Ibaka, Utan Udombo and Mkpang Utong. It is accessed by land through Enwang by a paved road which is quite dilapidated a few kilometers towards Ibaka, and by waterways through the Mbo River. It bears some broad characteristics reminiscent of other permanent coastal fishing communities within the Niger Delta Region; the distinguishing characteristic being the high number of international and national immigrants who have moved into the area for fishing, trading and other purposes.

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Figure 4.2: Map of Mbo Local Govt Area
Source: EIA Report, 2006

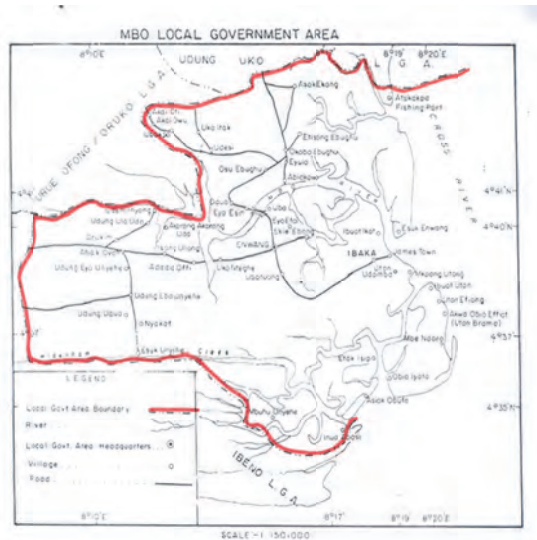
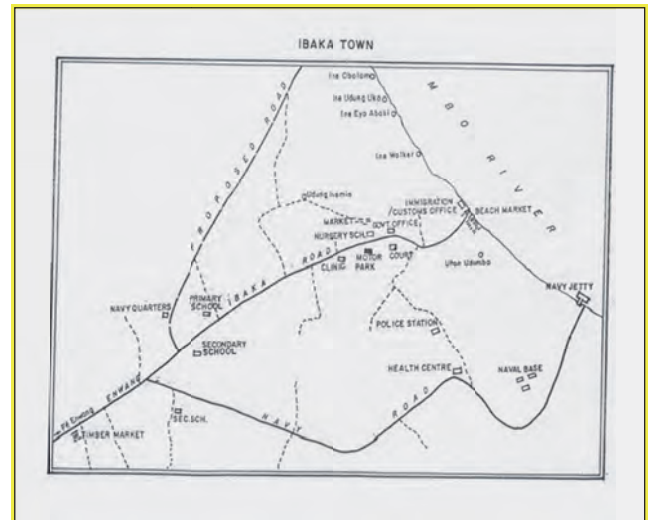


Figure 4.3: Map of Ibaka
Source: EIA Report 2006



Apart from the air-route from Calabar, the capital of a neighbouring Cross River State, the proximal disposition of Ibaka to the maritime precincts of the Republic of Cameroon offers the shortest access to Nigeria's eastern neighbour. In view of this attribute, Ibaka offers a platform from where passengers and goods are ferried to other countries notably, Cameroon, Equatorial Guinea, Gabon and the Central African Republic. With the broadest portion of the country's continental shelf off this part of the Gulf, the importance of Ibaka to Nigeria's fishing industry cannot be over-emphasized. Its accessibility by land and its closeness to a major population centre is helping to accelerate its growth and commercial importance. Also, its status as a permanent fishing settlement at the intersection of major waterways and with an all-season road linking other parts of the State and indeed the country is facilitating its fast development into a major trading centre.

Apart from the fisher-folk, Ibaka also has its complement of traders who bring in various goods ranging from food items, household utensils, items of clothing, electronics, machinery parts, to fishing inputs, artisans who provide goods and services to the diverse inhabitants of the area; young men and women who operate restaurants, bars, hotels, and viewing centres, and commercial sex workers.

Population and ethnic composition

Various categories of fishermen are found in the settlement, ranging from the local river fishermen fishing in the Cross River estuary and adjoining mangrove creeks for river Catfish, Tilapia, Crustaceans (crayfish) and Mollusks (predominantly periwinkle), through migrant marine fishermen who mostly target marine pelagic clupeids and crayfish, to commercial industrial trawler operators. Original indigenes of Ibaka are of Uda stock while the other

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settlers are of Effiat stock. Other ethnic groups represented include the Oro, Ibibios, Efiks, Ibos, Ilajes, Ijaws, as well as fishermen from Ghana and Cameroon.

Demography

Ibaka has an estimated population of over 5,000, 49 percent of which are males and 51 per cent females, which corresponds with the regional and national average. Over 45 percent of the population is directly involved in the fishery. Children and youths constitute about 65 percent of the population while about 35 percent are the middle aged and elderly. About 65 percent of the marriages are polygamous (National Census 2006; EIA Report 2006). The housing situation in Ibaka shows that about 10 percent are constructed with cement walls and zinc roof, 25 percent with planks and zinc roof, while 65 percent are constructed with mud and thatch roofing. This is in contrast with the habitation of temporary fishing camps and semi-permanent camps where shelter is typically of makeshift thatched houses made from *Nypa* palm leaves and mangrove branches. There are at least 300 households, most of which have at least one woman dealing with the fish trading business. There are no figures for the HIV prevalence rate for the Local Government Area but Akwa Ibom State has a prevalence rate of 4.2 (FMOH 2007).

Religion and culture

The majority of the people are Christians, but belief in the existence of ancestral influences to which they offer sacrifices exists. Commonly worshipped deities include “*Uteng Uda*” (head of all deities), “*Atabong*” (god of festivities) and “*Ewemme Mmong*” (god of war and protection against external aggression). Other prominent gods include “*Anyi- Isi*” (god of good yield of crops) and “*Anyi-Ekong*” (god of conception of barren women). Various cultural festivals are observed in the study area. These are *Nkuho*, *Ekong*, and *Ekpo nyoho* during the months of November and December, and *Okor*, celebrated at the beginning of the dry season. These are in addition to the Christian celebrations of Easter and Christmas.

Ibaka, like other communities in the state is organized in a hierarchical order, with culturally prescribed roles targeted at ensuring the maintenance of social control and order. The people are essentially strong willed and perceptive with a mentality and behaviour that is strongly linked with their cultural background. For example, they may refuse to fish on Sundays, and so-called evil days on the sea (25th December and 1st of January). Findings also revealed that Effiat fisher-folk prefer to dry harvested fish in the day time, while crayfish is dried overnight. Their belief is that smoked crayfish never gets dried in the day time no matter the intensity of the fire applied to it.

Social organizations

Mbo LGA is a well knit society with cooperative tendencies. The people also speak with one voice and bear allegiance to whatever groupings to which they are affiliated. The people of the study area bear allegiance to the policies enunciated by the Mbo Public Relations Committee. At the local intra-community level are the village council, youth and women councils. Also

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important are the age grades, church societies and ubiquitous credit and thrift groups (*etibe* or *osusu*).

Important cooperative groupings in the fishing community include the all-female Ikpoto market association which is composed of more than 70 registered members. There is also a central cooperative association subscribed to by indigenes of all the fishing settlements, with an operational office at Ibaka, while Ibuot Utan, a part of Ibaka community, has a thriving crayfish association. These cooperatives and *etibe* or *osusu* groups provide a lot of financial assistance to members at little or no interest rates and group members generally offer material, social and financial assistance to needy members, rendering moral support during members' joyous and sad occasions.

Political administration

In addition to the modern pattern of political and administrative control operating in the country, the Mbo Local Government Area also has a well organized community development council and village councils but even though the youths are incorporated into the executive arm of the village councils, the women are not. These village councils handle both traditional and non-traditional issues. Appointments into various traditional, civic and political positions are either by inheritance, consensus or nomination.

Economic activities

The fishery provides the main source of livelihood because the economic activities of the whole population are either dependent on or related to it. There is a high level of dependence on natural resources for livelihood sustenance. Fishes, shrimps, crabs, oysters and periwinkles are extracted from the rivers and the sea, while the firewood utilized for the fish processing is fetched from the mangrove forests. Fishing is a male-dominated enterprise; female fishing activity is limited to gathering of periwinkles and crabs from the shallow swamps. Women specialize in processing of raw fish (drying or smoking) and trading in fresh and smoked fish, and other fishery products. Their other activities include subsistence farming of yams, cassava and vegetables for household consumption, and selling of raw and cooked food, clothes, bottled drinks, and provisions. The commonly processed fish species in Ibaka are shown in Table 4.4.

Table 4.4: Commonly processed fish species in Ibaka

Scientific Name	Common Name	Local Name
<i>Sardinella maderensis</i>	Flat Sardine	<i>Ekpai</i>
<i>Ethmalosa fimbriata</i>	<i>Bonga</i>	<i>Ibat</i>
<i>Pseudolithus senegalensis</i>	Croaker	<i>Obok otoho/ Broke marriage</i>
<i>Arius species</i>	Catfish	<i>Akpakot</i>

Source: Survey 2007-2008

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Apart from fishing, the men are also involved in timber logging, marine transportation, excavation of sand from the creeks and river for sale, cutting of firewood for sale, construction of fishing boats, and the sale and repairs of fishing equipment and accessories.

Migration

A lot of immigration occurs in Ibaka because of its location, the fishing and other commercial activities going on there. Immigrants also benefit from the economic opportunities offered by the abundant diversity and natural resources in the area. Various patterns of migration have been identified within the research area: seasonal and permanent migration patterns. According to the Akwa Ibom State Socio-Economic Study Report (2005), the State is 99.8 percent inhabited by indigenes with local variations in a few areas depending on inherent associated pull factors. Notable areas are the coastal settlements, like Ibaka, that attract fishermen from other parts of the country as well as neighbouring countries and border towns where artisans and traders from contiguous states, by virtue of their proximity, migrate to in search of a livelihood. However, while some of the observed migrations are permanent, a few are seasonal.

Oil exploratory and exploitation activities in other parts of the Niger Delta have virtually pushed out fishing families, forcing them to move into coastal settlements like Ibaka, some permanently, to continue in their traditional occupation. These sets of migrants originate from parts of the region where the ecosystem has been completely polluted by oil production activities, resulting in the death of marine life, and migration of fisherfolk to other coastal areas. Also, the relatively rich and broad continental shelf located within the region has attracted many fishermen into the region, many of whom have more or less carved a permanent niche in the area. On the other hand, some fishermen mainly from the western region of Nigeria engage in seasonal migration occasioned by seasonality of fishing. Fishermen from the region also migrate seasonally out of the region to “fishing ports” in search of large schools of fish, where temporary settlements are created and shelters are made from mangrove branches while thatch roofs and walls are constructed with *Nypa fruticans* leaves. Fish abundance generally determines the location and length of stay in all circumstances, while ecological conditions determine availability of fish. Therefore, any imbalance in the ecosystem elicits a migratory pattern in the region.

Housing and quality of life

The study area exhibits both the linear (along the water front) and nucleated settlement patterns. On a proportional basis, there is a higher percentage of tenants than landlords due to high immigration rates. The houses are multi-tenement and are deemed not to be adequate in size for various households. Only very few of the households possess modern facilities or conveniences. Also more than three quarters of the community members are regarded as poor, in terms of not being able to provide for basic needs. Income-expenditure patterns are highly skewed (more than 75%) towards education, food and health care (EIA Report 2006). Expenditure on food is targeted mainly at cassava derivatives (*garri* and *fufu*).

About 45 per cent of the indigenes, comprising the partially educated and the youth, are jobless or under-employed (EIA Report 2006). Reasons for poverty in the study area are attributed to the hostile natural environment and low per capita income traceable to lack of

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industrial activities, lack of basic infrastructural facilities and the attitude of the oil prospecting and servicing companies which exploit the resources of the community without assisting in its development. The high poverty status in the fishing settlement was also attributed to the high cost of tradable items occasioned by the exorbitant cost of fuel (at least ₦100.00 per litre) needed to power the fishing and transport boats (personal communication). A comprehensive market survey undertaken in the course of the study revealed that apart from fish, crayfish and timber products, the prices of other items required for quality life were higher for Ibaka than for Uyo, the Akwa Ibom State capital.

Infrastructure

With regard to physical infrastructure, the main artery road into the study area from Enwang (the headquarters of Mbo L.G.A) is dilapidated and in a state of disrepair. The very poor state of the only link road into the study area is more pronounced within Ibaka – leading to the water-front. The other settlements are accessed only by boat, with engine or paddle, through the Mbo River, while intra-communal routes are seasonally flooded earthen roads. Most public transportation to the study area is by motorcycles, motor vehicles and by paddled canoes or boats with outboard engines, through the waterways. Intra-communal mode of transportation is by bicycles, motorcycles and trekking. The only main market in the study area is the daily market at Ibaka. This is a major fish wholesale market located about one kilometer from the beach which had recently been rehabilitated by the Local Government. The major commodities sold are smoked crayfish and *bonga* which attract a lot of patronage. Ibaka beach is also a commercial centre because at the beach market people come from within and outside the state to purchase various types of fresh big fish. Fresh *bonga* are also landed and sold here as well as smoked crayfish, which are brought in by fishermen by boat and sold to wholesalers who then take it to Ibaka market for sale. Trade in fisheries resources has increased the flow of traffic to the area and buses and taxis overloaded with fish and crayfish are a common sight.

Ibaka does not enjoy electric power supply from the Power Holding Company of Nigeria because the infrastructure that used to transmit the power is dilapidated and in a total state of disrepair. There are telecommunications networks provided by Zain, and MTN in Ibaka and neighboring fishing settlements.

There is no government supplied potable water source in the whole study area. However, a few private, commercial boreholes exist to provide water for domestic and other uses. The relatively better-off indigenes purchase the water at ₦2 per litre, while the less well off use water from unhygienic, shallow, hand-dug wells, the liquid contents of which are separated from the soil with rusty wrought-iron containers. There is a government-owned health centre in Enwang, about three kilometers from Ibaka, but the facility lacks drugs, enough qualified personnel, and an HIV testing facility. In Ibaka there is a privately owned orthodox medical clinic, which the women consider too expensive, as well as a traditional medical centre that enjoys some patronage. The majority of the inhabitants patronise the patent medicine stores in Ibaka, thus resorting to self medication for solutions to their health problems.

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Education

Mbo LGA has 27 primary schools and 5 secondary schools. Of these the study area has only 3 secondary schools (1 community owned, 2 privately operated). There are also only 5 primary schools in the study area of which one is a public school established in 1914 (EIA Report 2006). In the community-owned secondary school, staff emoluments and school infrastructure are provided by the community because the government has not offered any assistance. Ibaka also has one privately operated primary school while the neighbouring three settlements each have a functional migrant fishermen children's school. Ibaka community also boasts five privately operated nursery schools. Generally, the schools have poor infrastructure and even in their dilapidated state, there is not enough space for the teeming number of children eager for educational advancement. Reports also reveal that teachers in the migrant schools hardly report in the schools to perform their statutory duties (Personal communication). The reason may be attributed to the high cost of transportation to and from Ibaka daily and lack of social amenities which would encourage the young teachers to live in these communities. Attempts made by the village council of Mbendoro and Ibout-Utan to provide free dwelling houses (from community funds derived from landing and haulage fees from Ibaka jetty) has not met with commensurate responses from teachers, who still complain of lack of basic social amenities.

Government agencies' presence

There are several Federal, State and Local Government establishments in the community and its environs. The Federal establishments include:

- A naval base, not yet fully developed but which has been there for over ten years;
- A police post
- An immigration service office
- Customs and Excise department
- A Plant quarantine Office
- The Nigerian Drug Law Enforcement Agency (NDLEA)
- A landing jetty.

These offices are located in Ibaka because it is the gateway to the famous oil-rich Bakassi Peninsular which was a subject of dispute between Nigeria and Cameroon. It also serves as an exit and entry point for traders in various goods between Nigeria and Equatorial Guinea, Cameroun, Gabon and the Central African Republic. The State Government establishments include a primary health centre, primary school, public toilet and a Fisheries Development Office while the Local Government has provided a market and a motor park for the evacuation of both fresh and smoked fish, other goods and people to the hinterland.

Health, HIV and AIDS

The project area lies within the environmentally sensitive Niger Delta wetlands. Environmental conditions are generally poor with most areas being water logged. Malaria is reported as the number one problem in all communities. Other commonly mentioned ailments include gastro-enteric problems (diarrhea, amoeboid dysentery and typhoid), tuberculosis and upper

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respiratory ailments (EIA Report 2006). Helminthiasis, malnutrition, measles, convulsion and fungal infections (e.g. ring worm and eczema) are also reported. Appendicitis, pile (hemorrhoids) and hernia are said to be rampant and are thought to be associated with the peoples' occupation and eating habits. Of less importance are meningitis and hepatitis, while cases of HIV infection have been reported with at least two full-blown AIDS cases seen by one of the private clinics in the past five years. One of the cases was said to have been brought home from Lagos at an advanced stage and died soon after. Cases of gonorrhoea, syphilis, genital warts and other sexually transmitted diseases are also reported (EIA Report 2006).

Although sexual activity is high among the people within the other smaller fishing communities in the area, with high rate of teenage pregnancies, commercial sex workers are said to be absent. However, Ibaka, which serves not only as a commercial centre with constant influx of visitors (traders, tourists, etc.), but also as a military base and the nearest land contact for offshore oil company workers, has been infiltrated by commercial sex workers and a few brothels have sprung up to support the trade (EIA Report 2006, Personal communication and observation 2007/2008).

Within the fishing settlement where people have no access to potable drinking water, under-five diarrhea prevalence is very high, with a diarrhea period prevalence (based on a two week recall) of 186 cases per 1000 population of under five children. However, in the more coastal area of Ibaka, incidence of diarrhea was said to have declined dramatically following the introduction of commercial borehole water supply to the area, causing the people to depend less on stream and river water for domestic purposes. High incidence of upper respiratory tract problems are linked to the peoples' occupation of fish processing and preservation which utilises heat and smoke from fuel wood for drying of fish and crayfish (EIA Report 2006).

Protein energy malnutrition, manifesting as kwashiorkor with its characteristic 'pitting oedema', is common among under-five children. This is often compounded by repeated bouts of diarrhea and, in the absence of proper medical facilities and services, especially in the fishing settlements; the result is high infant and under-five mortality rates. In fact, according to the Medical Director of one of the two existing private clinics, it can be said that up to forty percent of children die before their fifth birthday. It is generally reported that the people of the area have a poor attitude to institutionalized medical services. This is largely the result of a combined effect of deeply entrenched traditional beliefs, lack of adequate health education, poverty, and poor access to modern health care services. Self medication and recourse to traditional healers is the norm while visit to clinics come only as the last resort. The result is a high case of fatality, even for easily preventable and treatable cases. Ibaka has one Mystical and Trado-Medical Healing Home, which appears to receive good patronage by the people, who are apt to attribute spiritual causes to most problems. There are many Traditional Birth Attendants (TBAs) in the area, some of which are church-based. This is because any complications during childbirth are attributed mostly to spiritual causes and the first port of call is the church where prayers are offered. A lot of women therefore end up giving birth there, thus the use of TBAs by the churches. When questioned, one of them, a non-indigene member of the Apostolic Church, claimed to have received her 'gift' from the Holy Spirit. She said she would appreciate any training or assistance that could be offered her to enable her improve her skills.

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Public health policies and services

Although health personnel do visit most of the communities, including the fishing settlements, the success of campaigns such as National Immunization Days (NIDs), is often hampered by poor publicity. Hence, success at immunization against most childhood diseases in these communities is estimated at about 60 percent. This much was corroborated by the Clan Head of Ibaka, during a focus group discussion at his residence. He further reported that most adults could not take part in the last immunization campaign against yellow fever because of the timing of the exercise. Fishermen could not afford to stay back from their fishing trips to wait for the health officials while the women simply carried on with their processing and trading activities. The only health promotion programmes provided in the community have to do with pregnancy, breastfeeding and HIV, and these are mostly available at the only existing health centre in Enwang, near Ibaka. The Forward Operations Base (FOB) of the Nigerian Navy also carries out some HIV and AIDS campaign programmes sometimes. There are no activities of a health-related NGO. The need for greater presence of government institutions dealing with HIV and AIDS in the area was stressed in view of the commercial nature of Ibaka.

Private commercial enterprise

In a situation where there are insufficient infrastructural facilities in the community some private entrepreneurs have come to the rescue. The following services and commodities are thus provided through private enterprise:

- Commercial vehicles for the evacuation of the fishery products to the markets within and outside the state, and for the importation of food, equipment and other necessities of life into the community;
- Transport boats for the movement of goods and people to other fishing communities dotted all over the coastline and creeks;
- Mechanical repair shops;
- Shops for the sale of spares for outboard engines, fishing inputs and accessories;
- Water boreholes for the supply of water for households;
- Electricity, where available;
- Post-primary school facilities;
- Nursery and primary schools facilities;
- Primary healthcare facilities;
- Patent medicine stores;
- Ice;
- Churches.

Environmental problems

A lot of environmental degradation occurs in the study area, caused by massive gully erosion, deforestation, oil spills, rising water levels, flooding and massive coastal erosion. These problems are attributed to environmental trends. The people, however, claim that activities of oil prospecting and oil service companies tend to aggravate the naturally occurring

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environmental stresses. The effects of environmental degradation cited by respondents include; losses of biodiversity, increased waterway sedimentation, widespread soil degradation, destruction of natural rain forest, and health problems occasioned by the toxic effect of oil pollution on food, water and atmospheric air. All the above environmental stresses result in higher and sustained poverty levels due to reduction in (cray)fish harvest and poor crop yield. There are many oil prospecting and oil servicing companies operating off the coastline of the study area including Mobil, Elf, Addax, Moni-pulo and Echo-Drill. Respondents are emphatic that these companies would have to be more responsive to the problems of their host communities if they want to remain relevant as good neighbours.

Also, the area experiences a high level of environmental pollution. Feacal materials are commonly seen littered around beaches because people defeacate into the creeks, swamps and streams. The high rate of water pollution, coupled with constant wash-off of sewage related contaminants into surface water sources result in a corresponding increase in health risks for people that use shallow wells water for domestic purposes. Other sources of pollution of water sources include effluents from crude oil drilling platforms, oil spills and saline water intrusions during high tides. Many oil companies, apart from carrying out oil drilling activities in the area are mindlessly flaring associated gas as sighted as close to the area as Tom Shott Island, a few kilometers away. Although the characteristic pungent smell of the marine environment is a constant feature in the area, the greatest source of atmospheric pollution comes from the continuous flaring of natural gas from production platforms of these companies, with a constant release of noxious gases such as SO₂, NO₂, CO into the atmosphere. The result is acid rain, the continuous and fast corrosion of zinc roofs in peoples' houses, exacerbation of respiratory problems and contribution to the problem of global warming and climate change.

Fire hazards

The area is prone to fire disasters as evidenced by a very recent fire outbreak at the *Ibaka bonga* fish terminal in which property worth millions of Naira was lost. The use of flammable materials for construction of the living quarters and smoke houses, the non-seperation of the smoke houses from living quarters, coupled with a business environment that centres around fish processing and preservation by drying and smoking, are mostly responsible.

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The women fish traders in Ibaka and their trade

5.1 Introduction

The major species of fish landed and traded at Ibaka are the *bonga* (*Ethmalosa fimbriata* and *Sardinaella* species), the big fish, comprising mainly the croakers (*Pseudolithus* species), catfish (*Arius* species) and barracuda (*Sphyraena barracuda*), and the crayfish (*Palaemon* species). Women fish traders in Ibaka are therefore divided into three groups depending on which of the fish species they trade on. Within these groups are also three categories of fish traders: small-scale, medium and large-scale, according to the amount of working capital each trader is able to mobilize.

The women fish processors and traders in the Ibaka fishing community have matri-focal household arrangements, where most of the women live with their children, separate from and in different locations from their husbands, and so have to take care of their families and sustain their livelihoods. They struggle to achieve this faced with constraints, such as lack of infrastructural facilities, access to resources, information, and insufficient cultural and institutional support, which together with the cultural norms, beliefs and values pose challenges, leading to the adoption of diverse livelihood strategies. They are wholesalers who either buy fresh fish at the beach for direct resale, fresh *bonga* for processing and sale, or already processed crayfish for sale to retailers from the cities. The fact that there is acute shortfall of fish supply in Nigeria ensures the continued survival of the artisanal fish trade, and the gendered nature of the fish processing and trading activities in Ibaka ensures regular incomes for the women.

During the fieldwork period of 2007-2008, I visited Ibaka regularly and conducted a household survey, focused group discussions and in-depth interviews with women fish traders and other stakeholders in the community in order to collect information on the fish traders, their personal experiences and their livelihood strategies. During the household survey, eleven women, comprising three small-scale, four medium-scale, three large scale traders and a fish mammy were identified to participate in the case studies.

The women fish traders' livelihood strategies and success or failure at sustaining their households depend on a number of factors, such as the assets and resources they own or have access to, the structures and processes that mediate their choices of livelihood strategies and the vulnerability context within which they operate. In the first part of this chapter, personal information about the fish traders are discussed to give a fair idea of the personal characteristics of the three groups of women fish traders. Basic information such as the gender of their household's head, marital status, husband's occupation (for those married), age and years of education are presented and discussed. Subsequently, accounts of the life histories of

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the eleven women fish traders purposively selected outside the survey sample, from the different categories of the women fish traders are presented. Through these life histories the traders give an account of their lives, their education, marriage, economic activities, challenges faced, their achievements and perceptions about life in the community and HIV/AIDS. They also take us through the whole process of the fish trade, from apprenticeship, recruitment, through the livelihood strategies, challenges and outcomes. These insights will help in answering the question of how the women have managed, through the fish trade, to sustain the livelihoods of their families. The life histories will also enhance our understanding of whether there are differential impacts of institutional and cultural constraints within the fish trade groups, and the implications of these impacts on their livelihoods and households.

It is worthy to note that in Ibaka, as in other fishing communities in Southern Nigeria there is a gender division of labour in the artisanal fishery business. The men harvest the fish while the women are involved in the fish processing and fish trade (Williams 1999). Other studies in West Africa, South America and Southeast Asia also demonstrate the gendered nature of economic activities in the informal economies of different countries such as in agriculture and petty trading (Clark 1994; Babb 1998; Seligman 2001).

The literature on women in West Africa reveals the multiple ways in which gender informs women's work situations, access to productive resources, allocation of labour, household survival strategies and resources allocation, as well as experiences of economic processes (Amadiume 1987; Fakpohunda 1988; Awe 1992; Alamu 1993; Bortei-Duku and Aryeetey 1995; Williams 1999; Overa 2001; Adewale and Ikeola 2005; Chiano and Tsujii 2007). Key issues that emerged include the significance of property rights regimes in denying women access to production resources; the manner in which ideologies of sexuality, morality and status impinge on women's economic opportunities by limiting their mobility in public space, earning and resource allocation patterns in rural households, and the way in which class, education and ethnicity generate a diversity of experiences among and between groups of women across the coastlines in the sub-region.

This body of literature provides detailed accounts of women's experiences of work, economy and development, and an enriched understanding of gender and the interplay of cultural and economic factors in multiple contexts around the world. However, a relatively unexplored aspect of gender and the economic process, particularly in the developing world, is the effect of institutional and cultural constraints on the women's work-life course and the ways it differentially shapes women's material realities over time. The purpose of this chapter therefore is to use the life histories to show how the fish trade is a gendered activity, a livelihood strategy for the sustenance of household livelihoods in a fishing community, and the ways in which choices of livelihood strategies are affected by institutional and cultural constraints.

5.2 Personal characteristics of the women fish traders

Survey data for this study was collected from the *bonga*, big fish and crayfish traders in Ibaka. Some of the basic information collected is discussed below.

5.2.1 Marital status and types of households

Three categories of women were identified in Ibaka, those married and living with their husbands (22%), those married but living alone with their children (61%), and unmarried women who were either single or widowed (17%). Hence, households were categorised according to headship as: *de facto* female-headed households, predominant in Ibaka (61%), male-headed households (22%), and households headed by single and widowed women (17%). The high percentage of *de-facto* female-headed households can be explained by the fact that many of the women are involved in polygamous marriages, with visiting husbands, living either in Ibaka or other fishing communities with other wives. Absence of husbands is also caused by seasonality, because during the peak season some of the husbands who are fishermen follow the fish along the coastline and settle temporarily in other settlements until the peak season subsides.

There appears to be no relationship between the marital status and the fish species the women trade in. This is probably due to the fact that most marriages, being polygamous, have bi-local residence. So that even though a woman fish trader may be married to a fisherman, if they are not living together in the same location she cannot have access to the fish he is landing. Women therefore source for their fresh fish supply from their own trusted clients, whom they acquire through inheritance from their female relations, friends and/or through social networking. Therefore, in the fish trade getting fish to sell does not depend on whether one is married and living with the husband, married but living alone with her children, single or widowed. Likewise there is no relationship between the sex of the household head and the type of fish traded. The fish trade is a gendered activity and passed down from mother or aunty to daughter or niece, sustained through a network of trusted suppliers and customers, acquired through maternal titles, female friends, associations and business arrangements. Also because of polygamy, most of the women are *de facto* household heads. Polygamy gives rise to families that are basically matrifocal, where women live with their children, separate from their husbands, taking their own decisions and earning and disbursing their money without undue interference from anybody (Uchendu 1995).

5.2.2 Husband's occupation

It could be expected that the occupations of the fish trader's husband would influence the kind of economic activity involved in by the wives, but in the fish trading business in Ibaka this is not the case. No significant relationship was observed between the occupations of the husbands of the women fish traders and the fish species traded in. This relates clearly with the way polygamy affects the fish traders. Even though about 74 percent of the women had husbands in the fishing business, it did not affect their choice of fish species to trade in, neither did it affect

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their choice of clients or customers. As polygamists the fishermen could be living in different fishing communities and selling to the wives they live with, while the other wives have to find their own clients. Therefore, since most of the married women live alone, or are single or widowed (78), they cannot depend on a husband for a regular supply of fish. The choice of the type of trade basically depends on such other factors as the trade group the mother or aunty belonged, whether they inherited the title, or which trading group their friends belong to - if they were introduced into the trade by friends. Their experience in the particular trade, the amount of working capital they are able to mobilize, their skills and the type and level of social capital and networks inherited and cultivated also count. However, for the few poor, young and newly married fish traders, being married and living with a husband who is a fisherman matters a lot, because he could be her only source of fish at the beginning of her trading business, especially if she did not inherit any concessions or clients from her mother or relations.

5.2.3 Age

The ages of the women fish traders interviewed in Ibaka ranged between 23 and 55 years. About 38 percent were 35 years and below, 44 percent were between 36 and 45 years while 18 percent were older than 45 years. Of the three trade groups the crayfish traders had the highest number of young traders (83.3%), followed by the *bonga* group (27.5%). Only 6.7 percent of the big fish traders were below 36 years of age. The big fish group has the oldest members (36.7%), while 67.5 percent of the *bonga* women fish traders were between 36 and 45 years of age. The relationship between belonging to a particular fish-trading group and age was significant (H-value 31.73, $p < 0.05$). This can be explained by the fact that though age does not determine the fish trade group a woman belongs to, it is easier for younger women to mobilize and start selling *bonga* or crayfish than fish, which requires a higher capital outlay. The *bonga* trade could even be started without having any working capital by young women, if they are associated with a benevolent fish mammy, who give them in-kind loans. The money is returned after the processing and sale of the fish. Older women have higher networking and business skills and more social capital, which makes it easier to obtain working capital from different sources. High credibility, a good reputation and trust, acquired over the years, also ensures credit-worthiness enhances opportunities for mobilizing capital and fish for the trade. Crayfish bags can also be obtained on credit from husbands, clients or friends if one is credit worthy, and credit-worthiness takes time to establish.

5.2.4 Education

The years of education ranged from zero to eighteen years among the fish traders. Fish traders with less than six years of education made up the highest percentage (64%) of the 100 women fish traders interviewed. Only 32 percent had between six and twelve years of education while about 4 percent had more than twelve years of education. This suggests that education is not a determining factor in the fish trade. When comparing with national educational levels of women (cf. FBS), the levels of education of the *bonga* and crayfish traders in Ibaka are lower than the national average, while those for the big fish traders are. Education, considered on its

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own, does not necessarily determine performance because as illustrated in the case study results, MA (Case 9), a large scale crayfish trader who did not complete primary six, is doing well in her trade. However, there is some evidence from in the case studies conducted in Ibaka (Cases 1 and 5), and from Ghana (Clark 1994) that education enhances innovation, entrepreneurship and the level of performance in the trade.

5.3 The women of Ibaka

In 2006 Ibaka had a population of over 5,000 people, 49 percent of which were women (EIA 2006; NPC 2006). As a major fishing community on the Akwa Ibom coastline with a link road to the hinterland, a lot of fishing activities take place here and every household has a member who is involved in a fishery-related economic activity. During the peak season (October-March) *bonga* is landed in very large quantities during a greater part of most days, except on Sundays, during religious festivals and other traditionally prohibited days when people do not fish. To make the most of the season, some boat owners hire their boats and gears out so that the fishing is done in shifts, with fish landing sometimes in the night. The challenge to the *bonga* trader during this period is normally how to find sufficient funds to purchase excess fish. Those with or having enough suppliers are in turn challenged by how quickly they can process the catches, dispose of the processed fish and get back to the beach. It is thus very common to witness fish processing activities being carried out both during the day and throughout the night. This period also witnesses the employment of women with little or no funds as labour, in addition to children up to age nine and above, to facilitate the cleaning and smoking processes.

The services rendered by the fish mummies become very significant at this period because apart from lending money and inputs to the fishermen and equipping the boats with supplies of food and fuel, they also sponsor poor fish traders and new entrants who have no working capital by buying them the *bonga* to process and sell. The money is returned with interest after the fish has been sold, and this process is repeated until they accumulate enough income to stand on own their feet. Similar activities for fish mummies have been reported by Overa (2003) in Ghana and for the *pangamba*' in Indonesia by Niehof (2007).

The big fish traders also overwork and overstretch their resources during the peak season in a bid to distribute the large amounts of fish landed quickly to retailers and avoid post-harvest losses. For the crayfish group the main struggle is how to obtain a good price for their wares because the market price fluctuates markedly on a daily basis, depending on the quantity and quality of processed crayfish brought to the beach market from different fishing settlements each market day. But the prices are also at their lowest at the beach and the Ibaka markets during this period because of the large supply, and even though the smoked crayfish could be stored for over three months without spoilage, the women are not able to mobilize enough working capital to tie down and sustain the trade at the same time.

During the lean season (April- September), the frenzy of activities at the beach decreases gradually until it reaches its lowest ebb during the stormy July and August period when it is considered almost suicidal to venture into the sea looking for fish. *Bonga* thus becomes very scarce and the price shoots up unreservedly. The big fish traders still obtain fish

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to sell, though in much lower quantities, because their spear fishermen anchor their boats under the platforms and installations of oil exploration companies offshore and catch species of big fish that cluster around these installations, feeding on the detritus and algae that have grown around them over the years. These fishermen also catch sharks and other carnivorous species which go near the platforms to eat other fish and fish-related organisms. This makes searching for fish around the platforms a very dangerous and high risk activity which contributes to the high price of big fish in this period. The crayfish spawn around the creeks and estuaries during the lean season, so limited quantities are also caught around the estuaries. The prices of these species also shoot up because of limited supply. With a limited supply of fish at high prices, some of the women attempt to diversify their economic activities by subsistence farming, petty trading, fashion designing, hair dressing and skills acquisition activities, while waiting for the next peak season.

There are women in Ibaka that are not directly involved in the fish trade but in other kinds of fishery-related economic activities, such as supplying food, drinks, clothes and medication to the fish traders, fishermen and input suppliers in the community. A general survey revealed other economic activities, like trading essential commodities and fresh produce obtained from the hinterland for sale at the temporary, illegal open beach market at Ibaka or the open stalls at the official, permanent market, near the motor park. Others are engaged in fashion designing, hair-dressing, restaurant business (*bukka*), running beer parlors, trading in cosmetics or clothes, sale of frozen fish bought illegally from poachers at sea, and prostitution. All these services support the thriving fishery business in Ibaka.

5.4 Women's life histories

In this section I shall describe how eleven fish traders belonging to the three different trade groups carry out their trade while at the same time trying to run their households. The use of the fish trade as a major livelihood strategy by the women in Ibaka and how they struggle to continue in the trade, despite the risks and the constraints, are demonstrated in their stories. Livelihood strategy here refers to the strategy adopted by the women to sustain the livelihood of their households.

The culture of most ethnic groups in South Nigeria excludes women from inheriting any property from either their father's or husband's lineage. The patrilineal and patrilocal tradition ensures that wives and daughters do not inherit either their husbands' or their fathers' properties. It is felt that any property given to a daughter would ultimately end up in her husband's patrilineage. Hence, families are not willing to transfer their inheritances to their daughters in order not to enrich in-laws. Wives are generally considered strangers by their husbands' kin, which again does not qualify them for any form of inheritance. It is therefore logical for women not to dream about inheriting or owning family property. This has prompted women to search for individual ways of amassing wealth to transfer to their daughters in the form of bride wealth or inheritance (House-Midamba and Ekechi 1995).

The paradox of the strong patrilineal descent system, patriarchy and the polygamous marriage system in most Nigerian communities is that it has given rise to matrifocality within lineages and households. The matrifocal family resembles that of the Esan people (Ogbomo in

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House-Midamba and Ekechi 1995), and the Igbo(Uchendu 1995). According to Uchendu the matrifocal family is sometimes called a matri-centric family. It is a mother-centred segment of a polygynous family. Two or more matrifocal units 'linked' to or sharing a husband (who may be male or female) result in a polygynous family. A matrifocal household consists of a mother, her children, and other dependants. Among the Igbo it is essentially a cooking and eating unit.

The residential pattern creates a situation whereby each wife in a polygynous household has a separate living space and the living arrangements make it possible for each woman to be the focal point for her children. Because of the competitive nature of polygynous households, women are much concerned about how their children fare against the children of co-wives. Since women rely on their sons for access to such critical assets as land at the death of their husbands, they have to save for the rainy day by working hard to improve and consolidate their sons' positions within the polygynous family. To accomplish this, women have to strike special bonds with their children, created by extending economic benefits to them which ordinarily might not be forthcoming from their fathers. This informs the need for seeking independent economic avenues by women in the community. More importantly, because female children are not in a position to inherit from their patrilineage, they pin their hopes on their mothers. The mothers feel they have to cater to their daughters' needs when age is on their side, but in their old age it would be the turn of their daughters to cater for them. It is thus clear that a number of factors spur the fish traders in Ibaka to look for independent sources of income. If for nothing else, they are determined to secure the future of their children, who will in turn take care of them in their old age. Clearly, for women fish traders in fishing communities in Nigeria, the fish trade is a major livelihood strategy for the sustenance of their households (Williams 1999; Adewale and Ikeola 2005; Verstralen and Isebor 1997). The following case studies shall show to what extent this applies in Ibaka. The names of the main characters in the cases are pseudonyms.

5.4.1 Bonga fish traders

Case 1: Mma Ola (MO), a large-scale *bonga* trader from across the river

MO is about 43 years of age. She hails from Igbokoda in Ondo State, Southwest Nigeria. She is an Ilaje, a Yoruba group on the coastal fringes of Western Nigeria noted for great master-fishermen and versatile fish processors and traders. Mma is a mode of address used for a respected woman in Ibibio language spoken in Akwa Ibom State (AKS). It simply translates to mean mother. MO attends the same Jehovah's Witnesses Church as her parents. She has three sisters and three brothers who are all married and live in Lagos with their families. Her father was trading in textiles before going into fishing in Igbokoda when they were young. Later, when he learnt about the rich fisheries resources in Mbo, AKS, he left Igbokoda for Utan Brahma, which was then a semi-permanent fisheries outpost in Mbo Local Government Area, located between the Cross River and the Atlantic Ocean. Utan Brahma was a multi-ethnic community even at that time (1980) because it attracted fishermen from many parts of Nigeria, Ghana, Equatorial Guinea and Cameroun. Her father established a successful *bonga* fishery business there. Her mother later joined the husband from Igbokoda, to continue her *bonga*

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trade in Utan Brama, her husband being her regular supplier of fresh *bonga*, which she bought, processed and sold at Ibaka market.

Early life, education and marriage

As a child, MO lived with her parents and attended primary school in Igbokoda, which she completed in 1977. She proceeded to secondary school and completed her secondary education in 1983. She was with her mother in Igbokoda to complete her secondary education when her father moved to Utan Brama AKS. MO's mother was trading in cosmetics, earrings, necklaces, bangles, beads and children's wears, apart from trading in fish, and when the husband moved she lost her regular supply of fish. Life became hard for them after a while and MO started assisting her mother in the petty trade by hawking the wares around the community after school hours. When the little profit they were making from the petty trade could not support them conveniently anymore, her mother moved with her to Utan Brama, to meet her father. Her mother re-started the fish processing and trading business there and MO rendered immense assistance in the cleaning, smoking and selling of the fish. That is how she learnt and mastered the strategies required for success in the fish trade.

While at Utan Brama, in 1985 when she was about 20, MO met and married her husband, Ete Biyi (EB), an *Ilaje* fisherman. After five years of marriage, when they could not have children, EB took a second wife with whom he has four children. They all live together in the same compound and MO says she does not let it bother her since polygamy is in their culture. She is still hoping to have children. Meanwhile she devotes most of her time to her business. In the family, the husband takes major decisions and neither MO nor the co-wife operates a common purse with the husband, because the non-pooling culture is common to the *Ilajes* as well as to fisher folk in coastal communities. Also, she could not risk her money being spent on the co-wife and her children. Her fish trade is flourishing.

Becoming a businesswoman

MO learnt how to do business from her youth from her mother when she often supported her in petty trading at Igbokoda. She mastered the fish trade at Utan Brama while assisting her mother. After her marriage her husband and parents assisted her to start a food vending business before she went into the fish trade.

MO's food business and bukka

MO's food vending business involved travelling upland to buy fresh produce in bulk to cook and sell to the fisher-folk in Utan Brama. She cooked rice, beans, yam, plantain and stew, *garri* and soup and took them to the beach and to other nearby landing sites. Her customers ranged from fishermen to fish mummies, fish processors and petty traders who had no time to cook in their houses. She also enjoyed the patronage of mothers who were too busy cook for their children, and the business flourished. With increasing demand, she expanded the business and built a *bukka*, (a local canteen for serving food and drinks). She sold food in the canteen while the young girls she employed supplied their itinerant customers and other nearby fishing communities. She made good money in the food business and even saved some in the bank at Oron.

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MO as a bonga trader

During the fire incident of 1996, the whole fishing community was razed down and everything destroyed. MO lost everything and was thankful to God that she had some savings in the bank. With her savings she decided to start the *bonga* trade instead of continuing in the food business. She already had good experience and with a regular supply from her husband's boat, became a very successful *bonga* trader. Her mother helped introduce some of her customers (retailers) from the neighbouring Imo, Abia and Rivers States to MO at the beginning. Over time, with a good reputation, social networking, and expanding business, she acquired her own customers. Currently, her customers are all well known to her and she knows where they live. Some of them go to her house on non-market days to buy fish too.

Most coastal, semi-permanent fishing communities have certain basic characteristics in common, such as the crowding together of houses near the beach and the use of combustible housing materials such as thatch, wood, and mats. The women also smoke fish using open fires inside their living quarters. These factors contribute to the fire incidents that occurred in in Utan Brama in 1996 and 2002. The fire incident in 2007, however, was occasioned by the conflict between Nigeria and Cameroon, which led to the burning down and occupation of Utan Brama and other Nigerian fishing settlements in the Bakassi Peninsular by Camerounian gendarmes, forcing the whole community to relocate. MO moved to Atabong, Okobo LGA, a fishing community near Ibaka with her husband and father while her mother, tired of the vagaries of the fish trade and undue competition from her co-wives, moved back to Igbokoda.

At Atabong she inherited her mother's share of fish from her father's boat in addition to her regular supply from two other boats. When these sources are not sufficient, she sources for fish from other women who have supplies but not enough money to buy. She uses the *banda* method to smoke her fish and pays professional smokers to smoke for her since she has no children, and processes large quantities of fish, especially during the peak season. The *banda* is the Ilaje way of smoking fish. It is more efficient than the traditional method used in Ibaka and the final products look better. The *banda* method involves placing several layers of wire gauze on long bases supported by wooden stakes over the fire place. The fish are then placed upside down with their heads stuck through the meshes of the wire gauze. Several trays are piled on top of each other and the positions changed regularly for even and faster smoking. The Ilaje women introduced this method in Ibaka, and it is being slowly adopted. However, it is more labour intensive and also requires the use of skilled labour. MO says the *banda* smoking method enables her to make more profit because the final product commands a higher price.

MO brings her fish from Atabong with a boat to sell at Ibaka market to her customers every market day, when it is their turn to sell at the market. Prices are affected by seasonality that determines the quantity of fish at the market. She sells both for cash and on credit and the terms of the sale are normally not documented but agreed on verbally. At the time of the interview she had a working capital of about ₦300,000² cash and fish worth over ₦200,000 that she sold on credit to her customers. She is trying hard to reduce the volume of her credit sales so as not to tie down her capital.

² \$US = ₦120

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Assistance

MO never got any credit or financial assistance from government, NGO or any association at any time. She never asked for such help in Akwa Ibom State because she feels, being a non-indigene, they will not give her. She said she would apply for it if she were sure they would give her because the lack of financial assistance affects her business negatively. She claimed needing a loan of up to ₦300,000 to improve her fish trade, which she could pay back in one year, given a reasonable interest rate.

Sad/Happy moments

MO feels sad when she remembers her childless status and still hopes to have children. However, even though she has no children and worries about it sometimes, she feels happy about her success in the fish business and the fact that she is alive, in good health and has been able to support her mother.

Community issues, HIV and AIDS

MO would like to see positive actions taken towards the development of the community. She said the communal taxes and levies collected from the traders are misappropriated by the community leaders and local government officials. This has been a major constraint to community development efforts because very few facilities have been provided in all the years she had been there. Asked to comment on HIV and AIDS she laughed uncontrollably saying “HIV fears salt water; AIDS fears salt water”. This outburst clearly illustrates the level of ignorance about the causes and effects of HIV and AIDS, apart from the attitude of fisher folk towards the disease.

Challenges

To her, the most discouraging aspects of the business are the heat and smoke that she gets exposed to during the smoking process. She added that she believes the heat is the major cause of her infertility. She said not to know a more efficient way of smoking fish that would reduce women’s exposure to smoke and heat. She also sees the frequent fire outbreaks as another problem that has had a negative impact on her business. MO recalled that a friend and neighbour could not continue after the last fire incident at Utan Brama, abandoned the fish trade and relocated to Lagos to start another business. She said one needed to be strong to withstand huge losses and still continue in the fishery business. Asked what they were doing to prevent future fire incidents she said as a stranger she could not do much but that she keeps her money in the bank so as not to lose it in the event of another fire incident.

Achievements

MO has built a personal house in Ikpokoda on the portion of land given to her by her father. Among the Ilaje’s women are allowed to own property, and married female children can even build houses on their parents’ land. MO has also used the profit from her business to support her nieces and nephews in school. She has regularly given financial support to her family members for the past ten years and visits them at least twice each year. She has constructed a separate kitchen at Atabong where she has her *banda*. She does not have any other occupation apart from the fish trade. She goes home to Igbokoda to visit her mother, and to Lagos to visit

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her brothers and sisters during the worst periods of the lean season (July, August) and during the Christmas and New Year holidays.

Future plans

MO hopes to build a personal house at Atabong, further away from the beach where it cannot be affected by any fire outbreak. She would also wish to own a property in Ibaka and buy a van to help her transport fish to distant places for more profit. She hopes to diversify into petty trading and to own a shop at the Ibaka market. She still hopes to have children and if that fails, she plans to adopt. She has started saving money so she can give them quality education to avoid their going into the fish business like her.

Case 2: Mma Commy (MC), a medium scale-bonga trader in Ibaka,

MC is about 49 years old but looks older. She is also an Ilaje from Igbokoda in Ondo State. Her father was a fisherman while her mother was a fish trader. They are both dead. MC has two sisters and a brother. Her brother, who is an engineer, and her two married sisters live in Ondo State. She is the last child of her mother, but her father had children from two other wives.

Early life, education and marriage

As her mother's last child, MC was not allowed to attend school beyond primary 2. Her mother needed her at home while her brother and sisters were in school. She did household chores like going to the market, cleaning and cooking. Her mother usually travelled from Igbokoda to sell fish at distant markets in Warri and Sapele (Delta State) and in Benin City (Edo State). She also assisted her mother to transport the fish from the beach, clean and process, and helped to sell some of the leftover fish locally. According to MC, life for her as a child was tough because she had to take care of the household when her mother travelled to sell fish.

At the age of 17 MC got married to a fisherman and went to live with her husband in Igbokoda. They later moved to AKS to settle at Utan Brama, Mbo LGA. The couple had been married for only about a year when the man married a second wife. The act did not go down well with her but she had no choice but to endure the condition because polygamy is part of their culture. Her only consolation was the fact that she was the first wife and any other wives who would come after her would have to respect her position and defer to her as the senior wife. She has nine children, six boys and three girls. When she lived with her husband, the wives ran their own households, and took turns in general housekeeping, cooking and serving their husband.

During the fire of 1996 in Utan Brama they lost everything, so MC decided to move to Ibaka with her children, leaving her husband with his other wife. She has been living at Ibaka since then. The children are all in school and she takes care of all their needs in terms of food, health, clothes and school fees. Their father stays in Bakassi with his second wife and visits her only occasionally. He rarely contributes to his children's upkeep and education. Being the senior wife, she had decided to move to Ibaka and stay on her own to operate her business because her husband was hardly paying her any attention after she had nine children.

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Becoming and being a bonga trader

MC learnt the fish trade from her mother. As the daughter of a *bonga* trader, and marrying a *bonga* fisherman, it was only natural that she would continue in the *bonga* trade. She was given financial assistance by her mother to start. MC has been processing and selling fish for over twenty-five years now, and has been successful in her trade. She has two regular suppliers of fresh *bonga* at the beach. This is to ensure she gets enough fish at any time or season, even when the boat owners ration their fish to meet the demands of all their customers.

The standard measure used for *bonga* at the beach is a basin that weighs about 20kg when filled with fish. One basin makes a heap and ten heaps make a line. Buyers in MC's category normally buy in multiples of lines. During the peak season, when a heap could cost about ₦3,000 or less, she would sometimes buy up to ten lines (100 heaps), depending on financial ability, and sell a heap for about ₦5,000 after processing. Assuming the processing, transportation and all other costs consume up to 50 percent of the gross profit, her profit margins per week during the peak season looks as follows:

Purchase of 10 lines at ₦30,000 per line =	₦300,000
Sale of 10 lines of processed fish at ₦50,000 per line =	₦500,000
Gross profit for MC =	₦200,000
Total costs: transport, cleaning and smoking =	<u>₦100,000</u>
Net profit per week =	₦100,000.

MC could make a net profit of ₦100,000 a week if she sells for cash only, which is not always the case. However, if she gives only 40 percent of her fish on credit, she would still be sure of making about ₦60,000 a week, which is ₦240,000 (\$2,000) a month, during most of the peak season. When there is a glut, fish is usually cheaper so MC buys more fish to process and store till it is more profitable to sell. Occasionally she incurs losses but it does not deter her. She has a capital base of about ₦300,000 and sometimes collects a loan of up to ₦300,000 from the local money lenders at a monthly interest rate of 10 percent to boost her business during the peak season. She tries to repay it within one fishing season so as not to pay too much interest.

During the lean season however, a heap costs about ₦5,000 and can be sold for about ₦7,000 after processing. The profit margin is about the same per line but on the average one may not obtain more than five lines of fresh *bonga* to buy in a fortnight and so the turnover is much lower. With an average of five lines per fortnight the profit profile would be as follows:

Purchase of 5 lines at ₦50,000 per line =	₦250,000
Sale of 5 lines at ₦70,000 per line =	₦350,000
Gross profit =	₦100,000
Costs of transport, cleaning and smoking =	<u>₦50,000</u>
Net profit per fortnight =	₦50,000

Thus the profit margin is much lower during the lean season than during the peak season, which explains why the women spend most of their time in the fish trade during the peak season. MC uses the *banda* method to smoke fish, for better quality fish and higher prices.

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She sells her fish to five regular customers from Imo and Abia States. Sometimes they pay cash, and at other times they make part payment for fish bought, to pay the balance in a week's time, during the following market day. While discussing with her, one of her customers came in and handed her the sum of ₦130,000, payment for fish herself and her friend bought the previous market day. The unwritten rule or agreement for selling on credit in the fishery business in Ibaka is that the money gets returned in a week, at the next market day, after the sale of the fish. However, as in all agreements, some customers do take longer to repay sometimes, or actually default, if they run into problems like accidents on the road. In general though, people try to keep a clean slate with their suppliers, in order to build trust.

Support / Assistance

MC belongs to a group called Leader Mary, an organization in the Cherubim and Seraphim Church in Ibaka. She says she draws spiritual inspiration from the group. The group also gives financial assistance to members, but MC considers the amount too small to make a difference in her business. She gets her loan from money lenders to do her business. Asked why she has not sought assistance from the government or a bank she said both processes are normally too difficult and involve a lot of delay. Moreover, she said, there was no bank nearby and she believed they would also not give her because they do not give loans to women, and she is illiterate and not from the community. She also said "if you are lucky to get it after all the delays, they would not be patient with you if you have any problems when it is time to repay". She prefers to stay with the local money lenders and would only apply to the government for a grant.

Happy / Sad moments

She still feels unhappy when she remembers how her husband married a second wife only one year after their marriage. However she is happy that all her children are alive and well, and that she has been able to take care of all of them and herself.

Community issues, HIV and AIDS

She complained about the levies the traders pay to the local government authorities which are not being spent on the development of the community. She said she heard about AIDS on the radio but has never seen a person with AIDS.

Challenges

The major problem MC faces in Ibaka is the incessant fire incidents. Her smoking house has burnt down twice. She always had a separate smoking house with a large *banda* and lost much fish during the two fire incidents. She lost a total of ₦300,000 worth of fish to the 2000 fire and another ₦250,000 to the 2007 fire. Even though the local government officials collected the names of those affected after the fire of 2007, no compensation had yet been paid at the time of the interview. MC says she cannot complain to anybody because nobody cares, and, being a non-indigene, she was not sure they would compensate her. Her other problem is debt because sometimes her customers do not pay back on schedule, which causes liquidity problems.

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Achievements

She says being able to take care of her nine children, paying their school fees, feeding them, buying clothes and providing for their other needs are for her, an achievement. She says her culture does not prevent women from owning property and she owns a piece of land at Igbokoda, her village, and hopes to build a house there. She has however been able to build back her kitchen and smoking house containing a big *banda* in Ibaka, where she stays to smoke her fish. Other women also pay to smoke fish in the *banda*, which gives her an extra source of income.

Future plans

MC wants children to go to university. Presently her first daughter has completed her secondary school and is waiting for admission into the university to study accounting. She also intends to build her house in Igbokoda.

Case 3: Mma Bew (MB), small scale bonga trader, Ibaka

MB is 47 years old and comes from Ikot Ekpenyong in Mkpato Enin Local Government Area (LGA) of AKS. Her father was a bricklayer and died in 2005. Her mother is a petty trader and lives in Ikot Ekpenyong. She also processes cassava tubers into *garri* (granulated cassava flour), and extracts oil from palm fruits for sale in local markets in Mkpato Enin. There are seven of them in the family, three men and four women. Her eldest brother works in Lagos. The other two brothers are farmers, while her sisters are all married with children and live with their husbands in different parts of AKS. She is married and has six children, four boys and two girls. Her first child completed his secondary education in 2008 when the last one just started nursery school. She has stopped having children.

Early life, education and marriage

MB lived with her parents in their village as a child and completed her primary school education, after which she could not continue because of lack of money for school fees. She had to assist her parents in the farm even though she hated farm work. She opted fetch water from the stream for her mother's use in the food processing business to avoid farm work. She also assisted her mother in hawking the *garri*, and any day she sold two basins without losing money, she was rewarded. She had hoped to obtain her secondary school fees from her mother from the proceeds of the *garri* business and when this was not possible, she went to Lagos to ask her brother. He did not give her any money either, so she returned home. Two years later got married to Ete Ba (EB) whom she met in the course of helping her mother sell oil and *garri*. She was only 19 then and moved with her husband to settle at Ibaka. EB also had only a primary school education and started working as a deckhand in a *bonga* boat at Ibaka.

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When his earnings could no longer support the family as she had children in quick succession, life became difficult for them and MB had to start the fish trade at Ibaka to support her husband in the family's upkeep. She learnt and started the fish trade with the help of a

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neighbour and friend. Her sister gave her ₦3,900. She started with selling crayfish but switched to *bonga* when her husband became a co-owner of a small *bonga* boat. She has a steady fish supply from the husband, which is convenient because whenever she cannot pay cash for all the fish her husband gives her some of it on credit, to pay back after sales. She has been in the fish business for 20 years now but has not been able to build up her capital because her husband stopped giving her housekeeping money as soon as she started the trade. Her profit goes to feeding the family. Also, the Camerounian gendarmes had seized their outboard engine on the high seas and for two years they had to save money and borrow some to buy a new one at ₦250,000.

She smokes her fish using the chorkor smoking kiln in Ibaka. The kiln is named after Chorkor village in Ghana where the oven was first designed and used. It is constructed with mud or cement and is an enclosure with only one opening in front through which firewood is fed. The fish are arranged on trays constructed with chicken wire and hard wood, which are then piled on top of the oven in layers to dry. According to MB, smoking fish with chorkor makes the fish very attractive and prevents fire outbreak. It also ensures good health since one is not unnecessarily exposed to heat and smoke. Moreover, it is more efficient than the *banda* because all the heat and smoke are conserved within the confines of the walls and directed upwards towards the fish. She said she learnt about the chorkor during the implementation of the IFAD Fisheries Project and uses it till now. All her neighbours also use the chorkor since it is a condition for staying in that part of Ibaka where the government's extension office is located.

MB said that the price fluctuations of *bonga* can be treacherous especially in-between seasons. Due to climate change, the fisher folk are not always able to predict the sea accurately these days, and sometimes there is a glut immediately after scarcity. This results in a price dip and the sale of the previously processed *bonga* at a loss. It thus calls for a lot of caution and experience. Whenever the fish is too costly MB does not buy much so she would not incur any losses if there is a glut immediately after.

Support /Assistance

MB said she once joined a self-help *osusu* group in a bid to raise working capital, but the group disintegrated after a few people had benefited and she could not get her initial contributions back. She did not join another group after that experience. She also borrowed ₦10,000 from a money lender some years back and was paying back ₦1,000 every month as interest until she could return the capital. She complains about money lenders because their interest is always greater than the capital if you delay in paying back, like she did. MB has not received any assistance from any government institution, NGO or social organization before. She gets financial assistance from her mother who still sells palm oil and *garri*, or her sister who is into petty trading in their village. She is struggling to build her capital gradually.

Happy/Sad moments

She is unhappy that after contributing the little money she had for her husband to acquire some nets and an outboard engine, he stopped paying for the household and children's school fees.

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Community issues, HIV and AIDS

She said since she is not from Ibaka she is not really involved in the community affairs. She is however involved with the women's fellowship in the church as a member. On HIV and AIDS she said that she would not recognize an AIDS victim if she saw one, even though she had heard about it on the radio and at the health centre where she used to attend ante-natal clinic.

Challenges

MB expressed concern about the insecurity on the high seas as the husband's outboard engine was seized by the Camerounian Gendarmes in 2005 and it took them two years to be able to raise ₦250,000 and acquire another engine. This set their businesses back tremendously. With the current high cost of fish and her present low capital, she cannot buy much fish and it is a major problem for her. Since she is spending much of her money on her children's fees and the upkeep of the household, lack of capital to put into the fish trade has become a major problem.

Achievements

MB supported her husband to buy an outboard engine and nets of his own to fish for himself. They have been able to train their first son to secondary school level. She has also supported her husband to acquire a piece of land in his village in Mkpato Enin and they have moulded some blocks pending when they have enough money to build a house.

Future plans

MB plans to send her son to the university and she is working hard and saving towards that. She still intends to help her husband build a house in their village where they purchased a piece of land, with proceeds from the fish business.

Case 4: Mma Mbedi (MM), a fish mammy and trader

MM is 52 years old, very popular with the women at Ibaka beach and is from Effiat, a fishing community near Ibaka, in Mbo LGA. She lives in Ibaka with her husband and they have five children, three girls and two boys. Her husband is a fisherman and owns a *Watsa* (Ghana *bonga*) boat. Their children have all completed secondary school and two of the girls are married and have children. MM's first son has graduated from the Polytechnic. He studied accounting and will soon leave for the National Youth Service.

Early life, education and marriage

MM was born in Effiat and she grew up with her parents. Her father was a fisherman while her mother was a *bonga* fish trader. She attended primary school but since it was not a popular practice to send girls to school at that time, MM was withdrawn from school after primary 3. With nothing to do as a child she started following her peers to pick periwinkle at the beach at ebb tide. Her mother used to save them until she accumulated enough for sale while some of it was kept for family use. She started her fish business by following her mother to the beach. At adolescence, she was sent to Calabar, in Cross River State to live with her aunty whom she served as a maid, taking care of the children, cooking and keeping the house. As she grew up her responsibilities increased and when she could no longer cope she asked to go home. When

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her aunty did not allow her to return home she fled. Back home at Effiat MM became even more useful to her mother and she soon learnt how to price, buy, process and sell *bonga*. In the course of helping out her mother with the fish business she met Ete Okon (EO), an indigene of Ibaka. They got married and moved to Ibaka. EO was a boat operator, running a water transportation service between Nigeria and Cameroun, but when the venture became too risky in the wake of the conflict that erupted between the two countries over the Bakassi Peninsular, he abandoned it and went into fishing for *bonga*.

Becoming and being a bonga trader and a fish mammy

MM was introduced into the business and funded by her mother. She is well known at the beach because of the peculiar fish processing method, the *banda* she adopted from her *Ilaje* neighbor and friend . Initially MM was buying two lines (20 basins) of *bonga* from the boat to smoke in the traditional way. This involves the use of specially prepared sticks to pin the fish in tens or fifteen per stick depending on the sizes (big ones 10 per stick and small ones 15). This method is inefficient and damages the head of the fish, reducing its aesthetic value. According to MM, using the *banda*, larger quantities of fish can be smoked at a time, the fish dry quicker, and there is less damage to the fish. This ensures a shorter time between the beach and the market, a higher turnover, better quality fish, and reduced post-harvest losses, resulting in higher incomes.

When MM's husband acquired a *bonga* boat her scale of operation increased gradually until she became a fish mammy and a medium-scale *bonga* trader. Presently she has a capital base of about ₦500,000 for her fish mammy business and fish trade. She normally buys two to three lines of *bonga* but when there is a glut and the price is lower, she buys four to five lines. She hires labour for cleaning, arranging the fish on the *banda* and smoking it. The dried fish is then measured in baskets for sale. A medium sized basket of dried *bonga* sells for ₦6,500 or ₦7,000 depending on the size of the fish. The bigger sizes command higher prices. MM has two sets of buyers for her fish and they are Ibos from Imo and Abia States. The fish is graded into large and small sizes for specific customers.

MM's husband owns a *Watsa* or "Ghana Boat". This boat originated from Ghana, hence its name. It uses encircling seine nets usually of about 50m long and 28- 35m deep and a 40Hp outboard engine. The boats measure between 17m and 22m in length, are produced in Ibaka and its environs and carry between 14 and 20 crew members who have different functions. MM contributed to the acquisition of the boat and that qualifies her to be the fish mammy, apart from being the wife of the owner of the boat and an experienced fish trader. Her husband is the captain of the boat and MM uses most of her capital to run her fish mammy business.

As a fish mammy she arranges for all the supplies needed by the crew for a successful fishing trip each time they go fishing. These include food, water, fuel and cooking utensils. On arrival from each fishing trip the captain/manager of the boat and the fish mammy take stock of the total catch. The fish rations for food and the crew are removed before costing the remaining fish for sale to the fish mammy. The catch is sold to her for cash, which she pays for before taking final delivery of the fish at the beach. Having started out as a processor herself she sells only a percentage of the fish to other traders, and depending on how much capital she has, buys the rest herself to process in order to sell and make more profit. Her possession of a *banda*

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makes the processing less tedious and she then pays people to clean and smoke for her, leaving her time for her fish mammy business. She sometimes sponsors trust-worthy new entrants and other women with low working capital by giving them fish on credit, which they pay back after sales.

Support/Assistance

MM belongs to the Apostolic Church's Women's Fellowship. This is where she draws spiritual support and inspiration to move on in business. She does not belong to any other social group. MM says she has never benefitted from any form of assistance from any group or organization. She would like to get government assistance but for unnecessary delays in the process. She occasionally gets loans from money lenders when she is desperate, during the peak season because according to her, it is not all of them that are difficult.

Happy/ Sad moments

MM's happiest moment was when her first son graduated from the Polytechnic. She said any time she sees her children she feels very happy and fulfilled. Her saddest moment remains the day she lost everything to fire at Ibaka, which brought her untold hardship that she is still trying to overcome.

Community issues, HIV and AIDS

On HIV and AIDS, MM says she has only heard about it on radio and television. She does not know what somebody with AIDS looks like, but that it is widely rumoured that AIDS does not exist. However, she said if she gets to see such persons, she would offer some financial assistance. She could also offer food but would not eat with them so she would not get infected.

Challenges

MM has faced a lot of constraints in the course of doing fish business. Apart from the fact that she is being owed by her customers, she has suffered great losses to the fire outbreak. She lost ₦200,000 worth of fish in 2007 as her kitchen was completely razed down. She lamented that no relief materials were ever sent to them to ease their suffering, as the government does in other places. Lack of capital for investment is another problem for MM. Since profit increases with capital invested, she would like to get a loan for expanding her business. She would prefer a government loan and not from the money lenders, whose interest rates she considers too high.

Achievements

Despite all these challenges, MM has made remarkable achievements in her fish business. She has stayed in the business for the past 20 years. In the process, she has successfully supported her husband to build a permanent cement block building in Ibaka, where they are now residing. Together they have sent their children to school. MM has also built her personal house on the plot of land her father gave her at Effiat, Mbo. She has built a separate smoking house, complete with a *banda*, which she makes extra money from through hiring to other processors.

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Future plan

She plans to send her second son to the university. She is already working towards this end. MM also plans to purchase a boat to operate a water transportation service to augment her income.

5.4.2 Analysing the Stories

The life histories of the four different categories of *bonga* traders in Ibaka are analyzed in terms of (1) , recruitment into the *bonga* trade, the social networks, trust, support and assistance, and how they engender performance; (2) level of competence in the trade, skills, educational background, age and how these affect performance; (3) women's agency and autonomy; (4) the social, cultural and economic challenges that still exist and have in one way or another, affected the women's ability to perform efficiently in the economic and domestic domains, and (5) their achievements and the methods by which they have exploited and manipulated the economic and social political opportunities for their welfare and that of their households.

As with other economic activities in the agricultural sector in Nigeria, a sexual division of labour operates in the fishery industry in Ibaka. While the men are involved in harvesting the fish, building boats and taking care of the fishing inputs, the women are involved in the cleaning, preservation, processing, and selling of the fish. The division of labour in fishery has been reported for Africa and Asia (Verstralen and Isebor 1997; Williams, 1999; Overa, 1993; Niehof 2007) and is in Ibaka rationalized by the claim that it was conditioned by local taboos.

The *bonga* trade and recruitment into the trade

The *bonga* trade in Ibaka has been sustained from one generation to another through the use of personalized commercial relations involving a vertical dyadic bond between buyers and sellers, and horizontal formal and informal peer group relations based on trust; social networks formed between the traders and their fishermen clients on the one hand, and their customers on the other; moral, financial and spiritual support rendered by relations, friends, social organizations and the church. The women involved are lowly educated: three quarters (75%) of the *bonga* traders had less than six years of education, of whom 50 percent less than three years. Most of the traders (75%) started with helping their mothers in the trade when they were very young and this served as a period of apprenticeship; while helping out they learnt the intricacies of the trade. The apprentice relationship also served to provide labour for their mother's businesses. The labour is contributed in return for training on the specialized skills the enterprise needs and working capital at marriage.

The traders all got married before the age of 20 and started their economic activities soon after getting married, to have an independent source of income. Apart from being a gendered activity, the fish trade is also a trans-generational activity because most *bonga* traders (Cases 1, 2, 4) were introduced to the trade by their mothers, and their grandmothers were also fish traders. It is customary to have female children get involved in livelihood activities that will prepare them for a better future since they do not inherit anything from their fathers or

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husbands (Fakpohunda 2005). The financial capital for the trade in all cases was supplied either by mothers or friends, in the absence of financial assistance from formal financial institutions. The women generally belonged to the same church as their parents and derived social, spiritual and moral support from the church's women's organizations.

Competence

Trading successfully not only requires a location and capital, but considerable skill. Someone beginning in trading needs to acquire both general trading skills and others specific to the kind of trading concerned (Clark 1994). The *bonga* traders in the case histories all acquired general business skills, fish processing and trading skills from their mothers and each trader garnered over ten years of training and skills development during the apprenticeship period before starting out on their own, because most of them (75%) were withdrawn from school and sent to the beach and markets with their mothers at ages eight to ten.

Building up an enterprise also requires knowledge of the relevant people and the history of interaction with individual suppliers and buyers, which the women accumulated during the apprenticeship period through regular interaction with their mother's customers and suppliers. Even though illiterate, many of the women are trading successfully in fish, doing their accounts mentally. Some of the large-scale traders however deploy their educated children to help in rudimentary record keeping and accounts. As children, the traders had to learn the language of the trade (Ibibio and pidgin) by themselves. Numeracy, effective bargaining and other attributes necessary for success in the trade were also learnt through observation and practice. Success in the *bonga* trade does not seem to depend on the level of education because even though the large-scale trader MO (Case 1) had twelve years of education, MC, the medium-scale trader in Case 2, and MM, the fish mammy in Case 4, had only few years of education between them and are doing well too. The number of years of experience seems to have a positive effect on competence in the trade because most of the traders had more than 20 years of experience, apart from the years of apprenticeship. The age of the traders determines how many years they have spent on the trade and consequently, the number of years of experience, which contributes to the ability to trade in fish successfully and sustainably. Also, trustworthiness and social capital are built over several years of interaction with clients and customers.

Agency and autonomy

All women in the study demonstrated agency and autonomy. The fishery economy and social organization provide them with the opportunities to take matters into their own hands and the use of their knowledge, skills and experience to improve their own situations and that of their dependants. Moreover, all the cases reveal keen and innovative entrepreneurship. Even MB (Case 3) exercises her agency, despite the difficult situation she finds herself in.

The women practiced a zero resource-pooling behaviour similar to that reported in upland Nigeria for Yoruba and Ibo women traders (Falola 1995; Ekechi 1995), women traders in Kumasi market (Clark 1994), in coastal communities in Ghana (Overa 1993) and in Indonesia (Niehof 2007). Each trader maintained her income and finances without any interference from her husband, and did not pool her income with that of her husband. Even

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though economic theory has suggested that a rational pooling of household resources leads to economies of scale and, thereby, to increased family consumption, several West African studies show that a wife's decision not to pool her resources is a rational one to avert risks and loss of the own ability to accumulate capital or to invest in indigenous insurance (Clark 1994; Oppong 1981). Economic autonomy permits a wife to invest in extended family relationships and social networks, thereby improving her bargaining position in her ongoing marital relationship. Such social relationships provide a measure of insurance in case of marital disruption. Economic independence also lessens the risk of assets loss under traditional inheritance or from polygynous practices.

MM, the fish mammy, and to a lesser extent the fish processors and wholesale traders, have a relationship with the retailers and the fishermen that is both hierarchical and multi-faceted. The relationship is extended to other minor workers involved in the fishery scene, such as the barrow boys, the women who clean and process, and the smokers in the *bandas*. The relationships between the fish mammy and the owners and crew of boats, and equipment they invested in, and for which they market the fish on the one hand, and the array of networks of fish marketers on the other, have the durability, normative underpinnings, and the personal touch similar to a patron-client relationship. The study of the activities of fish mammies in Ghanaian coastal artisanal fishery by Overa (1993) shows a similar relationship. As the patrons in these cases are women, according to Niehof (2007) the relationship can be referred to as 'matronage'. The fish mammies here are the matrons, who have both male and female clients.

Challenges and achievements

Women in the *bonga* trade face a lot of challenges presented because of the perishable nature of the fish, their location, and gender, cultural and institutional constraints. The major challenges mentioned included lack of access to capital for investment in the trade, liquidity problems arising from credit sales to customers, losses from spoilage, debts owed by customers, devastating losses occasioned by fire incidents, lack of infrastructural, storage and processing facilities, lack of support or assistance from government or NGOs. Occasional losses in the trade caused by the unpredictable nature of the sea occasioned by effects of climate change were also mentioned as a challenge. One trader (MO) specifically complained that heat and smoke have affected her health and fertility.

Despite these challenges, the traders also made noteworthy achievements. The fish mammy (Case 4) built two houses, while MO (Case 1) built one. Both of them and MC (Case 2) have built separate smoking houses and kitchens, while MB (Case 3) was able to acquire a chorkor smoker. M O sends money home regularly and supports her mother who has retired from the fish trade. She also supports members of her extended family and pays school fees for some of her nieces and nephews. All the women, except MM (Case 4), feed themselves, their children and other dependants. They pay their children's school fees and take care of all their needs single-handedly, even though they are still married and their spouses are alive, well, and involved in profitable economic activities. All women have also managed to sustain their position in the fish trade and remain in business despite suffering devastating losses from several fire incidents and having to take care of their household without any financial or other assistance from the government, NGOs, or their husbands.

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5.4.3 Big fish traders

Case 5: Mma Hanna (MH), a successful big fish trader and boat owner

MH is about 48 years old. She was born in Ibaka. MH is quite a lively person and volunteers information happily. She has a good memory and a good command of the English language. She is a widow with five children, four boys and a girl. Her husband died in 2003.

Early life, education and marriage

As a child she lived with her parents and started schooling in Ibaka. After two years of primary school, she was taken to Obudu, Cross River State by her maternal uncle where she completed her primary education. As a child things were not difficult with MH largely because she was an intelligent child and her uncle paid her school fees. She gained admission into the Mainland Technical College, Oron, Akwa Ibom State after her primary education. On completion of her secondary education, she stayed in Uyo with another uncle of hers.

Being a girl, the family thought that after her secondary education she should get married even though they could afford her school fees. After screening all the suitors, her mother arranged for her to marry Ete Tom (ET) from Ibaka who was working in Kaduna, Northern Nigeria. After the marriage she moved to Kaduna with the husband but after 3 years ET was offered a job in the Department of Fisheries in Calabar, Cross River State so they moved to Calabar. During the Structural Adjustment Programme (SAP) in Nigeria and the subsequent economic depression which started in 1986, the government embarked on a mass retrenchment of workers and ET lost his job. They moved back to Ibaka to start life afresh and during those difficult times ET was introduced to trading in rice between Nigeria and Cameroun. Life became easier for them after a while and MH started petty trading with money given to her by her mother and husband. ET took major decisions in the family and even though they were close he never discussed money matters with her, which made it difficult for her to track his assets and savings when he died suddenly in 2003. However, at present, MH controls all her late husband's estate.

MH decided to continue her education when they got back to Ibaka. She eventually graduated from the University of Uyo AKS in 2008. The inspiration to pursue higher education came from her maternal family and community where education was well promoted. Her maternal uncles were all well educated and holding good positions in government.

MH and her petrol business

In 1988 ET was invited to represent his Ward in Mbo LGA and in the same year he gave MH money to start the sales of petroleum products in Ibaka. In those days fuelling of boats used to be a tedious affair because the fuel was usually transported in drums from Uyo to Ibaka, and stored in houses. The dispensing was messy, risky and fire incidents were frequent. MH started first with the use of surface tanks in marketing of the product in their community, and graduated to the use of underground tanks. The surface tanks were kept far from the living quarters and the fuel was simply dispensed using a pump and a tap. The business boomed and

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MH managed it, while ET was still a member of the Local Government Executive Council. Most times she had to travel to the refinery in Port Harcourt to order the product, ensure the delivery and supervise the sales. In 1992, the tenure of the local administration ended and the husband joined in the business, which was quite rewarding until the inauguration of the State Taskforce on Petroleum Products in 2000. The petroleum products dealers in coastal communities were accused of bunkering and their surface tanks were destroyed. In many cases, sales persons were arrested and huge sums extracted from their employers to secure their release.

Becoming and being a big fish trader

To cut their losses ET and MH decided to quit the business and use some of the profit for MH to join the fish trade. She was introduced into the fish business by her step-sister. The business involved buying big fish from different boats and transporting them to Port Harcourt to sell to customers. With an initial sum of (₦120,000 only, MH bought fish from the fishermen and stored it in cold rooms at Oron. When bought enough, she would hire a vehicle to transport the fish to Port Harcourt to sell it to a fishing company there. Sales were usually completed the same day and she would return to Ibaka. Currently, MH does not have to take her fish out of Ibaka because she has a lot of customers coming to Ibaka to buy the fish. During the peak season (she uses her mobile phone to get in touch with her customers anytime there is a glut. Fish unsold at the beach is packed with ice into boxes in her house and sold by the following day or smoked. MH has a fishing boat and her capital base stands at about (₦500,000, excluding indebtedness which is about the same amount. To ensure the regular supply of big fish, she has engaged two divers from the Cameroun. They are hired for amounts ranging between ₦300,000 and ₦350,000 per fishing season. Usually, it is only after a contract has been signed and a fee of 50 percent of the contract sum is paid up front to the diver in Cameroun that a diver leaves home to work for his employer in Nigeria. The interview with a few divers and observations at the beach revealed that the work is done by strong, young men, aged between 25 and 45, who bring all the necessary gears along with them. On return from a catch, a kilogram of fish is sold for about (₦250.00 to the employer, who sells it for about (₦500.00 per kilogram to the retailers. Traders other than their employers buy the fish from the boat at ₦300.00 per kilogram. At the end of a fishing season, the balance of the hiring fee is paid to the diver(s) and negotiations for the next fishing season are concluded before the diver goes home to his family or spends his off-season relaxing in Ibaka. During the Christmas and New Year Celebrations all the divers normally go home because no fishing activities are allowed. The employer provides accommodation for the fisherman and gives the fish for food fish. MH also has a fibre-glass boat which is being used for the transportation business and serves as her secondary source of income.

Support / Assistance

MH received financial assistance (₦100,000) and moral support from her big fish trade group, the “*Ata Nsiyak*” group during the death and burial ceremonies of her husband in 2003, for which she was very grateful. Apart from offering moral and financial support to members during bereavement, the group organizes a savings and loans scheme and gives loans to

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members who suffer business losses. Group members contribute the amount required and loan to such a needy member at a low annual interest rate (10%) to enable her get back in business. MH received a loan of two outboard engines through her group from the Nigerian Agricultural and Cooperative Bank (NACB) through the UNDP/IFAD supported Fisheries Project in 1994. She repaid the loan within the allotted time of 18 months. She also benefited from the sales of inputs in 2007 where she bought an engine, a boat and some nets at a subsidized rate from the Department of Fisheries of the Ministry of Agriculture in Uyo AKS. MH says she would require credit of up to ₦1,000,000.00 to improve her business, which she could conveniently pay back in one year.

Happy/Sad moments

MH feels sad whenever she realizes that her husband is no more. She was happy to receive the two outboard engines on loan from the NACB/ IFAD project. The loan really helped her to launch her fish trade at the time and her business has been expanding despite all the challenges. The inputs she bought in 2007 also helped her fish trade and transportation business. She is very happy that her children are doing well in school because she would not want her only daughter to be involved in the fish trade. She is also happy that she could eventually finish her education.

General issues, HIV and AIDS

MH says she appreciates the fact that in Ibaka there are no cultural barriers for entry into or doing business by women, irrespective of marital status, ethnicity or literacy level. Any woman is free to engage in any legal business of her choice in Ibaka. The only condition is that all prospective members must register in the relevant unions. A woman has the right to buy land for herself and her children with her money without reference to the husband or anybody else. Asked about HIV and AIDS she said she had only heard about it over the radio and television, but might not be able to recognize a person with AIDS if she saw one.

Challenges

“This business does have its own challenges”, says MH. The Camerounian gendarmes impounded her boat alongside those of others during the Bakassi Peninsular conflict. She also lost an outboard engine. This made it difficult for her to recover the advance payment made to the divers and make profit, since the calculations assume full-time work during the fishing season. The other challenges are the absence of cold storage facilities in Ibaka, the lack of electricity and potable water, and the terrible condition of the road from Enwang to Ibaka. Fishing inputs are also too expensive and she has not been able to obtain any loan to build up her working capital in the last five years.

Achievements

MH has successfully put herself through the university from the proceeds of the fish trade. She had gained admission into the University of Uyo to study psychology while her husband was alive but deferred it at his death. About a year after the burial, she continued the studies and got a bachelor degree in human psychology in 2008. She has also successfully trained her children. Her last child is in her final year in the secondary school while the others are in the university.

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MH said her education enhanced her political participation in the community and helped her assume a positive attitude to life without attributing every adverse experience in life to witchcraft. It also helped her take smarter decisions in her business. She is an inspiration to many women. MH had held the position of Women Leader in the People's Democratic Party (PDP), the ruling party in her Ward for 8 years. She is known as 'First Lady' by everyone in Mbo LGA. Also, in recognition of her contributions to the development of her community, the chiefs and elders gave her a chieftaincy title and made her a member of the village council. She belongs to many associations, and is the President of the Women's Fellowship in her church.

MH is the first woman in Ibaka to single-handedly employ the services of divers in the big fish business. This ensures uninterrupted supply of fish during the fishing season. She was instrumental to the formation of the "Ata Nsiyak" group and has been its president from inception. "Ata Nsiyak" literally translated is a question: "what type of fish do you eat". This confers a feeling of class distinction on members since membership is restricted to few seemingly prosperous, highly respected big fish marketers. She was also instrumental to the formation of the Big Fish Boat Owners Association and was its president from inception till 2007 when she decided to relinquish the post to a man. She is the leader of the fish market association at Ibaka beach and all disputes are brought to her for settlement. Registrations into the fish trade at the beach also pass through her office.

Future plans

MH plans to train all her children to the university level because according to her, when one is educated one can do business wisely. She also plans to apply for a job with the government using her brand new certificate while still continuing in her fish trade.

Case 6: Mma Okon (MOK), medium-scale trader with daughter in the trade

MOK is from Etebi in Esit Eket, a neighbouring Local Government Area, east of Mbo AKS. She is 50 years old, is in a second marriage after losing the first husband in an accident, and has a total of eight children. Her father was a fisherman while her mother was a big fish trader and had a regular supply from her husband's and other boats. MOK helped her sell the fresh fish and the proceeds were used for family upkeep.

Early life, education and marriage

MOK was born and brought up in Okposo, a busy semi-permanent fishing settlement located between the Cross River and the Atlantic Ocean, known for huge landings of fish and crayfish. MOK only completed her primary education and married early because the culture those days did not support education of female children, believing it amounted to a waste of money since they would end up in someone else's kitchen. She lived in Okposo with her husband.

Initially, MOK's husband was operating a transportation boat between Okposo and Ibaka but later he joined the fishing business. She had five children for the husband, three boys and two girls. Unfortunately, MOK's husband died in an accident at sea. After the burial her brothers-in-law drove her out of their brother's house and took everything, including the working capital for her fish trade when she refused to marry one of them. She took her children and fled to her grand-parents' house in Etebi. After the mourning period she returned to her parents in

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Okposo. After about three years she married the current husband, moved with him to Ibaka in 1990, and had three additional children with him. They still live happily together.

Becoming and being a trader in big fish

MOK learnt the fish trading business from her mother. She says her grandmother was also a fish trader. She started her fish trade at Okposo and was able to buy and sell fish because she was born there and she had already been known at the beach while helping her mother. She was given ₦10,000 by her mother to re-start the fish business after her husband's death. At the beginning she was selling *bonga* and crayfish because her capital was too small for the big fish business. Gradually she built up her capital until she could register with the big fish group ("Ata Nsiyak?"), which she did when she moved to Ibaka. For her there is never a dull moment in business. She explained that when they moved to Ibaka she could not start the fish business immediately but was making pastries for sale at the beach and Ibaka markets and using that time to also familiarise herself with what was going on at Ibaka beach. She could bake a bag of flour in a day and sell everything. When she started selling on credit the business almost collapsed, so she decided to quit and resume her fish trade which, she says, is in her blood.

As a newcomer to Ibaka she had to undergo an initiation to be allowed to buy and sell fish at the beach. She was thus initiated into the "Ata Nsiyak?" group. The initiation normally involves the introduction of the prospective trader to the executives and members of the group by a sponsor who has to be a member, in a ceremony, with the presentation of the following items:

- 2 crates of soft drinks (Coca cola or Fanta),
- 1 bottle of Schnapps
- 1 bottle of *ogogoro*, (a local gin brewed from palm wine and sold in local communities all over most of the southern and central parts of Nigeria);
- 2 packets of cabin biscuit;
- ₦20,000 (about \$150) .

As explained above, the name "Ata Nsiyak?" derives from the question "Ata nso iyak?": "What type of fish do you eat?", and is directed at no-one in particular. By this name the group is trying to prove to the *bonga* and crayfish sellers that the group deals with superior species of fish like red snappers, barracuda and catfish which are regarded delicacies, and not *bonga*, which is seen as 'poor man's fish'.

MOK owns a boat and has recently hired fishermen from Cameroun to fish for her using spears, guns and other equipment. She buys the fish cheaper from the fishermen because of the relationship established between them and the agreements made. The fishermen have to repay the loan gradually from money made during each fishing trip. The balance is paid at the end of a fishing season. The boat owners are normally entitled to buying all the fish caught by their boats but have to pay cash. When they do not have enough cash due to large catches, they quickly arrange the sales to their customers, the retailers from the cities who come every day to buy the fresh fish. From the proceeds they pay the fishermen. When there is a glut the fishermen can also allow their madam to give part payment for fish and take the rest on credit to pay back within an agreed period, usually not more than a week. Other women buy directly from other boats owned by men, at a slightly higher price, and sell to their customers from the

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cities for cash and credit at a fixed price agreed to by every member of the group. There is thus no undue competition.

MOK has a capital base of about ₦250,000 in cash and fish worth about ₦200,000 with her customers in the cities. Big fish sells for between ₦250 and ₦300 per kilogram from the boat depending on the species and the season, while the wholesalers sell to their customers for between ₦500 and ₦650 per kilogram. Her customers come from Port Harcourt, Rivers State, Aba, Abia State, Owerri, Imo State as well as Eket and Uyo AKS. She knows all her customers and does not mind giving those she can trust fish on credit..

Support and assistance

MOK belongs to the Apostolic Women's Fellowship. This group supports her spiritually and morally. She also draws support from her business group, "Ata Nsiyak?" They visited her when her mother died and supported her with a donation (₦100,000). She is also one of only two women members of the Big Fish Boat Owners Association at Ibaka Beach. They wield a lot of influence at the beach.

MOK was also assisted by the then Nigerian Agricultural and Cooperative Development Bank (NACB). In 1993, as a member of a self-help group, she was granted a loan of ₦48,000 to purchase her first outboard engine under the UNDP/ IFAD-supported fisheries project. She successfully paid back that loan. MOK wished there could be another loan like that because the interest rate was low and the processing time short. According to MOK, government loans are cumbersome and the conditions can be impossible. When in urgent need of money, she gets it from the money lenders on agreed terms of payment. Even though the interest rate is high, she says it is timely and the terms are flexible.

Happy/ sad moments

MOK feels happy and fulfilled that the children she had in her first marriage are all alive, well and educated despite all her initial difficulties. One thing that makes her sad is the death of her brother and mother. She is now the one taking care of her late brother's five children.

Challenges

The greatest problem MOK faces in her fish trade is lack of cold storage facility. She says sometimes she sells at a loss just to get the fish out of her hands. The nearest cold storage facility is at Oron, about 45km away. Another serious challenge to the fresh fish business is debt. Her customers sometimes go away for a long time with her fish, holding on to part of her capital, a situation that calls for a large capital base. For boat owners like her, when some fishermen do not live up to their obligations, it ties down the advance paid and delays the recovery of the money. Loss of inputs is also a serious setback for MOK. She lost her first boat and engine to a thunder storm and this brought her great difficulties until she was able to acquire a new one.

Achievements

Despite all the challenges MOK has recorded remarkable achievements. She has been able to buy land and build a house in her home town, Etebi. She also used her profit to train and take care of her children from the first marriage. They have all successfully finished secondary

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school and her first son is working with Exxon Mobil - an oil company operating in Akwa Ibom State. Her first daughter is an established big fish trader in Ibaka. She is married and has one child. MOK owns a boat and has been able to hire a fisherman from Cameroon to fish for her. The fisherman is paid ₦300,000 and comes with his fishing equipment. At Ibaka the fishermen are provided with accommodation by the boat owner who also stocks the boat with fuel, water and food during every fishing trip. The terms are the same for every fisherman who comes to Ibaka to catch big fish for boat owners.

Future plans

Mary plans to get a Lister electricity generating set to support her business. She intends to buy deep freezers so that she does not have to travel long distances to store her fish. This will also help her buy fish anytime it comes. She said with those facilities she would be able to buy a lot more fish during the peak season and sell to make more profit.

Case 7: Sissy Glory (SG), daughter and grand-daughter of a big fish trader

SG is about 35 years old . She is the first daughter of MOK and the fourth generation fish trader in her mother's lineage. Her great-grandmother was a fish trader as well.. She is a very enterprising young woman, involved in the big fish trade and other income generating activities.

Early life, education and marriage

SG was born in Okposo and attended primary school there. As the first child in the family, she spent her early years with her parents, helping her mother in her fish business. She could recall how she used to follow her mother to the beach at Okposo to get fish and process and sell during her primary school days. She was however sent to her Etebi for her secondary school education. When her father died life became very difficult for them, so she could not complete secondary education. They moved to live with her grandmother at Okposo and she started hawking fish to help her mother. She was also helping her mother buy fish at the beach and process it for sale. It was in the course of doing her mother's fish business that she met a Ghanaian fisherman who married her, got her pregnant and left a few years later for Ghana with the baby girl she gave birth to. Her Ghanaian husband never came back. She proudly announced that her daughter was seventeen years old in 2008, currently attends a tertiary institution in Ghana, and visits her at Ibaka occasionally.

Before remarrying, SG was encouraged by her mother to complete secondary school when they had made enough money for the school fees. She did, but disappointed her mother by failing the final examinations. She plans to retake the exam because she intends to further her education. SG came to Ibaka in 1990 with her mother to do fish business. There she met and married AV of Odu-Ebughu, Mbo LGA. Her husband is a politician and a successful businessman and they live together in Ibaka. Asked how many children she has now, she broke down in tears, saying she had been married for four years without a child for the current husband.

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Becoming and being a big fish trader

SG gathered her experience and expertise in the trade working with the mother, and, being the first daughter, she naturally took to the trade just like her mother did with her grandmother. She was given ₦20,000 to start trading in big fish. She started with buying fish from some of her mother's clients because her mother actually handed over to her concessions from two of her clients. Over time, with the establishment of cordial relationships, she could get some of the fish from the fishermen on credit, which she would pay back after sales. According to her, the fish business thrives only on trust; if one is honest with fishermen, one could always get some fish on credit. This is how her business grew over the years. SG has customers from the Rivers, Abia, Imo and Akwa Ibom States. In the past she used to take her fish to Inlaks Fisheries in Port Harcourt, but currently her customers come to Ibaka to buy, despite the bad road. She calls them with her mobile phone which has made her business much easier. Asked about her current capital base SG said she was trading with about ₦250,000 cash as capital, but that her creditors owed her almost the equivalent of that amount. She said one has to be financially strong to stay in the big fish business and that sometimes when almost all her capital goes into debt she sources for another two hundred thousand to put in the business, pending when the other money comes in. SG saves her money in the bank at Oron. She also operates a beauty shop for women in Ibaka where she sells all types of artificial hair embellishments, attachments used for braiding hair, cosmetics and other beauty accessories.

Support/Assistance

SG never received any assistance from government, NGO or any association to support her business. She gets money from her mother and her husband when she is financially down. She belongs to the Apostolic Women's Fellowship, saying that the group has helped her in many ways. They taught her how to take care of her husband, how to dress like a married woman and how to cook good meals. She said she used to wear skimpy clothes before. She is also a member of the Humble Ladies and Intimate Ladies Clubs, which assist their members in difficult times. Intimate Ladies visited her when her grandmother died and gave her financial assistance.

Happy/Sad moments

One thing that makes SG very happy is the fact that she is the mother of a grown-up girl. For her, at least she is a mother. Her greatest regret now is the fact that she has no child yet for her current husband. She said she has spent so much money on hospital treatments and medication, churches and herbal homes just to get pregnant, but without success. She said she loves her husband and is afraid he may send her away and marry another wife if she does not get pregnant soon. However, she believes that God will visit her one day.

Challenges

The problem SG finds very disturbing is debt. With almost half of her capital in the hands of customers she finds herself using her savings sometimes, just to stay in business. Lack of a cold storage facility is also a major setback for her. She suggested that the government should build a cold room in Ibaka where they can store their fish for a fee rather than having to

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transport the fish to Oron. She also complained about her inability to obtain credit to increase her capital base, the bad access road, the lack of potable water and electricity.

Achievements

Asked what she has done with her money SG says she has been able to take care of herself and support her husband in the family's upkeep. She has also acquired and stocked the beauty shop and is saving up for her future education.

Future plans

SG says she wants to study business management at the university after obtaining her secondary school certificate. She also hopes to buy deep freezers and an electricity generating set to boost her business.

Case 8: Mma Asu, (MA), small-scale, big fish trader

MA hails from Inua Abasi, a fishing hamlet in Effiat community close to Ibaka in Mbo LGA. She became a native of Ibaka by marriage. MA is 56 years old and has lived in Ibaka for about 10 years now. MA's father married two wives and her mother was the second wife. She has step- brothers with whom she has a good mutual relationship.

Early life, education and marriage

MA had no sponsor and she could not go beyond the primary education. She was nine years old when her mother died, leaving her with her father who was old already. This resulted in MA being taken to live with another family as a housemaid. She returned home at 16 to take care of her sick and old father until he died. Then she had to cope with her step-brothers who used her as a housemaid. She did household chores in exchange for food and occasional clothing.

When they thought she was old enough, her brothers married her to a poor fisherman from Idua Asang in Oron LGA. The marriage was like freedom from bondage for her. MA gave birth to three children, two girls and a boy. Her husband was fishing mainly for crayfish and she usually followed him to the river and creeks, gathering firewood while he fished. On their return, MA would cook for the family. The marriage became troubled when, against her advice and that of his parents, her husband took a second wife. He started beating her regularly, and, eventually, sent her back to her family indicating that he was no longer interested her.

After about three years, she re-married and became the third wife of an indigene of Ibaka. Her second husband was much poorer and sometimes gave her only two hundred naira ₦200 a week for household money. With no money of her own she joined in the picking of periwinkle at ebb tide for sale as a survival strategy. Other times she would glean for any leftover cassava tubers in fields that had been harvested already.

Becoming and being a big fish trader

While picking periwinkle at Ibaka she joined the group of indigenous women who decided they would not just watch strangers come and cart their fish away but participate in the fishery. They positioned themselves in the fish and crayfish marketing chain as middlemen between the

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fishermen and the external buyers from the cities and fixed the prices for the fish. However, as a stranger in Ibaka with no working capital of her own, nobody to borrow money from, and no association with any boat owner there, she could not benefit from that arrangement. As a last resort, she used her husband's social and kinship networks in starting her big fish business by going to Esuk Enwang, a village across the river from Ibaka, to buy fish on credit from some of her husband's relations. She would transport the fish to Ibaka, sell to the retailers, return the fishermen's money the following day and keep whatever little profit she made as her income. She did that on a daily basis and it helped her feed her children but was not sufficient for school fees for all of them. Only her first son could attend school.

She also picks palm fruits upland to sell, processes cassava roots into *garri* and *fufu* for sale, and offers herself as labour to other women, helping to process fish after which she is given some appreciation in cash, and she uses such income to feed her family. In the midst of these struggles and poverty in the family, MA gave birth to six additional children. Only three of them are alive. She blames the loss of her six children on the evil origins of their fathers' families. MA has managed to train her first surviving son through the secondary school.

Support / Assistance

MA has never had any assistance from the Government or NGO. She is a member of the fish marketing association. In 2008, the association helped her with a loan of ₦25,000, which she would repay with 5 percent interest within six months. She says before then she was struggling with the little money she could make from all the economic activities she was involved in. She said she would require a loan of not less than (₦100,000), with an interest rate of at most 10 percent per annum, which she thinks she could repay in six months.

General issues, HIV and AIDS

On awareness of HIV and AIDS in the state, MA said she did not know anything about it and had never seen an AIDS patient before.

Happy/ Sad moments

MA said she feels very sad whenever she recalls the death of six of her children. However, she is happy whenever she remembers her son who recently joined the police force. As a policeman, she hopes her son will provide the necessary support she may need to make life more tolerable.

Challenges

Lack of funds is a major constraint. She does not have any money and has no relations or friends who can lend or give her money. The death of her children is a challenge to her because she thinks they would have helped her a lot. She says her whole life has always been a struggle.

Achievements

She said her efforts paid off because her first son completed his secondary education and through the assistance of someone MA describes as an angel, joined the Nigerian Police Force

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in 2008. All her hope is on the son who she believes will assist in taking care of her and his siblings since she would soon retire from the tedious job of making a living from the fish trade.

Future plans

Since she is getting old, she is hoping that with the help of her son she will be able to build a house that she will rent out and use the money for her upkeep. She says she may not be able to carry on with the fish trade for much longer.

5.4.4 Analysing the stories

The big fish trade has many general characteristics similar to the *bonga* trade in terms of the mode of recruitment into the trade, the relationship with clients and customers and colleagues, the attributes that determine competence in the trade, agency and autonomy of the women, the challenges they face and their achievements. There are however some distinguishing factors which are discussed under the main issues of trade, recruitment, competence, agency and autonomy, challenges and achievements.

The big fish trade and recruitment into the trade

Big fish species landed in Ibaka include catfish, barracuda, snappers and many others. Unlike *bonga*, big fish is sold fresh, without any form of processing, directly from the fisherman, through the wholesaler to the retailer, and – on a good day – the whole transaction takes about three to four hours. This is because as a rule, all the fish traders and fishermen use a single landing point, shed and weighing scale. The fishermen help carry the fish from the boats to the shed and participate in the weighing process to establish the quality, quantity and amounts to be paid, which they collect in full from their respective customers or ‘madams’ before leaving the beach. Unlike in the *bonga* trade, there is no fish mammy mediating as middlemen between the fishermen and the wholesalers in the big fish trade. Because there is no processing, the traders’ main worry is how to dispose of the fresh fish or arrange for storage as quickly as possible before the quality deteriorates. From our enquiry and calculations the fish spends an average of three to four hours without any form of preservation before it is ready for sale because the fishermen do not carry ice on their fishing trips.

The big fish trade offers the women more free time and opportunities to diversify their economic activities and acquire additional skills or education because when all the fresh fish bought from the fishermen are sold off successfully by the fish trader at the beach, they are free for the day to pursue other activities. This explains how MH could attend the university despite running a fish trade and water transportation business, SG is operating a beauty shop in addition to her fish business, and MB manages to farm and process cassava and palm fruits for sale in addition to the fish trade. It is also easier to delegate in the big fish trade.

The big fish traders in Ibaka have higher educational qualifications than the *bonga* women and seem to be more ambitious. MH, the chief in Case 5 has a BSc degree and hopes to get a government job while continuing with her fish trade, SG (Case 7) completed secondary

The women fish traders in Ibaka and their trade

school and is planning to further her education, while MOK (her mother, Case 6) and MB (Case 8) completed their primary education.

Half of the big fish women in the case study, MOK and her daughter SG, started in the way process of helping their mothers in the trade and passing through the apprenticeship process before establishing on their own. Their mothers also provided them with the initial working capital. MH's mother did not want her daughter to get involved in the fish trade so she carefully selected a husband for her who had a regular job and lived upland, over 900km away from Ibaka. However, she ended up in Ibaka and into the fish trade. MB who lost her mother very early. Her friends introduced her to the trade but gave her no working capital. She resorted to the use of her husband's social capital and network to obtain fish on credit from fishermen at Esuk Enwang, a fifteen minutes boat ride from Ibaka. She sells at the "Ata Nsi Iyak" shed at Ibaka and returns the money the following day to ensure continuous supply. All traders married before the age of 20 and started independent economic activities soon after, to have an independent source of income.

Competence

The big fish traders need additional specialized skills in addition to the general skills required in the fish trade by all the traders. They need better communication skills than the *bonga* traders and a wider network of customers. The perishable nature of the fresh fish structures their trading practice around reducing spoilage losses. Therefore, it becomes imperative to hand the fish over to the retailer as quickly as possible, like the proverbial hot potato. Long possession of the fish shows a lack of commercial leverage. The relatively time-consuming procedures of bargaining are reduced here because the price per kilogram is fixed by the women at the beach depending on the quantity of fish landed, the species and the season. The time limitations faced by the women call for ingenious and distinctive marketing arrangements. For example, MH (Case 5), MOK (Case 6) and SG (Case 7) all acquired mobile phones as soon as the network coverage was extended to Mbo LGA and they all said how helpful it has been in helping them contact and relay information to their numerous customers far away, especially during the peak season. They also rush left-over fish to the nearest cold room at Oron or store it with ice in deep freezers in their houses, for sale the following day.

Their higher literacy level enables them take better and more informed business decisions, which gets them higher profits than less literate colleagues in the big fish trade. They also kept some records of their business activities, most especially MH and SG who were running two businesses simultaneously. They were able to make practical and conceptual distinctions between working capital, capital growth, expenses, and disposable income, although they used local terminologies. They struggled hard to keep their working capital separate from their disposable incomes under incessant pressure of household and extended family commitments, and worked hard at increasing and re-investing their working capital.

The number of years of experience also seemed to have a positive effect on competence in the big fish trade because many of the traders had more than 15 years of experience, apart from their years of apprenticeship. However, literacy, capital outlay and the level of exposure seemed to have a positive influence on performance in the trade as illustrated in the case of MH who has the least number of years of experience (10) in the trade but is doing better than

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the rest in her group in terms of her achievements. The age of the big fish traders, even though determining how many years they have spent on the trade and consequently, the number of years of experience, does not seem to contribute to the ability to trade in big fish successfully and sustainably as illustrated in Case 8. The dynamics of the big fish trade calls for extraneous capabilities as witnessed in the case study results.

Agency and autonomy

The big fish traders in the study demonstrated a high level of agency and autonomy probably due to their higher educational and income levels. The fishery economy and social organization provides those with knowledge, skills and experience with opportunities to take matters into their own hands and improve their own situations and that of their dependants. Moreover, all the cases also reveal keen and innovative entrepreneurship. Even MB (Case 8) manages to also exercise her agency despite the hardships she has endured.

MH (Case 5), even though a widow, has managed to educate her five children and herself at the same time. She organizes the fish trade and water transportation businesses simultaneously, while also attending lectures at the university. SG (Case 7) has realized she needs to further her education and has actually gone ahead to set aside the money for it without reference to her husband. Her mother, MOK has built her own house at Etebi, and contributed to the construction of the concrete house for her and her husband Ibaka. The zero resource-pooling behaviour practiced by the women fish traders makes these achievements possible because financial independence ensures social recognition, high self esteem, autonomy and economic power which together command societal recognition and political power (Falola 1995; Ekechi 1995). Individual autonomy is seen to re-enforce, not contradict, the capacity and desire to form strong bonds of mutual benefit with kin, spouse, friends and community members.

MH and MOK have relationships with the retailers and the fishermen that are both hierarchical and multi-faceted, which can be compared to that between the fish mammy and the *bonga* fishermen and networks of fish retailers. Also to these relationships the concept of 'matronage' (Niehof 2007) applies, the big fish traders being the matrons.

Challenges and achievements

The challenges faced by the big fish traders are similar to those described for the *bonga* traders except for the fact that while *bonga* traders complain of the lack of fish processing facilities, theirs is a lack of cold storage and ice-making facilities. The perishability of the fresh fish puts them under greater pressure to dispose of the fish than the *bonga* traders who can quickly process. MH (Case 5) and MOK (Case 6), who own their own boats, also complained of high prices of fishing inputs and of insecurity at high seas, resulting in loss of fishing inputs.

Despite these challenges significant achievements have been made by the big fish traders. They can sustain themselves and their children, pay their children's school fees and take care of all their needs, and support members of their extended families. They also command more power and recognition at the beach than the *bonga* and crayfish traders. They managed to sustain the fish trade and remain in business, despite the lack of financial or other assistance from government, NGOs, private sector organizations or their husbands.

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MH has educated herself up to the university level and is encouraging all her children to do so too. MH and MOK own boats and have been able to hire spear fishermen from Cameroun to work for them. They successfully organized groups which benefitted from a loan of fishing inputs and working capital from the NACB. MH is a political leader in her constituency, a chief in her LGA and a member of the Ibaka village council, as the only women's representative. She successfully formed, and still heads the "Ata Nsiyak" group which fixes the prices of big fish daily at the beach. She also formed the Big Fish Boat Owners' Association in Ibaka and headed the group for several years. MOK successfully trained and set up her daughter, who is doing well in the big fish trade and has opened a beauty shop to diversify her sources of income. MOK built a house in her village on land she bought.

5.4.5 Crayfish traders

Case 9: Mma Aty (MA), large-scale crayfish trader

MMA is about 48 years old and comes from Odu Ebughu, a fishing community near Ibaka. Her father was a fisherman, her mother processed and sold the fish. She has five elder sisters and two junior brothers. She lives in her house with her seven children (three boys and four girls) and has been married three times. Her parents are dead.

Early life, education and marriage

MA was born in Odu Ebughu. Because of poverty she could not go beyond primary 6. When she was 14 years old her mother died. She hawked food items to support her father in feeding eight children. After her sisters got married, leaving herself and her two brothers, their father took ill and became bedridden. In order to raise money for his treatment, they married her off in 1978. She did not like it because she wanted to go to school, but – under pressure – she married Ete Uwak (EU), a commercial motorcyclist who was much older than her. He maltreated her, beating and cursing her regularly. She endured it for twelve years, giving birth to four children. When she could no longer cope she returned to her father's house with her children. Shortly after she returned home, one of her sisters became ill and died despite MA's spending all her savings in a desperate attempt to save her life.

Even though she had decided never to remarry because of her previous experience she was blackmailed into another marriage after two years in her father's house. According to her, the man used the police and *juju* (black magic) to threaten them. MA and her family could not withstand the threats. She succumbed and married the man. Her second husband was worse than the first. She gave birth to a son but he simply ignored them and so she left him. When the husband's efforts to get her back failed he demanded refunding the bride price, which she managed to do herself. Later on, when she was better off, she met another man and decided to marry him. She had two children from him but the man was constantly ridiculed by his friends because MA was not only wealthier than him but also older. Feeling insecure, the man asked for a separation. When her appeals to stay together failed she left with her children in 1998.

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MA's business ventures

Her apprenticeship in the crayfish trade was abruptly disrupted with her mother's death, Her sisters were in school so she started hawking food items to help the father support the family. During her first and second marriages she was into petty trading. Her friend introduced her to the petrol business at Ebughu after she left her second husband. They were bringing petrol from Uyo and Oron to Ebughu and Ibaka for sale to fishermen and transport boat operators. It was a lucrative business. Later, she was introduced to illegal bunkering of petroleum products at sea through an agent. With her profits from the petroleum business she decided to diversify into importing alcoholic drinks from Cameroun and Equatorial Guinea to sell to Igbo traders in Nigeria. The business boomed for some years before her fortunes started dwindling due to restrictions on travelling between Nigeria and Cameroun occasioned by the Bakassi Peninsular crisis. When their boat was sunk by the Camerounian gendarmes on one of the trips, she lost her agent and all her goods. Her business collapsed and she moved to Ibaka. At Ibaka, she used her savings to open a *bukka* (a food canteen). She cooked different types of food and meat to sell at the beach. The business was good so she decided to diversify into the crayfish trade in 2003. The *bukka* is still functioning. She also owns a fashion design shop where she has employed other women to sew for her, a storage facility for crayfish where she charges money for storage of unsold crayfish, and a shed at Ibaka market where she displays her crayfish for sale and rents out when she is not using it. All these earn her money apart from the crayfish trade.

Becoming and being a crayfish trader

MA was introduced to the crayfish business by another friend of hers, Mma Nko (MN) who ceded some of her clients to her until she developed her own clientele. At that time, the crayfish 'wrapping' sold for between ₦15,000 and ₦20,000. She started the trade with ₦50,000 which could buy only two to three 'wrappings', depending on the season. MN taught her the rudiments of the trade, such as how to identify a genuine 'wrapping', recognise good quality crayfish and connect with reasonable clients at the beach and trustworthy customers at the market. Presently, MA has a capital base of about ₦300,000 and a shed at Ibaka market. At the time of the interview, she had just returned from fishing settlements across the river where she bought eight 'wrappings' at ₦35,000 each. She sold each wrapping for ₦37,500 to her customers who were already waiting at her shed. During the peak season, the price drops to about ₦25,000 and MA buys up to 12 bags and sells at ₦28,000 each, making more profit. The good thing about crayfish is that if well smoked and with optimum storage conditions it can keep for more than three months without spoiling. This makes it easier article to trade, if you can mobilize the high capital outlay required, master the tricks and cope with the erratic nature of the trade.

MA attempted to introduce one of her sisters to the business at Ibaka but according to her, the sister was dishonest in her transactions which led to the loss of clients, customers and working capital. Shamed and embarrassed, the sister left Ibaka and moved to a smaller fishing community in Ibeno LGA where people did not know her, to start afresh. There she straightened out and got a loan of ₦5,000 from a friend to restart the business. Trustworthiness is of paramount importance in the fish trade.

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Happy / Sad moments

MA's greatest regret is that her female children have refused to go to school despite her efforts, while she never had the opportunity when she was young. The first two daughters stopped at junior secondary one and got married. The third daughter went up to junior secondary three and the quitted. She had a child out of wedlock and has abandoned home. MA is quite unhappy about her daughters' behaviour; they are neither in school nor working with her in the fish trade. Her two sons are in school and the last one is at home trying to secure admission into a university. The death of her mother and sister also makes her very sad because she feels very lonely without them. However, MA is happy about the fact that she has been able to fulfill her dream of building a cement house in her village which their father could not build in his lifetime.

Support/ Assistance

Apart from her crayfish business MA depends on rent from her building in Ibaka to help her maintain her household. She has not obtained any financial assistance from anywhere. She is a member of the Apostolic Women Fellowship of her church and obtains moral and spiritual support for herself and her children from the association.

Community concerns, HIV and AIDS

There are no cultural barriers against ownership of property for women in her community. MA's house in the village is built on the piece of land her father gave her. However, certain gifts are usually given to the elders, as prescribed by custom, before you can erect any structure. Such gifts include food items like fish, yam, plantain, palm oil, goat, hot drinks, and a token fee. She has heard about HIV and AIDS but has never seen a person suffering from it.

Challenges

MA says her greatest problem is the high cost of crayfish and lack of access to capital. She says sometimes her customers would return on subsequent market days to lament that they could not make any profit from their sales and she would be forced to reduce the price for subsequent bags, out of sympathy. This is how she keeps her customers. Sometimes huge losses are incurred such that it affects the capital. Prolonged debts also affect her business. According to MA, even though her customers sometimes owe her for weeks, if she owed any of her fishermen clients beyond one week, they would stop selling to her. Then, pointing at her customers from the city she said: "The rate these women owe can put somebody out of business", and they all laughed.

The last three years have been hard for MA. Feeding her seven children and other dependents has been very challenging and clothes are bought only occasionally. She has a grown-up son who is presently at home without a job. He wants to further his education but has been unable to secure admission into an institution.

Achievements

For MA, being alive and well despite all her terrible experiences in the hands of men, is a great achievement. During the years of good sales, she was able to build a house in Ebughu for her

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brother and sisters to live in. She built another one in Ibaka. She also counts her seven children as part of her achievements in life.

Future plans

MA plans to send her son to the university as soon as he can secure admission. She also plans to expand her food canteen business to enable her earn more income.

Case 10: Sissy Rosy (SR), a medium-scale crayfish trader.

SR is 38 years old. She is the eldest of eight children, seven females and one male. Six girls are married, her brother is in secondary school and the youngest girl is in primary school at home. SR was born in Effiat, Mbo LGA. Her father had always been a fisherman and was catching crayfish while her mother processed the product and sold it. She has five children; four boys and one girl, and her parents are both sick and cannot support themselves.

Early life, education and marriage

SR was born in Effiat, lived with her parents. She attended primary school until primary five when had to stop due to the lack of money for school fees. As the eldest child, she assisted her mother in running the house and the crayfish business. Her parents usually left Effiat for Utan, a semi-permanent fishing port where they would spend up to two weeks fishing for, and smoking crayfish. SR and her siblings would carry the crayfish bags from the beach to the house when the parents arrived from the fishing port. She also followed her mother to the market on market days for the sale of the product. She later followed her parents to Utan where they settled. She remained in Utan and continued helping her mother in processing and selling crayfish. At age 18 she met and married Ete Oku (EO), a fisherman like her father. A few years after the marriage, they moved to Ibuot Ikot, a fishing hamlet in Ibaka community. She worked hard at her crayfish trade and supported the husband to build a cement house at Ibuot Ikot, where EO decided to marry a second wife. He moved her into their house, introduced her to the crayfish trade, and ceded some of SR's concession from his boat to her. He also introduced her to his colleagues and advanced her money to start the trade. This caused a rift between SR and her husband, and she is still very bitter about it because she says another woman was brought to reap what she had sewn.

In the family, major decisions are taken by EO, but SR believes that the co-wife keeps their husband's accounts and money, which has added to SR's annoyance and frustration. She said that when EO took ill some years back, and had to sell his fishing equipments to pay for his hospital bills, she sustained him until he got back on his feet. When he got well and reactivated his fishing business, all he did to pay her back was to marry a new wife. In 2003 EO was appointed the village head of Ibuot Ikot, an office he is still occupying. As a village head, he is not expected to go fishing, so since 2003 he has been leasing out his equipment. According to the culture in Ibaka, each wife is obliged to take care of her children and train them if she wants them to become useful citizens in the future.

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Becoming and being a crayfish trader

While helping her mother at Utan she and her friend decided to start their own crayfish trade. They initially started a joint business because of insufficient working capital. Being more experienced than her, the friend showed her the intricacies of the trade and with loans from her mother and her friend, she was able to stand on her own feet. SR bought fresh crayfish from her husband and other fishermen's boats, and processed and packaged them in 'wrappings'. She had to pay cash for crayfish from her husband because fishermen, needing their cash urgently for subsequent trips, sell only for cash. When her husband stopped fishing, SR abandoned smoking fresh crayfish and started buying the processed crayfish in bags from Ibaka beach like all her colleagues. At the Ibaka market SR owns a shed and has three regular customers from Uyo and Aba. Being an indigene she can sell crayfish at the market every: non-indigenes can sell only on main market days at hired spaces.

The crayfish trade is the only major economic activity for SR and she has made good money from it over time. She owns a transport boat but is not directly involved in the running of the boat. Her current capital outlay is about (₦150,000. When the crayfish business was good, SR had a working capital of up to ₦250,000, and she could buy up to 20 bags of crayfish in a week during the peak season. Currently, she gets about ten bags in a week, half of which she collects on credit and pays for after sales the same day. She occasionally gets involved in subsistence farming, planting cassava and vegetables.

Support/Assistance

SR belongs to The Apostolic Women Fellowship. The group supports her morally and spiritually. They visited her when she lost her grandmother. She is a member of the Fortune Ladies Club, a social club in the community to which most economically active young women in the community belong. It provides both financial and moral support when a member is dead or loses a relation. SR humorously named it the "club for the dead". She has never benefited from any government or NGO assistance, even though she has been looking for the opportunity. She thinks that a loan of ₦300,000 would improve her business, and if the interest rate is less than 10 percent per annum, she could repay it in one year.

General issues and HIV/AIDS

She said even though she is the senior wife of the chief of Ibuot Utan, she is unable to contribute to the development of the community. When asked about her knowledge of HIV and AIDS, she said she heard about it over the radio and also at the health centre where she was attending ante-natal clinic but has never seen an AIDS patient. However, she thinks that if AIDS is a physiological dysfunction of the human system, it can be cured, but if it cast upon a person as a punishment by witches, there might be no cure for it.

Happy/Sad moments

SR feels sad and aggrieved that her husband is closer to the co-wife and does not appreciate her, even though she has supported him all along. He married a new wife and set her up in the crayfish business after everything SR did for him. SR also felt quite relieved at being able to tell us the story. Despite this she said she welcomes her husband's relations when they visit, serves them food and generally treats them well. She said she is currently feeding and

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educating one of his female relations who lives with her. However, she feels very happy that she and her children are alive and well, and that her first son is in the secondary school.

Challenges

The major constraint to her crayfish marketing business is the lack of capital to increase her volume of trade. Her other challenge is Liquidity problem caused by debtors who delay the payment and, lack of infrastructural facilities, are other challenges. SR thinks that the high cost of inputs has contributed to the high prices currently paid for crayfish, which reduces the profit margins, engenders credit sales, and depletes their working capital.

Achievements

SR used some of her profit to purchase a boat which she hires out for water transport. Whenever her crayfish business brings in low returns, she depends on the additional income from this boat. She supported her husband to build their concrete house at Ibuot Ikot and takes care of all her children's needs, including school fees. SR said that it is a great achievement for a woman to clothe herself and look good, and this she has done successfully. She also supports her siblings and parents by sending them money regularly. She has some savings in the bank at Oron.

Future plans

SR plans to send her children to the university, so they can find regular jobs outside the fish trade. She also plans to renovate her father's house in their village for her parents to live in. She hopes to learn hair dressing and set up a beauty parlour in Ibaka.

Case 11: Sissy Udy (SU), a small scale crayfish trader

SU is 34 years old, born in Etinan LGA. She became a native of Effiat in Mbo LGA by marriage. She has been living in Ibaka since 2004. She is the eldest daughter and has a sister and four brothers. Her parents are so poor that her younger siblings earn a living by doing housework for people. Only two of her four children are survived, a boy of five and a girl of three. She lives with the children in her husband's house in Ibaka. She attends the Apostolic Church.

Early life, education and marriage

SU was born in Etinan and lived with her parents until she was five when her maternal aunty took her to Calabar, Cross River State, where she grew up. Her aunty was supposed to educate her up to the secondary school level in return for her labour in the house, but after primary six she was deployed to hawk food on the streets of Calabar. Her father had died and the mother could not intervene. She endured the situation for many years and in the process of hawking wares met Ete Efo (EE) from Effiat AKS, who wanted to marry her as his second wife. Using this as an escape route from her aunty SU married EE and later moved with him to Ibaka.

EE married another wife soon after marrying SU even though he could not take care of his family. At the time of the interview he had three wives and a total of 12 children. He stays with each wife in turn but he has not been consistent with SU, sometimes abandoning her and

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her children for up to three months. SU thinks her two children are enough for her. For SU, polygamy is bad and affects women adversely, especially in terms of isolation. When she threatened to leave because of frustration and disappointment, her husband threatened he would collect her children from her. She stayed for the sake of her children and since the man allowed her to live in his house, continued to struggle and take care of herself and her children.

Becoming and being a crayfish trader

When the husband abandoned her after marrying the third wife, SU's friends rallied round and assisted her to start the crayfish business. She pays great tribute to one of them, S who took her through the intricacies of the crayfish trade and helped her register with the market and beach unions. Initially, they were trading together but later she obtained a loan of ₦10,000 from an established crayfish trader to start her own trade. The loan was offset through offering her services as labour in drying the woman's crayfish over an agreed period of time while carrying on her crayfish trade. Even after defraying the loan she continued the casual labour work, trying to earn some money and build up her capital. When she had saved up to ₦10,000 she borrowed ₦20,000 from a money lender, at a monthly interest rate of 5 percent and added her savings in order to increase her scale of operation. She was still repaying the loan at the time of the interview. She also has earned the confidence of a few of her business partners who now grant her short-term loans in the form of extra bags of products, which she pays for the same day after sales. She thus sells her crayfish for cash only. Her customers are the Igbo traders from Imo and Abia States. She rents space at the market to keep her crayfish and sell. SU said to make ends meet she sometimes buys leftover fresh fish from the beach to hawk around the community. She also buys yam from the hinterland to sell at Ibaka during the harvest season.

Support/Assistance

Like most of her colleagues in Ibaka, SU never received any assistance from any church, social club, government or NGO. She said that in 2007 she applied for an outboard engine, a boat and some fishing gear that the government had promised them, but did not receive any response. She would need a loan of about ₦200,000 which she believes she could repay in one year if the annual interest rate is lower than 10 percent. SU belongs to the Apostolic Women's Fellowship in her church. She is also a member of the Fortune Ladies Club that most young women in Ibaka join. The club gives moral and financial support to members for burial ceremonies.

Happy/Sad moments

SU's happy moments, which are rare, are when her husband visits and she has the opportunity of having his attention and share meals together. Sad moments are when she is asked to come home to pay her mother's medical bills (from her meager savings).

General issues, HIV and AIDS

SU is so busy with her struggles that she is not really aware of what is happening around her. She heard about HIV and AIDS from the radio and the health centre at Enwang, when she there went for antenatal check-up. She says she has never seen an HIV positive person.

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Challenges

For SU, the greatest constraint in the five years of her business is lack of capital. She also complained of being abandoned by the husband, the poor condition of the access road, and the general lack of infrastructural facilities.

Achievements

SU has managed to feed herself and her children and to pay some of her mother's medical bills.

Future plans

SU said she is working so hard because she plans to give her children quality education so that they may find good jobs outside the fishing community and change her condition for the better.

5.4.6 Analysing the stories

The crayfish trade and recruitment into the trade

The crayfish trade benefits from the social networks, relationships of trust, moral and financial support common to the fishery economy in Ibaka, but presents a somewhat different marketing process than the *bonga* and big fish trades. The crayfish bought by the women are already smoked and packaged by the fishermen into 20 -25 kg jute bags called 'wrappings' before they are brought to Ibaka beach from temporary and semi-permanent fishing communities along the river. Only very few women whose husbands catch crayfish, buy it fresh, process, package and sell at Ibaka market. "Barrow boys" normally transport the crayfish bags from the beach or the women's houses to Ibaka main market where the sales take place. Some of the indigenes among the traders own sheds in the market while others hire space. Customers come from various places, such as Imo, Abia, and Anambra States in the hinterland. The market sells every five days, though the indigenes sell daily. The crayfish boats arrive at Ibaka beach in the early morning on a market day or the evening before, to sell to the wholesalers. Wholesalers with enough working capital sometimes collect crayfish bags from their clients offshore during periods of scarcity, to ensure a regular supply to their customers.

The crayfish traders were all introduced to the trade by their friends, although SR (Case 10) got her initial training from her mother. It seems the crayfish trade is relatively easy to join because it is market and not beach based. Stronger ties, trade relations, social networks and regulations make it more difficult to enter the *bonga* and big fish trade. You can join the crayfish trade more easily if you have a crayfish trader friend or relation who owns a shed at Ibaka market, because she will help you with registration at the market and the beach, show you the intricacies of the trade, and most importantly, introduce you to some of her clients and customers. Working capital for starters generally comes from loans from friends or relations or personal savings (Cases 9 and 10), or from short-term loans (Case 11). The traders are generally younger than the *bonga* and big fish traders. Their educational qualifications are lower than those of the big fish traders and higher than in the *bonga* group.

Competence

In the crayfish trade, specialized skills are also needed apart from the general skills required for fish trade in Ibaka. The way the crayfish is bagged after processing presents its own peculiar problems. It takes an expert to recognise a good quality bag of crayfish merely by lifting it up and inspecting it through the cellophane, and opening it to look at what is on top. However, even though the union has been able to ensure that different grades and qualities are not mixed and sold to unwary traders, they have not yet been able to control the quantity of paper used to line the bottom of the sack. The traders' low literacy levels and lowest number of years of experience do not seem to affect their competence in the trade, as in the big fish trade. The years of experience seemed to have no effect on competence if you had a large capital outlay as in Case 9. However, if you have only a few years of experience and low or no capital as in Case 11, you could be regarded as incompetent and non-performing in the trade.

Agency and autonomy

The crayfish traders also demonstrate autonomy, especially those from the fishing communities. SR (Case 10), even though very bitter, carries on with her life despite the husband's marrying a new wife. She even goes ahead and diversifies by acquiring a boat for her transportation business, to protect herself against adversity in the fishery business. MA (Case 9) has built a house in her own village and another one in Ibaka where she lives with all her children. She left her first and second husbands when they maltreated her, and even refunded her bride price to one of them by herself, just to get her freedom. This shows the high level of self esteem, agency and autonomy often demonstrated by women traders from most coastal communities (Verstralen and Isebor 1997; Williams 1999; Niehof 2007; Overa 1993, Alexander 1995). SU on the other hand, coming from an upland community, a different ethnic group and culture, is grappling with the realities of marrying someone from a fishing community, and is only currently being helped along, on her way to independence and autonomy.

Challenges and achievements

Since the crayfish traders share the same living and business environments with the bonga and big fish groups, they experience the same institutional and cultural challenges. However, the crayfish and bonga traders pay double levies, to two administrative bodies operating at the beach and the market, while the big fish traders pay only once since they operate only at the beach. Some other personal challenges occasioned by the cultural norms of the people were identified in the case of MA (Case 9), who was physically and mentally abused by her husbands, without any protection from her family, her in-laws or the law. In a society and culture where women are regarded second-class citizens, wife abuse is rampant and taken for granted. In most communities women cannot exercise their independence and have no autonomy even when they are the breadwinners, and they subsist in such relationships all their lives. One of MA's main achievements is overcoming such odds and going ahead to run the

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petroleum products, food and crayfish businesses. She also built two houses single-handedly and rented out part of her building in Ibaka to tenants (some of whom men) for extra income.

Another challenge faced by the crayfish traders is dwindling resources, which contributes to the high prices of the product. They observed that smaller sized crayfish are being caught, implying that the adult population is dwindling and fishermen are now fishing further into the creeks around the breeding grounds, which will further reduce the maturing population. Also, the mangrove forests that provided the breeding grounds for crayfish are being rapidly depleted due to the dependence of the fish traders and the community on its wood for smoking fish and cooking. This further affects productivity negatively, resulting in higher prices. Fearing that their dwindling capital might not support the rising prices in the future, the crayfish traders are struggling to diversify their economic activities and to educate their children, to enable them get jobs out of Ibaka so as not be involved in the crayfish trade. However, not all those who can afford the school fees are lucky to have children willing to study, as the example of MA shows.

5.5 Discussion and conclusion

5.5.1 Livelihoods and livelihood strategies of the fish traders

The stories show that with the strategic location of Ibaka at the coast, limited assets and resources, and few alternative opportunities for livelihood generation, the population is dependent on the fishery for their livelihood and fish trade is the primary economic activity of the women, providing income for the households. However, other sources of income were identified including petty trading, dressmaking, food vending, hair dressing, weaving of thatch and baskets, subsistent farming, providing labour, leasing of market sheds, transport boats, outboard engines and storage facilities to others, apart from the fish trade. During the planting season over 90 percent of the women find time to plant cassava and vegetables for household consumption. Other activities are mostly carried out simultaneously with fisheries activities. In all fish trade groups, women either sell the fish fresh, or process and sell while the suppliers of the fish are men, who are the fishers. The fish trade is therefore a gendered activity.

Fish processing and trading are predominantly women's jobs in Ibaka as in many other riverine and coastal fishing communities in Southern Nigeria (Williams 1999; Alamu 1993). The fish trade provides the women with income used for the maintenance and upkeep of their households, paying for their children's school fees, healthcare and other needs. The women in the stories were either trading in bonga, crayfish or big fish. To succeed in the trade they have to possess both general business skills and the relevant specialised skills. Together with several years of experience these ensure their proficiency on the job, though, naturally, some are more experienced than others. A few of them also exhibit experience across trade groups and cross group lines as a survival strategy, in a bid to make ends meet, as demonstrated by MB, MA, and SU (Cases 3, 8. And 11, respectively). There is also the tendency to diversify. The large- and medium-scale traders diversify to earn extra income, and as an insurance against the

The women fish traders in Ibaka and their trade

ravages of the fish trade, while the small scale traders diversify as a survival strategy. This confirms the dual role of diversification strategies in livelihood systems (Niehof 2004).

5.5.2 Similarities across the three fish trade groups

The three fish trade groups have several characteristics in common. Each group has large-, medium-, and small-scale traders, operating at different levels, depending on the amount of working capital used. Despite their different interests and opportunities, they all face risks and constraints associated with seasonality, fire hazards, conflicts, poor socio-economic conditions, gender inequalities, lack of institutional support, and environmental degradation. They also share the potential benefits associated with their location if they successfully adapt to the conditions and adopt sustainable livelihood strategies. The lack of infrastructural and technological facilities for fish handling, preservation, processing and storage poses a very difficult problem for the fish traders, yet the solution – investment in ice or cold storage, efficient processing and storage facilities – is beyond their means.

The mode of recruitment into the trade and learning the trade is similar among the three fish trade groups. Most of the women (73 percent) entered the fish trade at an early age as unpaid assistants to their mothers, after being withdrawn from primary or secondary school, which served as an apprenticeship period for them. They therefore had acquired special skills required for the fish trade and garnered enough experience to start their own trade by the time they got married. Having all married young, with no opportunity to accumulate any earnings during the years of training, they all had to be assisted with a loan or grant from their mothers, aunts, friends or clients to start their own trade.

Most women in the trade groups have a family member, mostly a child, involved in the fish trade, even though they are very particular about educating their children so they would not have to take the fish trade as a profession. Husbands do not offer any assistance to their wives in their fish trade, except perhaps giving them fish on credit occasionally, during periods of glut, to be paid for after sales. Some of traders whose husbands are fishermen benefit from the regular supply of fish, for which they pay cash, just like when buying from any other client.

The women also belong to professional associations and church organizations. The former provide them with professional support, while the latter offers moral support and helps in the sourcing for and development of social capital. Every trade group has members who belong to an *osusu* group. In the absence of formal financial services, all members of all the trade groups interviewed complained of insufficient working capital. This explains the proliferation of *osusu* groups in the community as an informal sources of loans for the women fish traders. More elderly, experienced, and large-scale traders obtained their working capital from more than one source, such as *osusu* group, savings, relations, government and money lenders.

In all the groups income earned from the fish trade is used for the household's upkeep, healthcare, education of the children, and feeding the family. Husbands as a rule do not contribute to the maintenance of the household. They simply provide accommodation for the family and carry on with his business without any interference with their wives' incomes. The non-pooling culture ensures that each person disburses his or her money without any

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interference from the other, enabling the high income earners among the women to be able to educate their children, acquire assets, and diversify into other high earning businesses. This engenders a high self-esteem that confers agency and autonomy.

5.5.3 Differences between the three fish trade groups

Despite operating in the same community, with similar conditions and constraints, significant differences do exist between the characteristics of the fish trade groups. There is a significant difference in the educational status of the members in the three groups because the big fish group seems to have more educated members than the other groups. This influences their ability to obtain loans from formal sources and their easy adoption of mobile communications technology that they use in enhancing their marketing strategies. Crayfish traders seem to be a bit more educated than the *bonga* traders, who are the least literate of the three groups. The ability to source for loans and government assistance translates to higher-level working capital and, therefore, a higher scale of operation resulting in higher incomes. Possession of boats and equipment obtained as loans or bought at subsidized rates from the government is a means of diversification. They are leased out by the big fish traders to earn extra income, which explains the higher wealth status of the big fish traders.

The time allocated for economic activities between the three fish trade groups differs because of the differences in the marketing chain of each species of fish. For example *bonga* is obtained through the fish mammy or fisherman's wife, processed by the *bonga* traders before sale at the market while the big fish are sold fresh as soon as they are landed, and crayfish are bought in the smoked form from the fishermen and taken to the market for sale. This explains why *bonga* traders spend most hours on economic activities, followed by the crayfish traders, with big fish traders spending the shortest time.

The sources of fish supply and the products supplied also differ between the groups. While *bonga* traders source fresh *bonga* from the fish mammies, who act as middlemen, smoke it and sell it, the big fish group obtain fresh fish from fishermen and sell it fresh, and the crayfish group collect their fish directly from the fishermen already smoked. The big fish and crayfish traders thus need to develop and maintain strong ties with fishermen who they can depend on to supply them fish, while the *bonga* traders develop strong ties with fish mammies or fishermen's wives for their supply.

Preservation problems are most acute for big fish traders, who have to maintain the fresh fish at an optimum quality to fetch a good price. *Bonga* traders have fewer problems with preserving the fresh *bonga* because it is smoked before the quality deteriorates. A problem could arise with maintaining the shelf life of the smoked *bonga*, but this is circumvented by selling the smoked fish as soon as it is ready. This also ensures a high turnover and higher incomes during the peak season. The crayfish traders have the least worries about preservation because they buy products that are already smoked, and testimonies of a shelf life of more than three months have been obtained for well-smoked crayfish, even though the traders cannot afford to store for such periods because of lack of working capital.

Finally, the interesting phenomenon of *matronage* is exhibited in the *bonga* and big fish trade, but is not operative in the crayfish fishery. There is also a marked difference between

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their modes of operation where it exists. In the *bonga* fishery, fish mammies are the matrons, and act as agents and middlemen between the fishermen who own the boats, and the wholesalers. They supply the fishermen some of the equipments and inputs, fuel, food and other supplies for their fishing trips on loan, in exchange for the sole right to purchase the fish landed. The big fish matron on the other hand, is a boat owner, and actually hires the fishermen to work for her, with the exclusive right to buy all the fish landed by the boat at an agreed rate until all the money advanced to the fishermen to take care of their families during the subsistence of the contract, is recovered.

5.5.4 Conclusion

The women fish traders were observed to belong to three different trade groups in Ibaka: those selling *bonga*, big fish, and crayfish. Within these three trade groups, depending on the amount of working capital used, three different categories of traders were identified: small-, medium-, and large-scale traders. They all belonged to male-headed, *de facto* female headed (with absentee husbands), or *de jure* female-headed households. Their marital status and their husbands' occupations did not seem to affect the species of fish sold by the women, neither did the sex of the household head.

Among the fish species landed and traded on by women in Ibaka, the *bonga* (*Ethmalosa fimbriata*) is the most valuable. It provides livelihoods for fish mammies and over 70 percent of the fishermen, fish processors, wholesalers and the retailers. The firewood sellers, barrow boys, owners of boreholes and shallow wells, vendors of food, fishing inputs and equipment, petty traders and patent medicine vendors are also part of the economy generated by *bonga* fishery. This pelagic species, landed in large quantities in Ibaka and its environs reaches a large segment of the rural population and the urban poor who are the main target group for nutritional improvement within the national food security policy of Nigeria. It is utilized mostly in the smoke and dried form. However, the smoking techniques vary and differ in convenience, efficiency and costs, which calls for the improvement of the less efficient techniques being used currently. There is thus the need for the adoption of suitable processing and smoking technology and the provision of a better working environment. The improved *chorkor* oven from The Gambia for *bonga* smoking would be an appropriate technology. The big fish and crayfish trades, even though also important to the economy of Ibaka, do not engage quite as many fishermen, women fish traders, input suppliers, children and other stakeholders as the *bonga* trade. The fish mammies are not involved here, and the processors of the crayfish are actually offshore, in temporary fishing communities where the fresh crayfish are landed.

The fishery is affected by seasonality and during the peak season there is a frenzy of activities in Ibaka, all related to fishery. There are also women in Ibaka who are not directly involved in fish trade but in other kinds of fishery-related economic activities. The economic activities and services offered by these women supporting the thriving fishery business in Ibaka include supplying essential commodities obtained from the hinterland, such as food, drinks, clothes, fuel and medication to fish traders, fishermen, input suppliers, and other members of the community. Other goods supplied are cosmetics, clothes, frozen fish bought illegally from

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poachers at sea, while services offered include fashion design, hair-dressing, restaurants (*bukka*), drinking parlours and sex.

The women fish traders all come from patriarchal families where female children do not inherit their father's property and they are mostly involved in polygamous marriages, which engenders matrifocality. Therefore, they strive to earn their own income, to take care of their households maintain and educate their children. Earning an independent income without supportive structures and sufficient resources is not easy. All kinds of challenges have to be overcome. Thus, a succession of fish traders keep struggling at the fish trade, sometimes without any appreciable success. This is because most of the poor women fish traders aggregate in the *bonga* fishery. Some of the medium- and large-scale fish traders manage to succeed to adapt to the constraints. This demonstrates that trading in fish can be a sustainable livelihood strategy in Ibaka, given technological and institutional support and putting in place mechanisms that enable overcoming the constraints. There are many similarities and some differences between the three fish trade groups. The most important similarities include the gendered nature of the fish trade, the mode of recruitment into the trade, and the fact that all the women fish traders demonstrated a high level of agency and autonomy. Differences were observed with regard to age, educational status, and time allocation for economic activities.

CHAPTER 6

Fish production, processing and marketing in Ibaka

In this chapter information about fish production, processing and marketing in Ibaka are given. The fish market, its characteristic features, structure, functioning, and mode of operation are discussed. Finally, crucial issues about women and markets, social capital, gender and the fish trade, as well as issues of gender and marriage in relation to the fish trade are discussed.

6.1 Fish Production

Fish production is a gendered activity in Ibaka because only men can fish. It is even taboo for women to enter some *bonga* boats because it is believed it will bring bad luck. Even though several fish species are landed by fishermen in Ibaka, those that are of economic importance and sustaining the fish trade are the *bonga*, some big fish species such as croakers, catfish and barracuda, and the crayfish (See Chapter 2). In terms of the fishing intensity, over sixty five percent of the boats in Ibaka fish for *bonga*. The equipment used are mainly dugout canoes with planked superstructures, powered by 25 hp or 40 hp two-stroke petrol outboard engines, and ring nets. Some boats are up to 20 m with an average crew size of 14 (Jallow 1994). Fishing is done by day and without ice, which affects the quality of fish landed at the beach and puts the fish traders in a precarious position of having to maintain the fish quality between the beach and the market. There is no handling of the fish between the fishing ground and the landing site. The fish is sold directly to the fish mammy at the beach, and she in turn sells it to the wholesalers who smoke the fish for sale to retailers, either at their homes or at the Ibaka market. The catch is generally unloaded in plastic basins and dumped in mounts on the beach where the bargaining between the fish mammy and the wholesalers take place. Once the sale is concluded the *bonga* is transported to the different houses of the traders by “barrow boys” (boys below eighteen who have either dropped out of or never attended school and consider the wheel barrow business more lucrative than attending school), where the fish is cleaned and washed before the smoking process. *Bonga* in its smoked form is the preferred and most popular product in Nigeria as reported by Jallow (1994). Smoking actually turns out to be the best way of preserving the catch, especially in the more humid areas of West Africa, where Nigeria is located.

Fishing for big fish and crayfish on the other hand requires less fishing effort than *bonga* fishing. The boats are smaller and have three to five crew members, though outboard engines are also used to shorten the journey between the fishing grounds and the landing site. The big fish fishermen use hook and line with baits as well as spears to catch the big fish while the crayfish fishermen use dragnets. Crayfish caught are smoked by the fishermen’s wives, packed in bags and moved to Ibaka by the fishermen themselves, for sale to their wholesale

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customers at Ibaka beach twice a week. The wholesalers then transport them to the Ibaka market, about one kilometer from the beach. Big fish is landed right on Ibaka beach and sold directly to the wholesalers who have a common shed at the beach where their organization operates an office, complete with weighing scales and seats. Fresh big fish is sold in kilograms by the fishermen. After landing, all the fish are weighed to determine the total cost of the fish landed by each boat. The wholesalers then buy the fish from their clients and sell to their customers, the retailers who come from the cities to wait for the fresh fish. The price per kilogram of fish depends mainly on the season, apart from the cost of inputs such as petrol, at the time of the fishing trip.

6.2 Seasonal calendar of fish production

The different fish species caught by the fishermen and the quantities landed often depend on the type of gear used and the time of the year. The fish trade is thus affected by seasonality as shown in Table 6.1

Table 6.1: Seasonal Calendar for Fish Production in Ibaka

Month	Season	Fish Species Sold	Remarks
January	Peak season for all fish: <i>ekpai</i> , <i>ibat</i> , big fish and crayfish	<i>Sardinella maderensis</i> , <i>Ethmalosa fimbriata</i> , big fish and crayfish	Dry season
February	Same as January	<i>Sardinella maderensis</i>	Dry season
March	Peak period for big fish, crayfish, Low catch for <i>bonga</i>	Croakers, barracuda, shiny nose, <i>bonga</i> and crayfish	End of dry season
April	Low season for all species	Big fish, crayfish & <i>bonga</i>	Rainy season
May	Low season for all species	<i>Bonga</i> , big fish & crayfish	Rainy season
June	Low season for all species	<i>Bonga</i> , big fish & crayfish	Rainy season
July	Lean Season for all fish spp.	Sharks	Rough Seas
August	Lean season for all fish spp.	Sharks	Rough seas
September	Beginning of <i>bonga</i> season; Good season for big fish and crayfish	<i>Bonga</i> , big fish and crayfish	End of rainy season
October	Low season for <i>bonga</i> , Good season for crayfish & big fish.	<i>Bonga</i> , big fish and crayfish	Dry season
November	Peak period for <i>ekpai</i> , <i>ibat</i> , big fish and crayfish	<i>Sardinella eba</i> , big fish	Dry season
December	Peak period for <i>ekpai</i>	<i>Sardinella eba</i>	Dry season

Source: Survey, 2007-2008, FGDs and Interviews with Fishermen and Fish Traders

Fish species landed include the pelagic species - *bonga* (*Ethmalosa fimbriata*) and sardines (*Sardinella* species), the “big fish” (croakers (*Pseudolithus* species), barracuda (*Sphyraena barracuda*), shiny nose (*Galoides* species), sharks (*Carcharinus* species), catfish (*Arius* species), threadfins (*Pentanemus* species) and red snapper (*Lutjanus* species), and crayfish (*Nematopalaemon hastatus*). Two distinct seasons, the peak and lean seasons, with variations within and between seasons were identified. The peak season which lasts from around October

Fish production, processing and marketing in Ibaka

till March is characterized by landings of large quantities of most fish species endemic to the area, especially the *bonga*, croakers, catfish and crayfish while the lean season which lasts from April to September has characteristic low fish landings, especially of *bonga* and crayfish. Different species of big fish are landed in sufficient quantities during the months between the peak and lean seasons so incomes for the big fish is fairly regular though significantly lower during the lean season. However, during July and August, when the sea is at its most stormy and turbulent, almost no fishing takes place. Fish supply is at its minimum and prices of the products are at their highest. Fishermen normally use this period to mend their nets, procure new equipment and accessories, preparing for the next peak season.

6.3 Bonga fishermen and fish mummies

In the *bonga* fisheries men fish and women process and sell. The job of the *bonga* fishermen thus terminates at the beach after handing over the catch to their “fish mummies” or wives who act as agents. These are rich women who have investments in the fishing unit either through the loan of the boat, fishing equipment or working capital, which entitles her to the catches until her loan is defrayed. The process of handing over the fish landed depends on the verbal agreements made between the fishermen or boat owners and the fish mummies or wives. Dealership is well organised at the beach because only the fish mammy or the fisherman’s wife has the exclusive right to take delivery of the fish during landing. Fish mummies acquire their status in various ways. Most fishermen operate at near subsistence level with income barely enough for immediate family needs. Operational expenses like input replacement, wages to assistants or acquisition of improved fishing inputs are met by credits supplied by the fish mummies or the informal market. The fish mummies are recognised in the *bonga* marketing channel as the informal creditors.

Also, for a fisherman who requires urgent replacement of input, occasioned by unforeseen hazards at sea (such as storm or loss of trawl nets from piracy or commercial fleets), or damage to craft and engine ashore by storm, institutional credit is just not available. The usual practice for fishermen is to approach wealthy fish mummies for assistance to provide them with cash or inputs on agreed terms and conditions. The entire catch for the season would be sold at a uniform, pre-determined price until the loan and interest are repaid. Even fish for his daily meals is under rigid check by the sole benefactor. Fish mummies are very important in the transportation, distribution and marketing of fish because they constitute over ninety percent of *bonga* distributors. There are no agents like fish mummies in the distribution of the big fish and crayfish species.

6.4 Fish processing

As mentioned in Chapter 5, all the *bonga* landed in Ibaka is processed by the women before being sold because unlike in many other communities in West Africa, most Nigerians eat *bonga* in the smoked form only. Only about 10 percent of the big fish are smoked, and this happens mostly when there is a glut, and the fish bought cannot be disposed of quickly enough.

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Most of the crayfish is sold to fish traders at the beach already smoked and bagged, so the women do not handle the smoking. Professional processors smoke it in fishing communities across the river from Ibaka, where it is landed.

6.4.1 Preservation of fish through the smoking process

All the *bonga*, sardines and crayfish are smoked while most of the croakers, catfishes and barracuda among the big fish are sold fresh. However, the crayfish arrive at Ibaka beach from other fishing communities on the Mbo River already smoked and packed in bags. The women traders in crayfish are therefore not the ones who smoke it because the smoking is arranged by the fishermen or their wives in the semi-permanent settlements on the river, some thirty minutes to one hour by boat from Ibaka. The smoking process is basically the same for the three groups (see Figure 6.1). The crayfish are spread evenly on mats, placed on top of wire gauze while the big fish are bent on sticks before smoking. The big fish, when smoked are however gutted and washed with well or borehole water while it is not possible to gut all the *bonga* and the tiny crayfish so they are washed and smoked whole. The smoking process for *bonga* is more engaging and interesting, and the smoking paraphernalia vary.

In Nigeria, fish is consumed fresh, smoked, dried, cooked, salted and dried. People's location, food habits, purchasing power, and infrastructural facilities influence the type of products consumed in particular areas. The infrastructural challenges in Ibaka make smoking the most efficient and effective way of preserving *bonga* for wider distribution, as it has been reported to have a shelf life of up to six months if well smoked (Jallow 1994).

The fish smoking process preserves the fish through a combination of three processes:

1. Extracting the moisture by the heat generated by the fire dries the fish, inhibiting most spoilage organisms
2. Preserving the fish through the smoke generated from the burning wood as the smoke contains a large number of compounds such as phenols that can kill bacteria which may cause spoilage.
3. Cooking the fish flesh at a high temperature in order to kill bacteria and destroy harmful enzymes.

The long shelf life of the smoked *bonga* has been reported to be due more to the cooking and drying than to the effect of the phenols from the smoke (Jallow 1994).

Smoking *bonga* in Ibaka

In Nigeria, local conditions and availability of materials dictate the designs and types of smoking equipment and processes. In Ibaka the ovens range from the traditional open *banda*, the covered *banda*, the *chorkor*, to the modified *chorkor* ovens, often located mainly in the women's kitchens. Due to space limitations and lack of money very few smoking facilities are located outside the living quarters, and these are basically open sheds built with sticks, thatch and palm leaves. However, despite the differences in design and materials used, the raw material is fresh, ungutted, unscaled whole *bonga* and the smoking process follows the same

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procedure of cooking the raw fish over a high fire and thereafter drying it over a long period over a low fire.

Smoking in an open *banda*

The open *banda* is very common in Ibaka. It is a smoking oven used in most West African countries (Jallow 1994), and is usually constructed using chain-link wire fencing which is supported from the ground by a framework of mangrove or other available wooden forked poles. Cross pieces are placed across strong wooden or metal bars to support the wire mesh and the fish. The metal bars are more resistant to fire but are a health hazard because it can burn if mistakenly touched during the smoking process. The fish are stacked in rows, side by side on the wire mesh in several layers upside down, or hung across the *banda* on specially prepared sticks, passed through their gills. The ovens are strongly re-enforced because smokers climb on top of them to stack and turn the fish. The fire is lit beneath the fish once the stacking is complete and red mangrove (*Rhizophora racemosa*) wood is mostly used in the smoking. Control of the fire often depends on the experience of the smoker but there have been incidents of the *banda* poles catching fire and burning the fish, and sometimes the house and the whole settlement, if not stopped in time. Only female household members are involved in the gutting and cleaning of the fish, including young, under-aged girls. During the peak season when large quantities of fresh fish are landed, medium and large scale traders who can afford it hire professional women processors from the community who facilitate the cleaning and smoking processes to avoid spoilage. The water used in the households for fish processing at Ibaka is purchased from commercial wells and boreholes, while the firewood is bought from male wood sellers who harvest them from nearby mangrove forests.

The standard drying time for the hard dry *bonga* produced in Ibaka is about three days or five smoking sessions of about two hours per session, for long storage. It is normally lightly re-smoked when necessary during storage to further extend its shelf life. Fuelwood consumption of the open *banda* is very inefficient because a lot of heat is lost through the openings between the wooden poles supporting the structure, and the wind effect is uncontrollable. The smoker's choice of wood depends on the availability and cost of the firewood and even though mangrove is the norm in Nigeria, its price is going up because of deforestation and oil pollution. The traders have thus devised a new method of smoking, starting the smoking process with a different, cheaper species of wood and finishing the slow smoking process using mangrove wood. We believe however that over time, the increased vigilance of forestry authorities and the increasing emphasis on the protection of the environment by government will make it imperative to find a more efficient way of constructing the *banda*. Wastage of fuel wood, frequent fire incidents, eye, nose and bronchial problems as well as back ache experienced by the smokers make the open *banda* a health hazard for the women as well as an environmental hazard for the community.

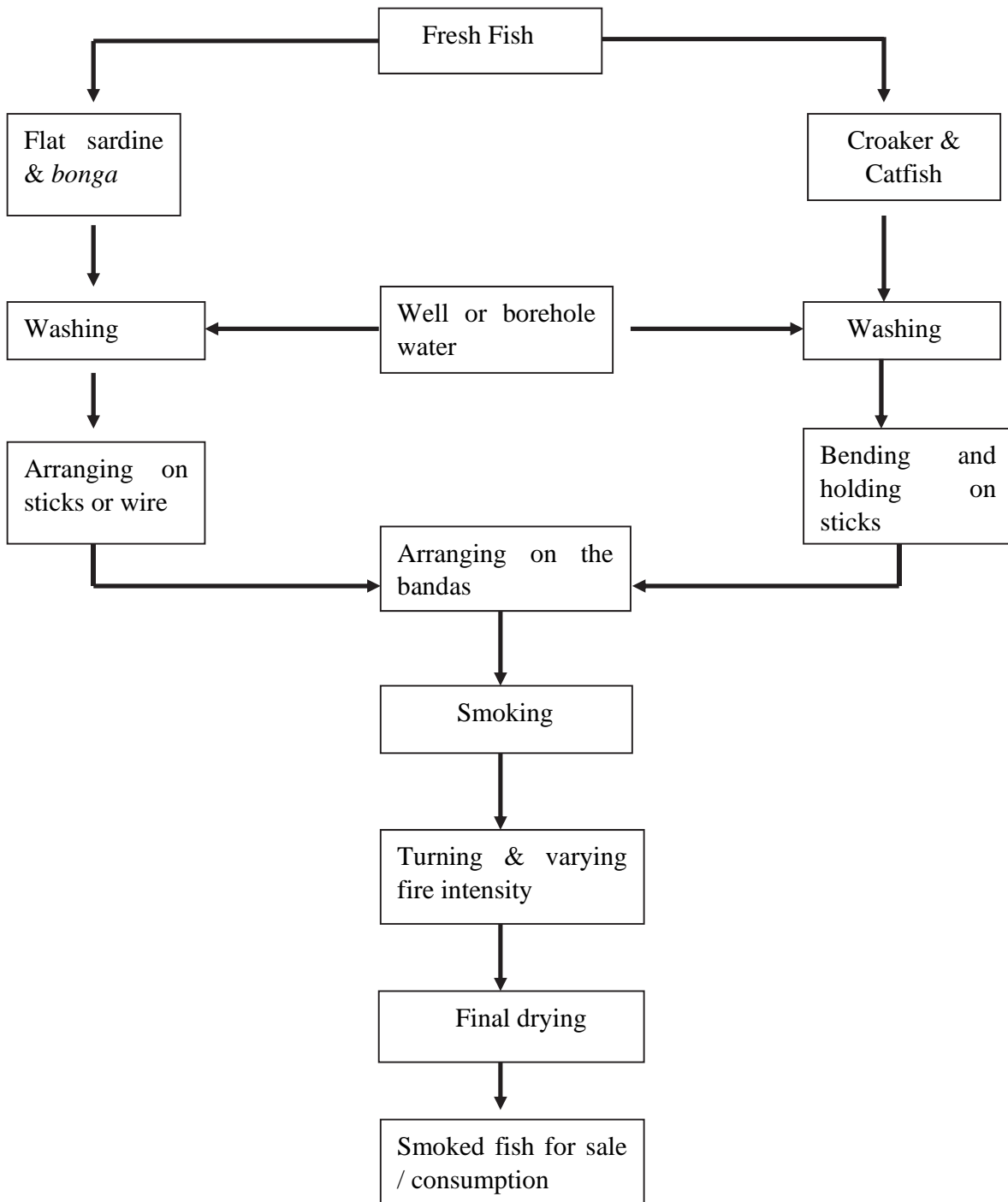
Smoking in a Chorkor oven

In order to reduce fuelwood consumption and create a smoke-free, healthy environment for the processors, appropriate technology which can contribute to an improved traditional fish

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smoking method is required. This will need the closing of all the open spaces in the *banda* and creating a smoking chamber with an opening in front only where the firewood can be fed, and the installation of a fixed grill or wire-mesh platform for stacking large quantities of *bonga* for smoke-drying. These will reduce heat loss and conserve energy for the drying process.

Figure 6.1: Flow diagram for processing of *bonga* / sardine, croaker and catfish



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The *Chorkor* oven was adapted from the traditional open *banda* and cylindrical oven concepts through an FAO project in *Chorkor* village in Ghana. It has been proven to be more efficient in terms of cost and energy utilization than the other designs used in West Africa (Jallow 1994). It can be constructed with laterite, cement or red brick walls. The *Chorkor* ovens used in Ibaka by the women fish traders were constructed with laterite. The frame supports up to fifteen trays stacked with fish, which then forms a chimney which if covered at the top, retains the heat and smoke, facilitating the smoking process. The oven is cheap because local materials are used, and can be durable if sheltered. It produces a high quality and uniform product. The women testify that it reduces fuelwood consumption, which is a major concern, and health problems (eye, nose and bronchial problems) associated with the traditional open *bandas*. However, the limitation of the traditional *Chorkor* oven is that the standard tray is rather small and so cannot handle large quantities of *bonga*, hence the need for an improved *Chorkor* oven as introduced in the Gambia and copied in Senegal (Jallow 1994).

6.5 The fish value chain

A value chain includes all the activities that are undertaken in transforming raw materials into a product that is sold and consumed (Kotler 2000; Vermeulen et al. 2008). These include the direct functions of primary production, collection, processing, wholesaling and retailing, as well as the support functions, such as input supply, financial services, transport, packaging and advertising. The terms “value chain” and “supply chain” are often used interchangeably. In this thesis we use the term value chain to reflect the understanding that value is added at each point in the chain. In modern markets careful management of the entire value or supply chain is critical to ensure quality and safety and to maximise efficiency. The value chain for *bonga* in Ibaka is the longest since it has to be processed by the fish traders themselves before being sold to the retailer. The big fish is sold fresh, straight from the boat without any value added, while the crayfish is already processed before being brought to the beach to be sold to the fish trader. The trader buys and takes it to the Ibaka market for sale to her customers who come from the cities to purchase them. This makes the crayfish trade more treacherous than others because you need the skill to be able to identify a full, sound bag of crayfish for survival in the trade.

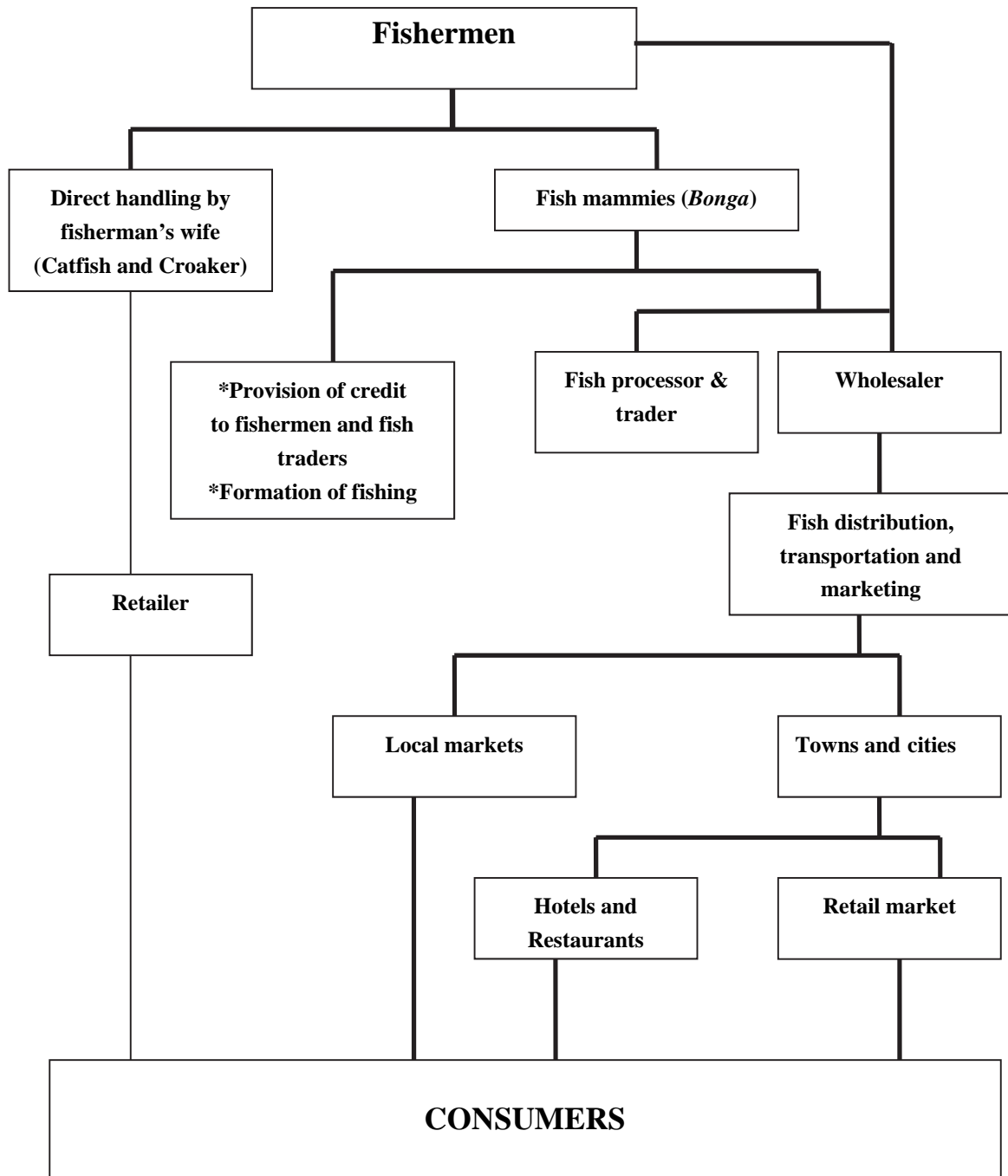
6.5.1 Trading in *bonga*

The fish marketing structure for *bonga* is shown in Figure 6.2. Stiff competition exists among the fish mammies for control of sizable portions of supplies to the market. They position themselves between the fishermen on the one hand and the wholesaler, retailer and consumer on the other, thus enabling the flow of the products from source to consumers. Only registered fish mongers (wholesalers) can buy fresh *bonga* at the beach and these are bought in basins of about 20kg from the mammies at the beach, transported to the houses using “barrow boys”, processed and sold to retailers who come from cities like Uyo, Port Harcourt, Onitsha, Warri, Lagos and Abuja. Processed fish is sold either at Ibaka market on market days and in their

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homes during the non-market days. Similar marketing arrangements have been reported in other *bonga* smoking areas in the Niger Delta, such as Iko, Uta Ewa, and Okoroete, where big city consumers depend on scattered small processing centres for their fish supply.

Figure 6.2: Fish Marketing Activity Chart



6.5.2 Trading in big fish and crayfish

The big fish and crayfish marketing systems are different and straightforward. About 80 per cent of the big fish caught is sold fresh at the beach and the rest is smoked for sale at the market or to customers at home. The fishermen transfer all the fish caught after a fishing trip from the boat to the shed, weigh them and calculate the total cost. The fish is sold at previously agreed prices directly to his “Madam” – the wholesaler/boat owner who hired him from the Cameroons or the owner of the boat but at higher prices to his other regular customers. Two categories of women wait for big fish at the beach, the wholesalers who buy directly from the boats and the retailers who come from different towns to buy from the wholesalers. The latter carry ice boxes and coolers to ensure the preservation of the fish to their destinations. During the peak season unsold fish is either transported to the cold room at Oron, about 45 kilometers away by the wholesalers or stored in freezer boxes with ice while arranging for immediate sale through the use of their mobile telephones to contact members of their wide network of customers or through call centres established by young entrepreneurs in Ibaka. Crayfish are sold in bags to the women at Ibaka beach by fishermen who transport them from semi-permanent communities from across the Mbo River after smoking. The wholesalers then convey them to Ibaka market for sale to the retailers from the cities. Entry into the fish trade attracts some ceremony as explained in Chapter 5 by Mme Ok, a medium scale big fish trader.

6.6 The nature of the fish trade in Ibaka

6.6.1 Ibaka fish market

The fish market in Ibaka operates just as the ones described by Overa (1993) and Odotei (1991) for fishing communities in Ghana and the transaction system is both in cash and credit. It does not conform to the conventional description for urban markets which may be characterized by barter, auctions or futures markets obtained for certain products. However, the marketing system does not respond to the necessity of having to dispose of the fish within the shortest possible time because of the short shelf life of the fresh product. There is no electricity and therefore no cold storage facility for fish preservation and electronic communications to facilitate the speed of transactions and the delivery of the product are also absent. The traders therefore operate in a precarious situation regarding the maintenance of fish quality and the information asymmetries within the market. Even though marketing systems often evolve over time, adjusting dynamically to market signals about consumer needs, this does not apply for the fish market at Ibaka because there is actually no real line of communication between the women fish traders and the consumers.

The fish market can also be said to operate in a similar manner as the food markets described in West Africa by Clark (1994) and Van Tilburg (1992) but with a few variations occasioned by the location of the producers and marketers. The actors include the fishermen, the boat owners, the fish mummies, traders, the barrow boys, processors, and transporters. The marketing functions carried out by the traders are exchange, physical, and facilitating functions

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(Kohls and Uhl, 2001), while the marketing institutions operating in the market are the assembly markets and wholesale markets only. There are no auctions and market information services. Exchange functions include negotiating, buying and selling, and arbitrage, physical functions include transport (place utility), storage (time utility) and processing (form utility), while the only facilitating functions carried out in the market are informal financial services, like credit by fish mummies who provide money in cash or kind to fishermen and fish traders.

6.6.2 The market as a coordinating mechanism

Exchange leads to welfare improvements for actors, while calling for coordination of supply and demand of respective commodities and factors. The fish market in Ibaka operates through incomplete contract transactions, where it is impossible to reach an agreement in advance about all possible events that could affect the exchange (Nazneen *et al.* 2007). These include relational contracts, where relationships exist between parties which can be typified as relation-based, informal relationships where the parties concerned share certain risks and benefits, and function through a network of clients (Knocke and Kuklinski 1991). With incomplete contracts, the traders participate in a social system that involves many other actors, who are reference points in the trader's decisions, the position of every individual actor in the social system is relevant, and coordination arises from mutual control. They operate on concepts of trust and information.

The transaction cost determines the profit maximisation potential of the coordinating mechanism for individual transactions. Besides the efficiency (costs), effectiveness (goal oriented), and acceptability, other criteria can also determine optimal coordinating mechanism. The adoption of an optimal, more efficient coordination mechanism can be possible through for example, improved communication system which would reduce transaction costs, and mechanisms can only be optimal given the constraints that the actors are facing, and can therefore be welfare-improving if the constraints can possibly be removed (Nazneen *et al.* 2007). In the absence of infrastructure, information asymmetries, and credit systems, replacing the current coordinating mechanism in Ibaka would prove impossible for the women fish traders. The choice of a coordinating mechanism in Ibaka is thus slim, and inefficiency occurs because the market and informal relational contracts are the only coordinating mechanisms available in the institutional environment. If markets do not function well there is loss in welfare. The solution therefore lies in removing factors that cause market imperfections which would provide the opportunity for adopting alternative coordination mechanisms.

6.6.3 Transaction costs

Transaction costs are costs connected with the realisation of transactions, in Ibaka including costs of searching for information on prices or quality of goods, transportation costs, processing costs, costs of storage, negotiation costs (time and facilities) specification costs (what demands the transferred goods must fulfil), inspection costs (ensuring the desired specifications), and arbitration costs (representation). Time inconsistency, among other issues, also leads to high transaction costs. This involves the alteration of the 'rules of the game' by

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the policy-setting party (e.g. a fisherman, client or customer), affecting credibility and resulting in behavioural change of the other party, which may prevent a transaction or lead to higher transaction costs. When a fisherman decides to land his fish sometimes in another beach just to defer payment of a loan taken from a fish mammy, or a retailer does not return money for fish taken on credit within the stipulated period, they have altered the 'rules of the game'. They thus mortgage their credibility and trustworthiness in the process and impose a higher cost on the transaction. The seemingly high transaction costs in Ibaka have favoured the proliferation of networks, while low transaction costs would have resulted in the appropriate coordination mechanism. However, according to Nazneen et al. (2007), the higher the frequency of a transaction, the lower the costs because economies of scale reduce the cost per transaction, particularly when special conditions have to be met. The women fish traders in Ibaka could thus benefit from lower transaction costs if they manage to maintain a high transaction frequency.

6.6.4 Risk

Risk implies uncertainty, which in Ibaka is constituted by information asymmetry, which involves the problem of taking the right decision without adequate information. Total lack of information, as in Ibaka, can also be classified as information asymmetry (Douma and Shreuder 2002), where one of the transacting parties (the agent, retailer) knows something the other party (the wholesaler) does not know. This leads to 'hidden information' or 'adverse selection', whereby, the retailer, for example, knows more before a transaction, and sees no reason to let the wholesaler have the additional information she has access to. Or on the other hand, where the wholesaler does the same thing to the fisherman, as happens often in Ibaka. The other form of information asymmetry which can be identified in Ibaka is 'hidden action' or 'moral hazard', whereby the fishermen sometimes land some of their catches in other beaches before getting to Ibaka, with smaller quantities, to claim there was no catch, thus depriving the fish mammy or their madam of sufficient fish for that day for their customers. The process of elimination or the reduction of information asymmetry and moral hazard also generates transaction costs, and thus influences the choice of coordinating mechanism (Douma and Shreuder 2002).

6.6.5 Market imperfection

According to the World Bank (2002) an efficient market needs to be supported by well-functioning land and credit markets as well as functional institutions (for example the judicial system). Markets are perfect when there are homogenous products, many buyers and sellers, market transparency, and freedom of entry and exit. The Ibaka fish market which does not possess any of these attributes can therefore be referred to as an imperfect market, even though as a rural market dealing with a single commodity, it does not quite fit into the modern urban market category, where the term can be more easily applied. According to the various types and degrees of market imperfections distinguished in literature by Nazneen et al. (2007) the

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Ibaka fish market possesses characteristics which qualify it severally as a missing market, thin market, incomplete market and interlocked market.

A missing market is an extreme case of market failure (Janvry et al. 1991), which generally is household-, but not commodity- or factor-specific, and arises from households' inability to participate in existing markets because of high transaction costs. In Ibaka there is a missing market for fish during the lean season, during which many of the women traders cannot cope with the high cost of fish due to lack of or insufficient working capital. They thus cannot buy the fish landed at the beach, and this limits their participation in the market. Because of the non-existence of, or poor development of the market for outputs, inputs, labour, credit and risk, the rural economy of Ibaka is subsistence-oriented, relying on family labour and using household assets as savings instruments.

The Ibaka fish market is a thin market because it lacks economy of scale, in the absence of sufficient demand and/or supply, caused by high transaction costs, weak information (on prices, technologies, and potential contracting partners) and a weak institutional framework which are considered to be the main contributing factors to creating thin markets. According to Kydd and Dorward (2004), economic actors with poor financial and social resources or political advantage face high costs in accessing information and enforcing property rights. These inhibit market development and access to existing markets, and result in a hampered economic and technological development. The low level of economic development such as exists in Ibaka, leads to thin markets and coordination failure, which may lead to increase in cost of coping with risk.

Ibaka fish market qualifies as an incomplete market because decisions on buying and selling are taken with incomplete or inadequate information. Inadequate information is in the form of information asymmetries, which together with the missing market imply imperfect credit markets and absence of an insurance market, resulting in increased cost of credit, making it more difficult to cope with risk (World Bank 2002).

Shallow markets have a high negative variation between household supply and effective prices (Sadoulet and de Janvry 1995). In Ibaka fishing community good fish landings during the peak season every year result in oversupply and low prices, while poor landings during the lean season lead to scarcity and high prices. Poor infrastructure, resulting in high transportation costs limits the supply of the fish to other regions during over-supply or purchasing from other regions during under-supply, resulting in lack of spatial arbitrage. A wide variation in prices in response to covariate shocks is therefore the result of the absence of proper market integration.

The numerous complicated credit relationships existing in Ibaka market, and in the fish value chain between the input and output markets, qualifies the fish market as an inter-locked market. In this situation, the fish mammy supplies the inputs and requires that the landings are sold to her at a fixed, pre-determined price, sometimes below the market price, excluding the cost of the inputs. The same fish mammies give fresh fish on credit to poor, desperate bonga traders who have no working capital and they process, sell and repay her on her own terms of credit. In a situation where there are no alternatives for obtaining credit like in Ibaka, monopolistic and opportunistic situations such as these arise. In addition, seasonality gives rise to income deficits for poor households, who have to find ways to balance their budgets or incomes throughout the year. They tend to resort to some sort of credit in the circumstance. For

formal credit they would require collateral, and where land markets are missing, as in Ibaka and Akwa Ibom State, land cannot serve as collateral (Nazneen et al. 2007).

6.6.6 Entry barriers and recruitment into the fish trade

Recruitment into the fish trade in Ibaka, just like in other West African countries, is mainly through kinship and marriage (Overa 2000). Possession of specific skills is the most important requirement for recruitment into the fish trading profession. Lack of skills can therefore constitute a serious barrier to entry into the fish trade. Other barriers include lack of working capital, lack of available networks, culture, location and ethnicity (Clark 1994; Overa 2000; Seligmann 2001).

Specific skills required in Ibaka as enumerated by the women fish traders themselves include general trading skills, particular methods of handling and judging quality of the fish, and the complicated bargaining conventions. Skills for social networking for the acquisition of social capital are required for profitability while starting up or growing an enterprise also requires a good knowledge of the relevant people at the business location, and the history of the interaction with individual suppliers and buyers. Non-trading skills such as languages, literacy, or numeracy are also important for a successful operation. All these skills must be acquired either through an informal socialization process or in the course of other relationships.

Skills imparted by formal education were found to be limitedly useful to the women fish traders in Ibaka. Written and spoken English and arithmetic are important mainly for traders of imported and manufactured goods, since they use invoices, receipts, and mails. Numeracy was a more important requirement for success in the fish trade. Another non-commercial skill the Ibaka traders need is the command of '*pidgin* English', the language used in the marketplace, because having a good grasp of the language is necessary for effective bargaining (Clark 1994). Knowledge of basic skills as opposed to commodity-specific skills is also very important, and in Ibaka, just as Clark (1994) reports in Ghana, most of the traders reported learning basic skills by themselves by the age of about nine or ten, through running errands and discussing with their friends. With the acquisition of basic skills, the children are put in a position to learn more specific and sophisticated skills. However, adults who did not grow up in the fishing communities sometimes arrange for training through an informal process in order to learn specific skills required to sell a particular species of fish. Learning through observation, asking questions and helping in small tasks without reward or remuneration is also common.

In Ibaka the women fish traders lack access to formal sources of finance due to the scarcity of finance, information asymmetry, high cost of credit, and lack of collateral. Illiteracy and lack of expertise to efficiently evaluate a project potential also constitute entry barriers to the fish trade, because they result in lack of, or insufficient working capital and high transaction costs (Kasekende 2001; van Tilburg 1992; Clark 1994; Moll et al. 2001; Schiffer and Waders 2001; Trulsson 2002). Studies conducted in other parts of Nigeria, Ghana, and Africa as a whole show that women entrepreneurs and small business owners encounter similar problems with raising working capital for their trade. They therefore obtain their initial capital from their family members and friends or use their own savings (Obeng 2007; Obeng and Anderson 2010).

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The women fish traders in Ibaka use networks of well established clients and customers, including kin and non-kin as valuable business assets, just as the goodwill of their mothers and extended families. In the absence of these, women cannot really start the fish trade business. Adequate commercial information, including knowledge of skills, locations, and persons is also required for starting the business. Regularly updated information about supply and demand conditions, price levels, and persons transacting with them, on which their continued operation depends, is important for an on-going business. Government policy can also constitute a barrier. In times of political instability and economic crises, information on current or planned government policies and actions are extremely valuable because the accuracy and timeliness of these kinds of information have an impact on the day-to-day accumulation and survival of the trade.

6.6.7 Social networking

There are a number of ways to approach the fish market in Ibaka but the social and network theory, which exemplifies that the relational context within which economic transactions take place is critical for their performance, relates more to the situation in Ibaka. It has been demonstrated that social relations provide permissible limits of behaviour that enhance flexibility, solidarity, mutuality and information sharing necessary to adapt to turbulent market environments (Cannon, Achrol and Gundlach 2000; Achrol and Kotler 1999). Consequently, organisations strive to develop intimate social relations with customers and suppliers in order to militate against exchange hazards (Kim 1999). Increasingly, social norms, such as trust, commitment and network ties have become vital resources and antecedents for economic performance as reflected by the sheer volume of relevant marketing literature (For example, Atuahene-Gima and Li 2002; Hewet and Bearden 2001; Rindfleisch and Moorman 2001; Wathne and Heide 2004). In addition, social relations militate against opportunism (Brown, Dev and Lee 2000; Achrol and Gundlach 1999), and enhance loyalty, shared values and respect (Brashear et al. 2003; Sirdesmukh, Singh and Sabol 2002), even though social relations can be vulnerable to opportunism (Wuyts and Geyskens 2005).

6.7 Crucial issues about markets and women

Women's participation in markets is determined in part by household structures, gender division of labour, marriage, residence and inheritance patterns. Households and markets interact dialectically as kinship dynamics, gender ideologies, and household practices and economies are transferred to the market. Meanwhile market practices and economic principles become integral to the reproduction of the household and the nature of the activities that take place within it (Seligmann 2001).

Women frequently enter the market as an extension of household tasks they perform as well as to make possible the economic survival of those households and, particularly, to secure the survival of their children. While women are often socialized to contribute the largest share of their labour to the household in order to ensure children's welfare, in many societies that work is not conceptualized as physical caretaking but rather as the economic maintenance

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of children. In their studies Alexander and Alexander (2001) in Indonesia and Clark (2001) in Ghana confirm that women enter the market place as “mothers” and assume in the circumstance that in ensuring the welfare of their children and sustaining the livelihood of their households the actions they must take are not restricted to the home only.

Women are able to join the trading occupation when it has low entry barriers and in order to counteract widespread unemployment, but their entry into trading when cultural values and gender ideologies do not support it creates enormous stress within households (Lessinger 2001). However, where there are no ideological constraints on women seeking personal incomes through commerce, women traders have become risk takers and cash earners. Indeed where trade is both an economic imperative and a cultural tradition in which generations of women have engaged, women are able to accumulate considerable capital for themselves, and have even moved into wholesaling (Alexander and Alexander 2001; Milgram 2001). Marketing activities among women are not unusual in societies where women are accepted as economically autonomous individuals.

There are many reasons for women to become traders, instead of pursuing more lucrative occupations. For one thing, competition from men for paid employment and illiteracy ensure men’s monopoly, and reduce women to trading, which requires little starting capital and low literacy levels. In Ibaka, the fish trade offers women flexibility and enables them to combine their household and work responsibilities. As traders some of them may already have rights and titles to certain types of fish trade (Seligmann 2001, Niehof 2007). In many countries women are forced to trade because of deteriorating economic conditions which affects the household’s survival. In countries where the Structural Adjustment Programmes were implemented men lost their jobs and the dire needs of the household took precedence over certain gender ideologies and cultural sanctions regarding women’s entry into the market place. Women thus took up the challenge (Babb 2001; Clark 2001; Lessinger 2001).

6.7.1 Social capital, gender and fish trade

Forms of social capital

In Nigeria, where more than 60 percent of the rural population is poor, social capital plays a crucial role in enhancing people’s livelihoods, coping with adversity, adapting to various constraints and averting vulnerability. Borrowing is an integral part of rural livelihood and credit is given on the basis of trust due to the absence of collateral. Power dynamics, among other factors, play hidden and important roles in these support mechanisms. Below, the different sources of social capital are discussed.

Kin

Kinship provides a major source of support. Relations from both the husband’s and fish trader’s families are equally important even though the case studies revealed that more support seemed to be obtained from the female relations more than the male. Thus mothers, sisters, aunties and sisters-in-law were the most important sources of support. The support seems to be reciprocal in that successful fish traders have built houses for their mothers in their permanent

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villages while some have bought land for their daughters, since they would take care of them in old age and would not inherit anything from their fathers.

It is customary for a woman's family to help her settle in, once she gets married, which is illustrated in the provision of working capital for starting the fish trade. Support of divorced, separated or deserted women and widows by brothers, parents and uncles is mandatory but because of the rising poverty profile of the communities, the obligation is not as binding as before. Also, women do not have inheritance rights both in their families of orientation and in their husbands' families, which makes them highly vulnerable and insecure. Kinship relations are very important for borrowing money, exchange of information, sourcing for working capital, inheritance of fish trade titles, adapting to constraints, averting risks and coping with adversity.

Neighbours

Due to a high incidence of migration many of the fish traders are not from Ibaka and therefore are not living near their relations. Also because of lack of space the indigenes build houses in new hamlets further from the beach and have to live with people who are not their kin. The survey data, life histories, and our personal observations reveal the crucial roles neighbours play in the support system. There is some divergence in the importance attached to kin versus neighbours with respect to support, which is determined by the ethnicity of the fish trader. Kin are more important to some while neighbours are more important to others, and this varies from one person to another depending on the relationship with the neighbours and with the kin group. Neighbours matter more where the relationship with the kin group is not cordial. People do try to maintain good relationships with their neighbours because of their religious and social obligations but occasionally disputes arise, which can complicate matters between neighbours. Most of the houses on the beach at Ibaka are not connected by any link road and people have to trespass on other people's property to get to their houses. Therefore, maintaining good relations with the neighbours becomes expedient. People frequently borrow some usable goods or small amounts of money from their neighbours.

Friends

The survey and life histories revealed that friends play an important role in Ibaka. They give both moral and monetary support in times of adversity (see Chapter 5). They are also important in providing information, credit and partnerships opportunities for starters in the fish trade. Friendships have also been described as useful for assuring regular supply of fish from fishermen by women fish traders in Ghana by Overa (1995, 2003b).

*Matron-client relationships*³

Matron-client relationships are very common and provide vital support mechanisms (Niehof 2007). In Ibaka, fish mammies support *bonga* fishermen with credit in return for sole ownership of the fish landed and loyalty in the regular supply of fish. They also support poor *bonga* fish traders without working capital through credit sales of fish and in return these become their regular sources of fish distribution during the peak season when there is glut, and

³ Niehof (2007) proposed to replace the concept of patron-client relationship, well documented in the literature, by matron-client relationship in the cases where the patrons are women, thus matrons.

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provide labour for the mammy when the need arises. The female big fish boat owners (matrons) maintain close relationships with the spear fishermen they hire from Cameroun and Equatorial Guinea (clients), who in turn depend on them for their livelihoods (Niehof 2007). Support is also provided in the form of moral and financial credit. However, provision of support depends on the trustworthiness of the client and the interest of the matron because whenever they feel the client is no longer trustworthy the support is withdrawn.

Church

Religion is a part of everyday life in Ibaka. Religious beliefs contribute not only to personal and psychological security but the churches also provide opportunities for networking and the cultivation of social capital. Through membership in church choirs, the women's fellowship and other church organizations, and participation in other church activities, contacts are made with other women and friendships are cultivated. Churches offer moral support and in some instances financial support to the women. They also offer a feeling of security, strength, self-worth and belonging. It has therefore become an important source of social capital in Ibaka (Koster 2008)

Mutual trust

This is a horizontal form of support where people support each other. It occurs between neighbours, friends, and among fellow fish traders. Currently in Ibaka, some of the starters at the fish trade with small working capital combine their operations on the basis of mutual trust until they have enough capital to trade on their own. The formation and operation of *osusu* groups, and other village based groups depend totally on mutual trust. Only people who can be trusted are admitted into these groups and anybody who defaults is generally treated as an outcast and is not allowed to join any other *osusu* in the community. Thus the poor prefer staying out rather than facing such humiliation and disgrace.

The credit transactions between the wholesalers and retailers of *bonga*, big fish and crayfish also operate on mutual trust because there is neither collateral given or taken nor any official documentation of the transactions. Even the credit facilities offered the fishermen by the fish mummies are also based on mutual trust.

Networking

The level of social networking of a fish trader is determined by the opportunities she has in coming in contact with other people, as well as on her personal qualities and characteristics. Access to information is very important for the fish trade through which the traders sustain their livelihoods but in Ibaka, as in most rural communities, it is who you know and not what you know that counts (Woolcock and Narayan 2000: 225). Networking is important for obtaining easier terms of credit from the money lenders, for getting fish on credit from fishermen, and for obtaining credit facilities from government and NGOs. It is also crucial for obtaining information and technical support from various government officials. Fish traders in Ibaka obtain their network partners through the women's groups in the numerous churches that they attend. Membership in *osusu* groups and other village-based groups also help in expanding a fish trader's network apart from their membership of the professional organizations.

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Norms and values

The cultural norms underpinning polygamy assume the ability of taking care of all the wives and children. However, fishermen have wives all over the different fishing communities they migrate to, looking for fish, and each wife is supposed to take care of herself and her children. Also the cultural norms of reciprocity that supported the optimal use of people's time and labour, and reduced transaction costs have been eroded and no more exist and these have led to higher transaction costs. During Christian religious celebrations like Christmas and Easter, rich households used to cook and distribute food to their poorer neighbours so that everybody had good food to eat and shared in the community spirit, but this does not exist anymore. Even the extended family system in Nigeria has been eroded to the extent that people do not feel bound to fulfill their responsibilities towards their extended family members like before.

Social solidarity

There are some women's clubs and social organizations in Ibaka. Different age groups of women belong in different clubs and these clubs provide moral and financial support for members when they have occasions like weddings, children's dedications, burial and other ceremonies (Like the club for the dead described by SG in Chapter 5). They make uniforms for themselves and use the uniform to distinguish themselves from the other clubs. At the end of every year they cook, eat and celebrate the year's end. In the 1990s the fish traders were assisted in forming groups some of which benefitted from the micro-credit scheme organized by the then Nigerian Agricultural and Cooperative Bank (NACB) for the artisanal marine fisheries sector. They stayed together while the project lasted and strived to repay their loans, but disintegrated barely one year after the end of the project in 1996.

Osusu groups

As explained in Chapter 3, *osusu* groups are a way for women to commit their households to a particular saving pattern (Anderson and Baland 2002). Women normally form their own *osusu* groups different from the men in Ibaka, mostly with women from the same fish trade group, or church. In these groups the disciplining body could be the trade group's executives or members of the executive committees of the women's fellowship associations in the churches where the groups are located. There are many other *osusu* groups, with membership cutting across different interest groups, professional and ethnic groups, as well as churches. These offer the fish traders the opportunity to save money in the absence of formal financial services, and to obtain credit at a relatively low interest rate, with more flexible conditions, and without needing collateral.

Women use the groups to accumulate savings for the household and to make money temporarily illiquid to their husbands. There is confidentiality of discussion and procedures are generalized, to protect members against theft or malfeasance, but also to ensure freedom of speech during the meetings, and to avoid formation of hidden alliances outside the group meetings. During the case studies, focus group discussions and in-depth interviews the following declarations were made by the women fish traders in Ibaka:

"Joining *osusu* is the only way for me to save some money. If I leave it at home I may spend it or lose it to fire, my husband, or thieves."

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"We have secret meetings in our group. For some members their husbands will take the money, and not provide them with food and basic goods. People quarrel a lot and pay penalty for talking outside about what happens here."

"We have only women in our group, that way we are freer, and can talk and laugh. Men always want to dominate everything. [...] They do not care about the welfare of their family, only about marrying new wives."

"You cannot trust anybody. If you leave money at home, your husband will take it."

As Krahnert and Schmidt (1994) point out, the participation of the women fish traders in groups such as the *osusus* creates a superior claim of the participant on resources that otherwise would have been absorbed by the 'sponge' of family needs.

6.7.2 Marriage and fish trade

Most of the households in rural Nigeria depend on the contributions of women for their maintenance and sustainability. Women thus carry the double burden of straddling both the economic and domestic domains. Issues of gender and marriage in relation to the fish trade are discussed in this section.

Results from the survey and the case studies show that most of the fish traders started following their mothers to the beach, and helping out in fish processing at home from about age eight to ten. Due to the inability of the parents to pay their school fees they dropped out after spending some years in the primary school. Others from very poor families actually never attended school and simply started at the beach much earlier. The apprenticeship period for the young girls in the fish trade thus starts in their early years, and continues till about age eighteen to twenty, when most of the girls in Ibaka get married. By this time she already knows the rudiments of the trade and she is assisted by her mother if possible, to start her own business so as to be able to maintain her household.

Marriage in Ibaka confers a high level of responsibility on the young women who apart from taking care of themselves, their husbands and relations, have to start their own businesses, in order to earn independent incomes. The bride price that is paid by the husband goes to the father and other male relatives. The mother gets some mandatory inconsequential articles such as wrappers, blouses and other mundane things while the men keep the money and other valuable items. This keeps both mother and daughter at a disadvantaged position because if the mother is poor, they will need to borrow money to enable the daughter start her fish trade in her husband's house. However, if she marries a fisherman, which many of them do, part of the problem is solved because then she can be obtaining fish on credit from him and pay cash after sales. In this case she will only be getting fish for food from the husband but most of her profit goes into providing food and other things for the family. It is only in rare cases that the husband gives the wife housekeeping money. This explains the perpetual lack of and the slow accumulation of working capital among the young fish traders and others who lack other sources of working capital. As a poor fish trader starting up with little or no capital, she cannot join an *osusu* group to raise her working capital because of her inability to pay the

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weekly or monthly contributions, since defaults attract either sanctions and/or expulsion from the group.

The young woman fish trader from a well-to-do background, or one who marries a non-poor husband fares better than her poor counterpart. The mother is able to give her working capital which she can use in buying fish from her husband, if he is a fisherman, or from other fishermen. The husband can also give her additional working capital to that from her mother to enable her start her own fish trade.

Divorce is not common in the fishing community, but wife abandonment is. Many fishermen in Ibaka marry up to three wives from different communities and these wives generally have up to three children each. Since they generally do not provide for their wives and children, each time they marry a new wife they more or less abandon the old one, because they cannot cope with the conflict that will arise from having two wives under the same roof. Also their matrimonial commitments become too much for them, so they end up abandoning some of the wives (see Cases 8 and 11 in Chapter 5). Cases of husband abandonment also exist. In this case the first wife of a fisherman, in the absence of regular attention from the husband who may be pre-occupied with younger wives, abandons the marriage in order to face her fish trade squarely and increase her income (see Cases 1 and 2 in Chapter 5).

6.8 Conclusion

This chapter reviews the marketing process for *bonga*, big fish and crayfish, highlighting the differences and similarities in the processes. The gendered nature of the activity in Ibaka is also discussed. Even though the fish species of economic importance which sustain the fish trade are the *bonga*, crayfish and selected big fish species such as the croakers, catfish, shiny nose, and barracuda, *bonga* fishery seems to contribute most to the economy of Ibaka and the sub-region. It employs over sixty five percent of the fishermen and fish traders. Fishing for big fish and crayfish do not require as much fishing effort as fishing for *bonga*. The handling process for *bonga* is also different because *bonga* and crayfish are smoked and sold at the market while the big fish are sold fresh at the beach.

Even though outboard engines are used to shorten the journey between the fishing grounds and the landing site, the problem of fish preservation while at sea persists for the three fish groups because the fishermen do not carry ice. This puts the fish traders under intense pressure of having to maintain the fish quality between the beach and the market. Smoking therefore becomes the best solution for *bonga* traders. The crayfish traders decide to buy only smoked crayfish while the big fish traders arrange to sell their fish fresh as soon as they are landed.

The fish mammy occupies a central position as the middle-man between the fishermen and the *bonga* traders while the crayfish and big fish traders deal directly with the fishermen. Fish mammies play a significant role in the *bonga* fishery in Ibaka because they assist both the fishermen and the young women fish traders whom they mentor as benefactors by offering them in-kind credit regularly, to enable them trade and earn some income. They are often supported until they gather enough working capital to operate on their own. The mammies therefore qualify to be called “matrons” in the *bonga* business because they act in the *bonga* marketing channel as the informal creditors, the major distributors and marketers of *bonga* at

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the beach. They constitute over ninety percent of fresh *bonga* distributors at the beach while the other ten percent is handled by the fishermen's wives.

Seasonality is a major cause of vulnerability in the fish production, processing and trading business in Ibaka. The two distinct seasons, the peak and lean seasons are characterized by the production of different quantities and prices of fish. During the peak season, large quantities of most fish species endemic to the area are landed and the fishermen and fish traders earn sufficiently large incomes from the business. The lean season on the other hand is characterized with low fish landings, especially of *bonga* and crayfish, and high prices. Even though the prices of fish are lower during the peak season, the large quantities of fish landed ensures high turnover and therefore, higher incomes. In the height of the lean season, fish prices could be so high at the beach that sometimes the women traders with low working capital go home empty handed, unable to buy fish. This therefore makes them highly vulnerable during this period. It is not that incomes earned during the peak season could not carry them through the lean season. One of the reasons for their high level of vulnerability is their inability to manage the incomes earned during the peak season, especially on the part of the fishermen.

While all the *bonga* is processed in Ibaka before being sold, over 80 percent of the big fish is sold fresh while the crayfish is smoked before being brought to the beach for sale. The *bonga* is smoked using ovens ranging from the open traditional *banda*, the covered *banda*, the *chorkor*, to the modified *chorkor* often located mainly in the women's kitchens. The smoking process involves extracting the moisture by the heat generated by the fire, which dries the fish, and cooking the fish flesh at a high temperature in order to kill bacteria and destroy harmful enzymes. The types of fish products consumed by people seem to be influenced by culture and their location. Thus whether fish is consumed fresh, smoked, cooked, salted and dried depend on people's location, food habits, purchasing power, and infrastructural facilities. The people in most of Southern Nigeria have always been known to prefer smoked *bonga* in their dishes.

The value chain for *bonga* is the longest, since it passes through the fish mammy before the women fish traders who then add some value through the smoking process before selling to the retailers. In comparison, the big fish value chain is the shortest since the fish is sold fresh, straight from the boat without any value addition. The value chain for crayfish is longer than that for the big fish because there is some value addition, but it is shorter than that of *bonga*, because no fish mammy is involved and the smoking is done by the fisherman or his wife.

The Ibaka fish market operates like most rural food markets in West Africa. With its characteristic lack of infrastructural facilities, lack of access to information and non-existent line of communication between the women fish traders and the consumers, the traders are literally operating without any supporting structures. The provision of an improved communication system, infrastructural facilities, credit systems and adequate information would therefore reduce the transaction costs and make for a better coordination mechanism in the market (Douma and Shreuder 2002).

The Ibaka fish market is a single commodity market and in my own opinion, does not quite fit into the category of either a perfect or imperfect market. It is not for all-comers. Participation is through kinship and marriage, and only women who possess specific skills, working capital, available networks and social capital, and belong in a certain culture, location

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and ethnicity can participate. It is also determined by household structures, gender division of labour, marriage, residence and inheritance patterns. However, in the absence of functional institutions and with several cultural barriers to contend with, the fish trade, which is often regarded as an extension of household tasks embarked upon to ensure the livelihood sustenance of the household, is carried out by the women fish traders using social networking and social capital, to facilitate their trading profession. Sources of social capital include kin, neighbours, friends, matron-client relationships, mutual trust, *osusu* groups, social clubs and associations, norms and values, churches, and networks.

Finally, marriage in Ibaka confers a high level of responsibility on young women though it keeps those whose mothers are poor at a disadvantaged position because they will need to borrow money to enable the daughter start her fish trade in her husband's house. However, for those who marry fishermen, part of the problem is solved because then she can obtain fish on credit from him and pay cash after sales. This situation explains the perpetual lack as well as the slow accumulation of working capital among the young fish traders. Those with rich mothers or husbands are however not affected because the mothers give them working capital to start the trade and the husbands also assist. The well-to-do and competent women build up their businesses and are established by the time the husband marries another wife or moves on while the poor women suffer from abandonment.

CHAPTER 7

Traders' performance in the economic and the domestic domains

7.1 Introduction

This chapter discusses the performance of the women fish traders in both the economic and domestic domains. Performance in this study is defined as the women's success at securing the livelihoods of their households through the fish trade, which is the major economic activity in Ibaka. An integrated approach, assessing their strategies in both domains, and how these interact with each other, is used. Success or failure at securing livelihoods has been shown to be influenced by personal characteristics such as age, education, marital status and number of children, as well as socio-economic factors such as years of experience, amount of working capital used, level of income, diversification, and social capital, among others (Chapters 5 and 6). In the economic domain, performance in the fish trade is discussed in terms of years of experience, skills acquired, the structure and sources of working capital, social capital, resource utilisation and innovation (Fitzgerald and Wynn.2004), income levels, assets ownership, and the ability to save. Performance in the domestic domain is analysed using variables such as the ability to educate children, the nature of housing, the type of cooking and lighting energy used, and access to water and health facilities. Factors influencing performance, the constraints faced, adaptation strategies, and the inter-relationship between the two domains are investigated. Also discussed are time allocation between the two domains, the relationship between income and type of housing, sources of energy for cooking and lighting, assets owned, educational status of children and the health status of the household. Finally, the chapter pays attention to the vulnerability of the women fish traders in Ibaka to HIV and AIDS.

In assessing the women's performance, the fish marketing system in Ibaka is conceptualized as one of social relationships or networks, an anthropological approach which regards the market as a social system with women as actors, forming a strategic link between producers and consumers (Alexander 1987).

7.2 Performance in the economic domain

7.2.1 Years of experience

As shown in Chapter 5, the present day fish traders started assisting their mothers, aunties or other female relations in the fish processing and trading business right from when they were about eight years old and continued until they were old enough to marry, at about age eighteen.

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Schooling was not an excuse because according to them, on returning from school, you had to join your mother or aunty at the beach or market after eating. The years spent assisting in the business count as years spent for on-the-job training and gaining experience. The free training offered during the period compensates for the unpaid labour provided during the whole process because the girls usually succeed in starting their own fish trading business as soon as they get married and can mobilize enough funds or goodwill to start. The procedure for recruitment into the trade and acquisition of experience is basically the same for all the trade groups. In Table 7.1, the big fish traders had the largest number of members with more than 15 years of experience (80%) followed by the *bonga* group (50%) while the crayfish group's members all had less than 15 years of experience.

Table 7.1: Years of experience by women fish traders in the three trade groups

Years of Experience	<i>Bonga</i>	%	Big Fish	%	Crayfish		Total	%
<15	20	50.00	6	20.00	30	100.00	56	56.0
15 to 30	19	47.50	16	53.33	0	0.00	35	22.0
> 30	1	2.50	8	26.67	0	0.00	9	18.0
Total	40	100.0	30	100.0	30	100.0	100	100.0

Source: Household Survey 2007, 2008

Table 7.2 shows significant differences (F value 66.61, $p < 0.05$) of the mean years of experience between the three groups. The highest value in the big fish group could probably be due to the fact that since all the fish traders start when they are very young, the big fish group with the oldest set of fish traders, automatically has fish traders with higher number of years of experience than the *bonga* group, whose members are in turn older than those in the crayfish group, which has the youngest members (see Table 5.4).

Table 7.2: Summary of the statistics of years of experience by the fish trade groups (N=100)

Fish trade group	Mean years (*)	F. value	df	Significance	Critical value	Remark
<i>Bonga</i>	11.22 ^b	66.61	2	0.000	0.05	Significant
Big fish	30.33 ^c					
Crayfish	0.13 ^a					

(*) The different superscripts indicate significant differences of mean years of experience between the trade groups.

One way ANOVA test; F value = 66.61, $df=2$, $p < 0.05$

The life histories in Chapter 5 also confirm the fact that the older women fish traders had more years of experience in the fish trade, and therefore, higher network connections and social capital, higher levels of trust from customers and clients, better access to resources, better

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opportunities at organizing more than one source of working capital, owned of assets and savings, and possessed better skills. These attributes led to better access to resources such as credit, better terms of trade, higher liquidity and profitability, which engendered good performance in the fish trade.

7.2.2 Skills

Apart from the location, years of experience and the possession of sufficient working capital, trading successfully requires considerable skills. General trading skills and others specific to the type of fish to be traded on are required of the new entrant into the trade in Ibaka. Particular methods of handling *bonga* and big fish, and of judging the quality of the smoked crayfish, fresh *bonga* and big fish apply in the fish trade, and networking skills aimed at acquiring fishermen clients who retail the fish is also critical for sustained profitability. Knowledge of the processing and smoking process is critical in the *bonga* trade. Taking over an enterprise from one's mother or building up an enterprise requires knowing the history of the interactions with individual suppliers (clients) and buyers (customers). Certain trading practices require non-trading skills such as speaking certain languages, numeracy or literacy. All these skills have to be learned. Though formal education imparts skills the traders would find useful, many examples were found in Ibaka where illiterate women traded very successfully, which conforms with Clark's observation about the Kumasi market in Ghana (Clark 1994). Thus education beyond literacy is obviously necessary for all traders in the marketplace.

There is no skills acquisition centre in Ibaka or anywhere nearby where girls or women could be taught business methods, accounting or other advanced business skills. Also, formal education socializes young people to elite values and habits that have both advantages and disadvantages for trading. It enables them make elite contacts for supplies and licenses, which is useful for wealthier traders, but – at the same time – discourages poor girls from following their mothers into the local fish trade which is perceived as less prestigious.

In Ibaka, one of the skills many traders found useful was a good command of the *pidgin* English spoken at the beach, apart from the *Ibibio* language spoken in Akwa Ibom State. Rural-rural migration is extensive enough to bring many families of *Ilaje* fishermen and women fish traders from Ondo State in Western Nigeria, whose language of trade is Yoruba. Fishermen and their families also migrate from Ghana, Cameroun and Equatorial Guinea to Ibaka, and in order to communicate and do business successfully, they have to learn *pidgin*, the language of trade in Ibaka. Younger traders had acquired the language from childhood from living in multi-ethnic houses or neighbourhoods or while assisting their mothers at the beach or markets from a very young age, while the older migrant traders start learning by picking up words and phrases from their friends and neighbours in their lodgings, or customers and friends in the market.

Basic skills are learned at a very early age because the children have to be able to remember prices, give change and calculate multiple purchases without supervision, in order to be able to buy and sell from age nine or ten. Most of the traders in Ibaka reported learning basic skills by watching their mothers, which put them in a position to learn more specific and sophisticated skills, as was also reported for market women in the Kumasi market in Ghana

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(Clark 1994). Direct instruction also occurred especially in the fisheries business. Adults also arranged to pair up with friends who knew the ropes for a few weeks or months, helping while observing and asking questions. During their periods of apprenticeship with their mothers or other relations, the young fish traders also receive more direct instructions and do all kinds of menial jobs, which makes them proficient by the time they are getting married and starting their own businesses. These long training or apprenticeship periods are essential for commodities like fish which require accurate and precise quality judgment that cannot be learned quickly. Fresh fish imposes perishability pressures on the traders which demands reliable judgments in order to avoid the loss of the capital, and women growing up in specialized fishing areas acquire the level of expertise others find difficult to match.

7.2.3 Working capital and loans

The amount used as working capital is one of the main determinants of success in the fish trade. The life histories in chapter 5 show clearly how the lack of capital affects the trade negatively. Financial capital is the most versatile kind of asset because it can easily be used to acquire other types of capital such as fish for processing and trade, equipment, land, houses, access to education or vocational training, and to support diversification efforts or alternative sources of income (Kleih et al. 2003). It also improves one's social capital because a high socio-economic status often correlates with autonomy, agency and being respected or feared by others. For example, having financial assets enables a person give loans to those in need, thereby creating obligations for these dependants, as illustrated in Ibaka by the relationships between fish mummies and *bonga* fishermen on the one hand and women *bonga* traders on the other. Money lenders are often feared and/or respected within the community because the poor depend on them for their survival. In Ibaka new entrants into the *bonga* trade who have no working capital depend solely on the fish mammy's generosity in granting them in-kind 'fish loans' which they repay after processing and selling the fish. This continues until they can build up their own capital and become independent.

Financial capital can also be used for supporting livelihood outcomes directly as people can use cash to buy food for meeting household consumption requirements. The amount of working capital available for the fish trade is thus very important for the women because it draws the line between success and failure, and determines the level of success, for those who do succeed. Tables 7.3 and 7.4 show that members of the big fish group were able to mobilise higher levels of working capital than those of the *bonga* and crayfish groups. This is not surprising because the group has members who are older, more educated, and with more years of experience in the trade, and all these factors are important when considering the ability to raise capital for the fish trade.

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Table 7.3: Working capital (in Naira) used by the different fish trade groups

Variable	Fish Trade Group							
	<i>Bonga</i>	%	Big Fish	%	Crayfish	%	Total	%
<30000	16	40.0	15	50.0	16	53.3	47	47.0
30001-60000	14	35.0	0	0	13	43.4	27	27.0
>60000	10	22.5	15	50.0	1	3.3	26	26.0
Total	40	100.0	30	100.0	30	100.0	100	100.0

Source: Household Survey 2007, 2008

Table 7.4: Summary statistics for the mean amounts of working capital used by the fish trade groups (N=100)

Fish trade group	Mean (*)	F value	df	Significance	Critical value	Remark
<i>Bonga</i>	38,822.80 ^a	13.989	2	0.000	0.05	Significant
Big fish	73,083.33 ^b					
Crayfish	23,696.70 ^a					

(*) Means with different superscripts differ significantly, those with the same do not.
One way ANOVA test; F value = 13.99, df = 2, p<0.05

Table 7.4 shows that there are significant differences (F value 13.99, p<0.05) between the mean amounts of working capital used by the members of the three fish trade groups. The calculated F value for the amount of working capital for the three trade groups (13.989) at 0.05 level of confidence indicates that there are significant differences in the means of the amounts of working capital between the three trade groups (Table 7.4). However, even though the mean working capital for the big fish group is significantly different from those of the *bonga* and crayfish groups, the difference between the mean amounts used by the *bonga* and crayfish groups are not significantly different. These arise from factors that influence the ability to source for working capital such as access to credit facilities, the socio-economic status of the fish traders, their mothers and husbands, the age of the fish traders, years of experience, educational status, and the minimum amounts required to start trading on the different species. Members of the *bonga* and crayfish groups are considerably younger, and have less years of experience and education than the big fish group. This may have accounted for their inability to mobilise as much working capital as the big fish group.

It is important to note however, that working capital is only one of the resources the traders need to start the trade and, in view of the minimal capitalization of many market enterprises, it is not considered the most important. Rights to location or other means of access to market locations and introductions to suppliers and buyers are more critical to initial success at the lower levels of trading (cf. Clark 1994). Once established in the trading of a particular species of fish, with a realistic line of supplier credit, a skillful young trader can build up her business successfully on her own.

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Loans

Loans are important for the fish trade in the absence of easy access to sources of working capital. They can be obtained from either formal or informal sources. Formal financial institutions hardly play a role in facilitating the fish trade. Banks have few clients among fishermen and fish traders, who are generally considered not “bankable”, because they have no collateral (or do not wish to use their major asset, their land, as collateral and risk losing it to the bank). A few of the traders do have bank accounts, but they also find it difficult to obtain loans, also because of a lack of collateral. Micro-credit schemes could have been a solution to some, but their outreach is limited. The limited availability of formal capital for fish trading is one of the key factors restricting the sizes of business transactions and the growth of enterprises in Ibaka.

According to Kleih et al. (2003), informal credit such as assistance from financially better-off relatives and friends, loans from local money-lenders or credit in kind, are crucial for the traders’ ability to pursue their livelihood strategies. Because fishing is a highly seasonal activity, incomes of fishermen and traders tend to fluctuate according to the season. Fisher-folk therefore face occasional shortages of cash to meet their households’ needs, hence the need for loans. Despite their need for loans, data from the survey show that only 36.7 percent of the big fish traders and 16.7 percent of the crayfish traders were able to access any kind of loan from formal sources or money lenders between 2002 and 2007, while *bonga* traders were not able to obtain any loans at all. Information obtained from the case studies also show that only the medium and large scale traders, especially those with some level of education, could access loans from money lenders and government institutions. With their high turnover and income levels the large-scale traders can pay the high interests charged by the money lenders and still make a reasonable profit during the peak season. The small-scale traders, on the other hand, are intimidated by the mere thought of approaching a bank or money lender.

7.2.4 Sources of financial capital

There is a limited access to formal financial services such as loans and insurance in places like Ibaka, whereas buyers and sellers of fish are always in need of money, either for their businesses or for their families. The women fish traders would also want to benefit from the security provided by the insurance services to other businesses perceived to be less risky by insurers. However, banks and insurance companies are very skeptical about insuring any aspect of the artisanal fisheries industry. While the banks are afraid of funding a fisherman whose abode is in a semi-permanent community, and who might move to follow the fish anytime a good shoal of fish passes by, the insurers are more scared of insuring mobile equipment such as nets and outboard engines, or temporary *bandas* and market sheds which can all disappear without trace in a single fire incident or storm. Working capital is sourced for through savings, supplies of formal or informal credit, gifts or loans from relatives and friends. Relatives, though important, are not the only sources of working capital. Buyers and sellers, if they know and trust one another well, often give each other informal credit. Depending on the market conditions, these loans flow either up- or downstream in the chain. At peak fishing periods

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when there is a fish glut, traders do buy and sell fish on credit. However, in the lean season, when there is little supply, traders who supply the fishermen with credit, fuel and food for fishing trips have the first right to buying whatever quantity of fish landed by the fishermen. These supply chain credit flows serve to keep the business moving, which is in the mutual interest of the buyers and sellers (KIT and IIRR 2008).

Table 7.5 vividly illustrates the non-availability of loans from formal sources to the Ibaka fish traders. Only a few (16%) of the respondents had ever used loans from formal sources as working capital in the last five years, most of them from the big fish group, while from the *bonga* group nobody had obtained any such loan. Most of the traders sourced for their working capital through gifts or loans from relations or friends (69%) or through their *osusu* groups (50%).

Table 7.5: Sources of working capital in the last five years by type of fish trader

Variable	<i>Bonga</i> N=40%	Big fish N=30%	Crayfish N=30%	Totals N=100%
Loans from formal sources and money lenders	0 (0.0%)	11 (36.7%)	5 (16.7%)	16 (16.0%)
Gifts/loans from relations and friends	37 (92.5%)	17 (56.7%)	15 (50.0%)	69 (69.0%)
<i>Osusu</i> group	15 (37.5%)	15 (50.0%)	20 (66.7%)	50 (50.0%)

Source: Survey 2007- 2008

As described in Chapter 5, the large and medium scale traders from all the groups normally use more than one source, especially during the peak season, to enable them to scale up their operations and achieve a higher turnover and earn higher incomes.

The table also shows that many fish traders got their working capital from multiple sources, irrespective of the group to which they belonged. The most common combination involved taking loans from friends and relations and from *osusu* groups. Only the fairly educated traders were able to take formal loans from government institutions, because it involves a lot of bureaucracy and wastage of precious time travelling back and forth to government offices. None of the traders succeeded in taking any loan from a commercial or micro-finance bank over the period. The new, young and upcoming starters in the *bonga* trade who had no working capital were being sponsored mainly by the fish mummies.

Formal sources, like government financial institutions, banks, and micro-finance institutions, are not present in Ibaka. Informal sources include money-lenders, relations and friends, *osusu* groups, professional associations and churches. Formal credit institutions tend to stipulate requirements that mostly do not acknowledge the problems and needs of fishing communities. Requirements such as a regular income and the ownership of collateral do not fit in with the seasonal nature of the fish trade and the temporary and semi-permanent housing structures in fishing communities. This is why most of the fish traders depend on loans from informal sources. Although borrowing from money lenders is generally regarded as

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exploitative, it has the advantage of being flexible, timely, easily accessible for both production and consumption purposes, locally available, and requiring little bureaucracy. It is common practice for the women fish traders to obtain loans from more than one source whenever the need arises, especially during the peak season, as confirmed in the life histories (Chapter 5). Many of them confirmed that the loans were obtained from friends and relations, as well as their *osusu* groups at the same time.

Data from Table 7.5 suggests a relationship between the sources of financial capital and type of trade group. Also, most of the large-scale and a few medium-scale traders from all the groups were able to access loans from all the sources. The more educated and more experienced big fish traders were also more versatile at obtaining loans from the most difficult sources for their business, while the mostly illiterate *bonga* traders had to rely on their friends and relations as sources of loans.

7.2.5 *Osusu* groups as informal savings and loans institutions

Osusu groups are important for the economic survival of women in rural and urban communities because they provide a safe haven to deposit money as well as a local facility for obtaining credit. Amounts obtained by the women are directly proportional to the periodic contributions to the group's funds. The *osusu* groups also satisfy the social needs of the women because members support each other both morally and socially.

Half of the respondents belonged to *osusu* groups (Table 7.5). The crayfish group had the highest number (66.7%) of members in *osusu* groups, followed by the big fish group (50%) and the *bonga* group (37.5%). No significant relationship was observed between membership in *osusu* groups and the type of fish traded, probably because membership is open only to trustworthy people in the community, irrespective of occupation. Also, since membership in *osusu* groups depends on the ability to make the weekly contributions, many of the women who were unable to join simply could not mobilize sufficient income to pay the weekly contributions, like *bonga* traders with low or no working capital, for example. Other categories of women unable to join were those fairly new in Ibaka who were in the process of building up their social capital or women belonging to other ethnic groups who had not yet earned sufficient trust to be admitted into any group. Membership in an *osusu* group is actually regarded both as a sign of progress for those who are fairly new in the fish trade, and of successful networking and integration for the immigrants, because even if one had enough money to contribute, the groups could refuse to admit a woman on account of her being a stranger or having a bad reputation.

7.2.6 Social capital and the role of family

Social capital is the benefit that individuals or groups receive by virtue of their ties with others. People are dependent on social resources for their livelihood strategies, and these are determined by relationships and networks, which exist within nuclear and extended families, communities and groups (Kleih et al. 2003). Social relations are often informal and based on trust, reciprocity and exchange, and contribute to a sense of belonging. They act as safety nets

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that people use in pursuing their livelihood strategies, especially in times of problems and emergencies. To enter the fish trading business in Ibaka, a young girl is taken on board by the mother, aunty or other relatives and given or loaned working capital. Alternatively, as a newcomer to the trade, she could be introduced to the market, its suppliers and/or customers by female friends or fellow female traders. For a good and regular supply of fish, traders often rely on their relationships with fishermen or other traders, based on either kinship or mutual trust, or both, and a good relationship with the suppliers engenders opportunities for obtaining fish on credit during the peak season, or after incurring losses. *Bonga* processors and traders in Ibaka share smoking facilities, such as the *chorkor* smoker and the *banda*, and market stalls at the Ibaka market, while the big fish traders share a marketing shed and weighing scales at the beach. The crayfish sellers share market stalls at the Ibaka market and storage facilities for unsold products (see Chapter 5).

Though certain aspects of social relations such as ethnicity and religion can affect an individual's access to social capital negatively, these do not play much of a role in Ibaka where the presence of people of several ethnic origins and countries mitigates against discrimination or exclusion. The fact that the majority of the population is Christian also enhances the development of social capital. In Ibaka, social capital also manifests itself in more formal ways through organized groups like the trading and fishing associations, religious groups in the churches, and community development associations. All the fish traders belong both to their fish trade associations and a women's fellowship group in the church, apart from about fifty percent belonging to *osusu* groups.

The use of family members as labour in the fish trade has been documented in Chapter 5 where fish traders reported starting out as unpaid assistants to their mothers or aunts, and serve for periods ranging from 8 to 12 years, depending on their age at first marriage. These periods also served as periods of apprenticeship for the fish traders during which they acquired both basic and specialized skills necessary for success in the fish trade. Table 7.6 confirms the fact that most (96%) fish traders had family members participating in the fish trade. This applied to all *bonga* and crayfish traders and 87 percent of the big fish traders had (female) family members participating in the fish trade.

Table 7.6: Family member participation in the fish trade by type of fish trader

Fish Trade Group	Yes (%)		No (%)		N (%)	
<i>Bonga</i>	40	(100.0)	0	(0.00)	40	(100.00)
Big Fish	26	(86.67)	4	(13.33)	30	(100.00)
Crayfish	30	(100.00)	0	(0.00)	30	(100.00)
Total	96	(96.00)	4	(4.00)	100	(100.00)

During the interviews we observed that even those who educated their children, so they could get jobs and practice other professions, involved them in the fish business after school hours and during the holidays. This may be explained by the inability of most of the women fish traders to afford hired labour. Children's labour thus contributes significantly to performance in the fish trade (and in the household).

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7.2.7 Income and savings

Net income in this study is calculated from whatever amounts remained after the traders' deductions of transaction and any other costs and expenses incurred, from the gross income earned every week during the peak season of 2007/2008. The traders made practical and conceptual distinctions between working capital, capital growth, expenses and disposable income even though they use local terminology. They struggled hard to separate their working capital from their disposable incomes under incessant pressure from maintaining their households, feeding themselves, their husbands and children, paying their children's school fees and poverty. The accounting method used by the fish traders in Ibaka conforms to that described by Clark (1994) for market women in Ghana. They keep only the replacement costs of every unit of sale. Once this figure has been reached, the money is kept separate for the purchase of another unit of sale as needed or for payment of the debt of fish obtained on credit. All additional proceeds are pooled with those of other units sold subsequently, and counted as daily income. Daily expenses on taxes, levies, rent, school fees, health expenses, transport and meals come out of this fund before it is counted at the end of the day, and so the calculated income gets reduced by slow turnover and inflation directly. The 'net income' remaining is thus income after expenses, and in this study represents the profit made, which is used as the indicator for performance. When not spent immediately, it could be called 'savings', which would be available for capital growth, diversification, major purchases or contributions to *osusu* groups. The main disadvantage in this mode of calculating income by the fish traders is that the cost of a unit may suddenly rise, as is common in Ibaka during the transition between peak and lean seasons and during periods of sudden bad weather. The amount set aside for the replacement of the units then becomes insufficient for buying the same number of units. For those traders who make marginal incomes and have hardly any savings, this could result in the reduction of the units purchased, resulting in lower turnover, diminishing returns and subsequent credit purchases.

Table 7.7 also shows that *bonga* traders have the lowest net incomes (67.5 % below ₦20000 per month), while the big fish traders have the highest number of traders in the last two categories; those earning monthly incomes of between ₦20000 and ₦50000 (56.7%), and those earning above ₦50,000 per month (33.3%). The crayfish group on the other hand, has 46.7 percent of traders earning below ₦2,000 and 53.3 percent of those earning incomes of between ₦20,000 and ₦50,000 per month. No crayfish trader in the sample earned above ₦50,000 per month in the sample.

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Table 7.7: Average net monthly income earned between October 2007 and March 2008 (the peak season of 2007-2008) by fish traders

Net Income (*)	Bonga	%	Big Fish	%	Crayfish	%	Total	%
<20000	27	67.5	3	10.0	14	46.7	44	44.0
20000-50000	8	20.0	17	56.7	16	53.3	41	41.0
>50000	5	12.5	10	33.3	0	0	15	15.0
Total	40	100.0	30	100.0	30	100.0	100	100.0

Source: Household Survey 2007, 2008

(*) See explanation above.

The differences in net income may occur for reasons ranging from differences in levels of exposure, amounts of working capital used, turnover, age of the traders which determines the years of experience, transaction costs, to effects of the oil and gas industry. Reasons advanced by the women fish traders and other stakeholders are that the activities of the wood cutters and oil prospectors have resulted in the destruction of the mangrove swamps which the crayfish use as breeding grounds. This has affected the crayfish populations negatively such that even during the peak season, the quantities landed are below expectation and do not compare favourably with quantities landed about five years ago. This contributes to the high prices at the beach and low margins for the crayfish traders, resulting in low incomes. Also, apart from the lower working capital used for the trade by the *bonga* traders, there have been general complaints about reduced landings for *bonga* in recent years. This information cannot be confirmed because of the lack of reliable statistical data over the years.

The figures in Table 7.8 show significant differences ($p < 0.05$) in average monthly net incomes between the fish trade groups (F value 13.903). The results show that the big fish traders earned the highest income. However, even though the difference between the net incomes of the big fish trade group and the *bonga* and crayfish groups was statistically significant, that between the incomes of the *bonga* and crayfish groups was not.

Table 7.8: Summary statistics of average net monthly income of fish traders

Fish trade group	Mean net income (*)	F value	df	Significance	Critical value	Remarks
<i>Bonga</i>	27076.60 ^a	13.903	2	0.000	0.05	Significant
Big fish	90808.33 ^b					
Crayfish	26147.87 ^a					

(*) Groups with similar superscripts are not significantly different, and vice versa.

One way ANOVA test; F value = 13.90, df = 2, $p < 0.05$

Crayfish traders earned the lowest income among the three groups. Their insufficient working capital is a constraining factor. With higher working capital they could store the crayfish and wait for higher prices during the lean season, but in Ibaka such a marketing strategy is not common due to the absence of storage facilities, the lack of access to sufficient working capital

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and the absence of savings, credit and insurance facilities. With adequate storage facilities and sufficient working capital, the crayfish traders would have been able to store it without deterioration in the product quality, and monitor the market during periods of wild price fluctuations. They would then sell when prices stabilize and make more profit, a strategy commonly used by traders of non-perishable farm products upland.

Seasonality determines the level of income earned and thus the profit that can be made because prices fluctuate depending on the seasons. During the peak season when fish production is at its peak, incomes are higher and it is easier to make reasonable profit in the fish trade. However, during the lean season, when the seas are very rough, and there are storms, flooding and high water, it becomes very difficult to make any reasonable profit because the low quantities of fish landed command such high prices that the margins are lower and many fish traders do not have sufficient working capital to make any meaningful purchase and thus cannot cope with. This accounts for why the incomes are computed for the fish traders using their sales made during the peak season only.

Savings

Savings is defined as income remaining after all expenses. Results of the life histories show that savings are kept in different places, depending on the trader's circumstances. The few educated traders save in the bank, others either domicile their savings with *osusu* groups or put it in bottles which they bury underground. Savings are also added to raise the working capital or used to defray loans, as in case of the members of *osusu* groups who have taken their turns and have to make weekly contributions until a full cycle has been completed.

Table 7.9: Savings by type of fish trader

Variable	Fish Trade Group							
	<i>Bonga</i>	%	Big Fish	%	Crayfish	%	Total	%
Yes	15	37.5	18	60.0	20	66.7	53	53.0
No	25	62.5	12	40.0	10	33.3	47	47.0
Total	40	100.0	30	100.0	30	100.0	100	100.0

Source: Household Survey 2007 – 2008

Chi-square test: $df = 2, \chi^2 = 6.60, p < 0.05$

Possession of savings is one of the proofs of success in the fish trade. Table 7.9 shows that 53 percent of the fish traders had some savings, while 47 percent did not have any. More crayfish and big fish traders seemed to have savings (66.7% and 60.0%, respectively) than the traders in the *bonga* group (37.5%).

The significant chi-square (6.60) suggests a relationship between ability to save and type of trader. This may be explained by the fact that the use of higher working capital for the fish trade results in the earning of higher incomes, some of which translate into savings. The differences in the number of savers between the crayfish (66.7) and *bonga* (37.5) trade groups, both of which have younger fish traders who should have correspondingly lower levels of

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responsibilities, may probably be explained by the fact that the crayfish traders have less dependants and responsibilities than the *bonga* women. Within the *bonga* group some members trade without any working capital, which translates into relatively many (62.5%) traders without any savings in this group.

According to the information obtained from the survey and case studies, most of the women saved their money with *osusu* groups (87.7%), while very few women used the bank or kept it in the house. This may be due to a high illiteracy level and insufficient incomes. The fear of losing the money to fire because of frequent fire incidents, theft or confiscation of the money by their husbands were also mentioned in the interviews as reasons for saving with *osusu* groups (Chapter 5).

7.2.8 Ownership of assets and resources

Ownership of assets is made possible through accumulation. It also is a means as well as a result of diversification. Table 7.6 shows the assets owned by the women fish traders and the differences in ownership of assets between the three groups. The big fish traders own more assets (43.3%) than the traders in the crayfish (26.7%), and *bonga* (7.5%) groups. In line with the above, the percentage of those who have no assets whatsoever is highest in the *bonga* group (92.5%), followed by the crayfish group (73.3%), and least in the big fish group (56.7%). An explanation is that the *bonga* group members have the lowest working capital, with correspondingly low incomes. The value of the chi-square ($\chi^2 = 14.401$, $p < 0.05$) indicates significant differences in asset ownership between the three groups, which may be caused by the differences in income of the women fish traders from the different groups. Big fish traders have the highest income and own more assets than the *bonga* and crayfish traders.

Table 7.10: Assets owned by type of fish trader

Assets	<i>Bonga</i> (%)	Big fish (%)	Crayfish (%)	Total (%)
Nil	37 (92.5)	17 (56.7)	22 (73.3)	76 (76.0)
Equipments	3 (7.5)	6 (20.0)	5 (16.7)	14 (14.0)
Land/House	0 (0.0)	7 (23.3)	3 (10.0)	10 (10.0)
Total	40 (100.0)	30 (100.0)	30 (100.0)	100 (100.0)

Source: Household Survey 2007, 2008

Chi-square test: $df = 4$, $\chi^2 = 14.401$, $p < 0.05$

Higher incomes enabled the large scale fish traders in all the trade groups to acquire equipments such as outboard engines, fishing and transport boats, and other assets such as land, houses, generators, deep freezers, market stalls as well as fish trade titles. Market assets such as stalls and fish trading titles are trade group and location specific. For example, those traders who inherit the *bonga* trade titles from their mothers continue in the *bonga* trade in order to realize full value.

Leasing-out of equipment is a means of diversification and an insurance against the vagaries of the fish trade. The equipments are normally purchased from savings made from the

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proceeds of the fish trade and leased out to water transporters (for transport boats and outboard engines), and fishermen (for fishing boats, outboard engines and fishing nets) and are kept in Ibaka, for close supervision. Fees paid by the lessors of the equipment constitute additional income for the women fish traders. The land and houses acquired are normally located far from the beach if owned by indigenes, or in their permanent villages upland, in other states or countries if owned by non-indigenes.

7.3 Performance in the domestic domain

7.3.1 Children's education

Most of the married women fish traders are involved in polygamous, duo-local marriages and all the children live with their mothers who take sole responsibility for their feeding and upkeep. Results of the survey showed that 40 percent of the fish traders have up to three children, 50 percent between four and six children, while about 10 percent have more than six children. There is no significant difference between the number of children borne by the women fish traders from the three trade groups. This is probably because being mostly from coastal communities, or having lived in the same community, they are subjected to the same societal pressures and culture.

Because most of the women fish traders did not have the opportunity to attend or finish school, most of them were anxious to put their children through school so they would not end up as fish traders, like them. They believe that if they had gone to school, they would have done better for themselves and their children. Many women fish traders expressed their dislike for the fish trade and wished their daughters would not get involved in it, except as a last resort. MH in Chapter 5, adjudged to be the most successful fish trader in Ibaka, expressed her happiness because of her children's performance at school. During the interview she reported that three of her four children were in higher educational institutions, and would get a good job out of Ibaka on graduation, and that her only daughter was definitely going to complete her education and not get involved in the fish trade, even though she was very successful at it. She had completed a self-sponsored university degree herself, and confessed that even though she was looking for a teaching appointment, she would continue with her fish trade business.

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Table 7.11: Number of children in school by type of fish trader

Number of children in school	Fish Trade Group							
	<i>Bonga</i>	%	Big Fish	%	Crayfish	%	Total	%
Nil	20	50.0	3	10.0	5	16.7	28	28
1 - 2	12	30.0	2	6.7	9	30.0	23	23
3 - 4	7	17.5	17	56.7	7	23.3	31	31
5 – 6	1	2.5	8	26.6	9	30.0	18	18
Total	40	100.0	30	100.0	30	100.0	100	100

Source: Household Survey 2007, 2008

Kruskal-Wallis test, $H = 15.66$, $p < 0.05$

Among the *bonga* traders only 50 percent have children in school, 83.3 percent of the crayfish traders have children in school, while 90 percent of the big fish traders have at least one child in school. Even though some of the *bonga* traders are quite young and may not have children of school age, it is especially the lower incomes of the traders in this group that accounts for their inability to send their children to school. It should be noted, however, that in all groups women had children who had dropped out of school, either because the mothers could not afford their school fees or because they reckoned they would make more money at the beach if they joined in the fishery business. This was considered a better prospect than complete schooling only to come out and face a life of joblessness. The significant difference ($p < 0.05$) in number of children in school between the three groups can be expected given the significant differences in income levels (Table 7.8). The big fish group with the highest income had a higher percentage of children in school than the *bonga* group with the lowest incomes. It should be noted that the ability to maintain children in school and pay their school fees, in addition to their feeding and upkeep in the household is an indication of success both in the household and in the fish trade business, because without adequate income from the trade, it is impossible to achieve both.

Payment of school fees

The results of the survey and life histories showed that school fees were mostly the responsibility of the women fish traders. In 76.4 percent of the cases the women paid the fees while their husbands or children's fathers paid fees in 12.5 percent of the cases (Table 7.12). Fees for 11.1 percent of the school children were paid by both parents. This means that women either wholly or partly had an input in 87.5 percent of the cases. The focus group discussions and case studies revealed that most of the fathers who either paid or contributed to their children's school fees were immigrants from upland communities. The typical coastal fishing community culture which operates in Ibaka and other coastal communities in the Niger Delta does not recognize catering to the children's needs as a man's responsibility.

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Table 7.12: Payment of school fees by type of fish trader

Person who pays	Fish Trade Group							
	<i>Bonga</i>	%	Big Fish	%	Crayfish	%	Total	%
Fish trader	15	75.0	15	55.6	25	100.0	55	76.4
Husband	3	15.0	6	22.2	0	0	9	12.5
Both	2	10.0	6	22.2	0	0	8	11.1
Total	20	100.0	27	100.0	25	100.0	72	100.0

Source: Household Survey 2007, 2008

The results also show that all the crayfish sellers with children in school paid their children's school fees without any assistance from their husbands, and about 75 percent of the *bonga* traders and 55 percent of the big fish traders did so.

7.3.2 Housing

In fishing communities like Ibaka the housing type varies between semi-permanent and permanent, with the semi-permanent type dominating (Table 7.13). The semi-permanent category (65%) is generally constructed with flammable materials like sticks, thatch and plastic sheets used for the walls, mud for the floor, and thatch roofs, with makeshift doors and windows, making them very unsafe for habitation and for safe-keeping money or valuables. They are normally crowded at the beach and occupied by small and medium scale fish traders and their families, many of whom are immigrants. The permanent houses (35%) are made of cement or mud floors, cement walls and zinc roofs, and are constructed mostly by indigenes of Ibaka or nearby communities, further away from the beach. The semi-permanent structures are normally affected during fire incidents and this group of traders, who need to increase their capital base lose their properties regularly to fire incidents.

In the absence of banks, a few of the women fish traders informed us that whatever savings they have are normally buried underground in a bottle. Most of the others said they used their savings for their *osusu* contributions. This was convenient because, since the contributions were made on a weekly basis, it relieved them of the need to find a safe place to keep their money at the end of the week. Contributing to their *osusu* groups also enabled them to grow their working capital, apart from using such money for diversification into other economic activities. A few big fish traders actually kept some of their savings in the bank, while a few crayfish traders living in secure, permanent houses, on their own, kept their money in the house. Those living with husbands said they would never make such a mistake.

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Table 7.13: Types of housing occupied by type of fish trader

Housing type	<i>Bonga</i>	%	Big Fish	%	Crayfish	%	Total	%
Semi-permanent	37	92.5	3	10.0	26	86.7	65	65.0
Permanent	3	7.5	27	90.0	4	13.3	35	35.0
Total	40	100.0	30	100.0	30	100.0	100	100.0

Source: Household survey 2007-2008

Chi-Square = 59.37, df =2, p<0.05

Medium- and large-scale fish traders with higher incomes live in permanent buildings further from the beach, while the small-scale traders clustered themselves into the semi-permanent structures near the beach. Hence, good economic performance enables some fish traders to put up permanent structures for themselves and their children in Ibaka.

7.3.3 Energy and water use

The main sources of cooking energy in Ibaka are kerosene and firewood. The percentage of those who used kerosene was 54 percent, 46 percent used firewood. There is no statistically significant difference between the three trade groups in the source of energy used for cooking. The use of firewood for cooking and fish drying accounts for the high number of fire incidents reported in the community in the last few years. It also accounts for the deforestation of the mangrove forests complained of by the women themselves, resulting in the depletion of nursery grounds for crayfish and other fish species. The depletion of the forest drives up the prices of firewood because the wood vendors have to go further into the swamps to look for it, contributing to higher prices for the smoked fish and crayfish. The medium- and large-scale traders use kerosene stoves for cooking, while all the small-scale traders use firewood. Higher income levels therefore enabled women purchase and maintain kerosene stoves for the convenience of their households.

Energy used for lighting in the community was either petrol, used in electricity generating sets or kerosene, used in bush or hurricane lamps. A few households of the large- and medium-scale traders were observed to use generators (13%) while all the others (87%) used hurricane lamps or candle. No significant differences were observed in the use of the two sources of lighting energy between the three groups. Ownership of a generating set in a household in Ibaka is actually a good indicator of success in the trade, and a status symbol.

Sources of water in the community include shallow wells dug by members of the community, the river, and commercial boreholes. The water from the shallow wells and the river, which is free, is not fit for drinking due to pollution. The only source of potable water in the community is the commercial borehole, where water is sold for ₦10 for a 20-litre plastic container. The ability to purchase sufficient quantities of potable water for fish processing and for the household is determined by the level of income of the fish trader. *Bonga* traders have to process their fish and therefore use larger volumes of water than the other two groups. They end up spending a lot more money on buying borehole water which is very important for fish processing. The use of potable water in the household also determines the health status of the

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household because causes of diseases like cholera and diarrhea have been traced to drinking water sources. Therefore, where the fish trader earns low income from the fish trade, her performance in the economic domain will be low, affecting her ability to maintain a healthy household.

7.3.4 Health status of household

The health status of the households is reflected in the common ailments reported by the fish traders. Malaria and typhoid proved to be the most common ailments in Ibaka, just as in the national population. Malaria is endemic in Nigeria because of the inability to eradicate the anopheles mosquito which carries the malaria parasite, *Plasmodium falciparum*. Mosquitoes thrive in crowded environments, such as Ibaka. The incidence of cholera and dysentery reported in Ibaka seem to be low, probably because the women have discovered how to treat it locally without having to go to the hospital.

When asked what illnesses were predominant in the households during the three months before the survey, malaria and typhoid were reported by 75 of the 100 households, cholera and dysentery by 14, back ache by 7, and cough and eye problems by 4. Backache and eye problems are health issues associated with the large-scale processors of *bonga*, of which there are few, hence the low incidence. It is also possible that it is under-reported because a lot of them consider it as normal. The process of cleaning the fish involves bending down often, resulting in backache. Smoking in open *bandas* within the residential area ensures the inhalation of smoke which causes respiratory problems. The smoke also affects the eyes, resulting in red eyes and other eye problems. No cases of AIDS were reported.

According to the data from the survey, focused group discussions and case studies, the health bills of the households were borne solely by the fish traders, just as the provision of food and clothes for the family. Therefore the higher income earners are able to foot their children's health bills and ensure their good health, which is an indicator of performance in the domestic domain. However, with the high level of illiteracy, the self medication practiced by the women, and the water and sanitation problems in Ibaka, there is a rising rate of reported cases of deaths from malaria and typhoid, many of which are ascribed to witchcraft.

7.4 Institutional constraints militating against performance in both domains and the strategic responses

The institutional constraints experienced in the economic domain by the women at the personal and household levels as listed by them during the focus group discussions, case studies and interviews and the coping strategies devised by them are categorized into those relating to marketing and finance as shown in Table 7.14. Those relating to infrastructure are shown in Table 7.15, and those relating to labour in Table 7.16.

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Table 7.14: Analysis of constraints related to marketing and finance and strategic responses

Constraints	Causes	Strategic Responses
Insufficient supply of fish	- Seasonality - Gas flares from oil industry - Poaching	- Diversification - Temporary migration
Lack of trading information	- Lack of group action to obtain information	- Prices are not fixed according to demand and supply levels but determined by other factors
Limited marketing outlets	- Poor market information; - Lack of infrastructure	- Store or process leftovers; - Sell fish on credit
Lack of formal credit facilities and insurance	- Absence of insurance, banks and NGOs - High risk of business - Isolated location and crowded housing	- Borrow money from friends/relations; - Pool working capital with friends - Buy fish on credit
Credit sales	- The desire to increase turnover and incomes	- Build relationships with clients based on trust
Loss of fish sold on credit	- Misplaced trust: - Road accidents involving clients and fish.	- Go to church for prayers against future occurrence. - Obtain emergency loan
High cost of ice	- Private ice plant operated with generating set	- Strive to sell fresh fish and use ice when absolutely necessary - Smoke the remaining fish - Use cold room for unsold fish - Call clients in the city for faster evacuation
Seasonality, higher rises in sea level	- Natural cause - Climate change	-Diversification -Forced temporary migration
High price fluctuations	- Seasonality - Unstable input costs - Lack of market information - Unstable price of fuel	-.Seek in-kind loans from fishermen, and sponsorship from fish mammals -.Refrain from buying during spikes or combine operations with friends
Loss of assets and working capital through frequent fire incidents	- Fish smoking on open fire - Crowded housing - Houses made of flammable materials	- Bury money in the ground; - Save with <i>osusu</i> groups - Keep assets in permanent homes upland.
Administrative harassment	- Weak groups - Inability to lobby and engage with authorities	- Pay unauthorized levies at the beach and main markets to avoid harassment.
Low margins	-.Lack of information on market prices	-.Sell at going prices at the beach and main markets

The lack of electricity or potable water and the rudimentary educational and health facilities pose serious problems to the community. The nearest functional banking and cold storage facilities are at Oron, about 45 kilometers away. Also, the first 4 kilometers of the link road from Ibaka to Oron is almost impassable in the rainy season, further increasing the costs of transport and doing business.

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Table 7.15: Analysis of constraints related to infrastructure and strategic responses

Constraints	Causes	Strategic Responses
Lack of potable water	- No functioning water taps	- Fetch water from shallow wells - Buy water from commercial boreholes
Lack of electricity	- Not connected to national grid	- Use of kerosene lamps - Use of generating sets
Lack of health facilities	- Health facility far from community	- Patronise patent medicine stores and traditional medical practitioners
Insufficient educational facilities	- Policy implementation failure	- The wealthy send children to better private schools. Others manage what is available. Drop out and get involved in the fisheries
Poor quality link road	- Non-maintenance of link road	- Increase fish prices to compensate for high transport costs
No fish marketing hall, shed or facility	Policy implementation failure	- Fresh fish displayed on sand at the beach. - Spend money on water to wash the fish - Clean and smoke quickly to prevent spoilage
Lack of efficient processing facility	- Non-provision by government; - Resistance to change to <i>chorkor</i> smoker or <i>banda</i>	- Fish smoked in open halls, kitchens and on open fires
Lack of cold storage facilities causing high spoilage rate	- No electricity. - High cost of running a private facility	- Use freezers boxes packed with ice to preserve fresh fish - Transport unsold fish to cold room 45 km away - Sell as much fish as possible, sometimes at a loss, or on credit
Lack of extension information	- Rudimentary extension service targeted at fishermen	- Use old, traditional methods to process fish
Lack of pricing / market information	- Loosely, individually organized marketing system	- Sell at daily prevailing price
Poor and low level of organisation	- Extension service failure - Lack of awareness - Illiteracy	- Individual enterprise operations - Rudimentary groups with weak structures.

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Table 7.16: Analysis of constraints related to labour and strategic responses

Constraints	Causes	Strategic Responses
Lack of help in the household	<ul style="list-style-type: none"> - Remote location of fishing community. - Bilocal residence - Having young children 	<ul style="list-style-type: none"> - Withdrawal of young female children from school to help in the household - Children above 10 years also act as mother-substitutes at home
Lack of help in the fish trade	<ul style="list-style-type: none"> - Lack of money to hire labour - Only 'grown up' female children can help out because of gender division of labour - Children above 10 years also act as mother-substitutes at home 	<ul style="list-style-type: none"> - Spend most of her time on the fish trade and deploy children, where available, as labour for the fish processing and trade
Scarcity of sufficiently skilled labour	<ul style="list-style-type: none"> - Remote location - Harsh and risky environment - Requires skill and proficiency 	<ul style="list-style-type: none"> - The wealthy women employ labour while others struggle, with the help of their female children

Fish processing is solely a women's activity, so the labour pool is limited to the skilled and proficient. Girls are therefore often deployed as assistants. The period they spend assisting their mothers, aunties or female relations also serve as their apprenticeship period before starting their own trade before or after marriage. The young women marry early and when they do, have to start their own fish trading businesses in order to maintain their families. The period of assistance/apprenticeship is therefore not as long as their mothers or aunties would wish and this results in the perpetual shortage of labour for the not-so-wealthy. Only the large- and medium-scale traders can afford hired labour.

7.5 Cultural constraints and strategic responses

The cultural constraints experienced in the economic domain by the women at the personal and household levels as listed by them during the focus group discussions, case studies and interviews, and the coping strategies devised by them are categorised into those relating to beliefs and taboos as shown in Table 7.17, ethnicity in Table 7.18 and those relating to norms, values and family life in Table 7.19.

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Table 7.17: Analysis of constraints relating to beliefs and taboos and strategic responses

Constraints	Causes	Strategic Responses
No fishing or trading activities on Sunday and other Christian holidays	<ul style="list-style-type: none"> - Sunday is a holy day in Christendom. - Celebration of Christmas and New Year 	<ul style="list-style-type: none"> - Use Sunday for cultivating social capital (Attending church, meetings, ceremonies, visiting friends and family) - Housework, taking care of self and family - Migrant traders go to their permanent homes for the celebrations
No fishing or trading activities on days set aside for traditional rites and ceremonies	Worship of the gods of the water (<i>Awesu and Amamong</i>) to ensure safe seas and more fish	<ul style="list-style-type: none"> - Stay home and pursue other activities - Carry out processing activities at home - Carry out other economic activities at home.
The belief of having to use only costly mangrove (<i>Rhizophora spp.</i>) wood for smoking fish	Belief that only mangrove gives the desired taste to smoked fish.	<ul style="list-style-type: none"> - Usage of cheaper wood for initial smoke/ drying and mangrove for the final smoking stage.

The non-fishing and trading days result in loss of income to the traders. However, they use those days for club and other meetings, networking, visiting, attending to their social responsibilities, ceremonies, church activities, cultivating their social capital in the process. It is also used for taking care of themselves, their homes and families. In using the new smoking procedure, the women have successfully reduced the cost of processing fish. The assumption is that the smoked fish tastes the same way since the consumers have not yet detected the differences in taste, if any.

The presence of many ethnic groupings in Ibaka is a result of either forced migration of fisher-folk from other fishing communities due to fire incidents and conflicts or voluntary migrations of fisher-folk and traders from other fishing settlements, upland communities and international fishermen and their families looking to earning income from the fisheries. In order to integrate successfully they join the churches, professional associations, *osusu* groups, sharpen their networking skills, develop friendships and inter-marry. The churches, apart from being acknowledged by the women fish traders as offering moral and spiritual support, have been acknowledged as being pivotal to the successful development of social capital and networks, and of facilitating the integration of migrant fisher-folk.

Culture has a very strong influence on the women’s economic activities and social life. Polygamy, patriarchy and sexual discrimination pose such daunting challenges that only the strong, determined, diplomatic and innovative can adapt to the situation and make a successful living. The culture of smoking fish using open fires and the crowding of houses near the beach expose the women and their children to frequent fire incidents which result in losses of fish, assets, cash and their houses.

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Table 7.18: Analysis of constraints related to ethnicity and strategic responses

Constraints	Causes	Strategic Responses
Difficulty in learning the local culture for traders with different ethnic origins and therefore different cultural backgrounds	<ul style="list-style-type: none"> - Forced migration to Ibaka due to fire incidents and conflict - Voluntary migration to areas with more fish. - Intermarriage - Search for incomes by poor women from upland communities 	<ul style="list-style-type: none"> - Joining a church organization - Joining a self help or <i>osusu</i> group - Developing networking skills - Use of social capital of partners or friends - Intermarriage with indigenes

During the analysis of the case studies, interviews and focus group discussions, a variety of adaptation strategies emerged. There is evidence of fish trade group members helping each other, as in the case of getting sponsorship from a fish mammy or a loan from friends and colleagues. Through special arrangements, big fish or crayfish could also be obtained on credit from the fishermen. The women also developed their own networks and social capital. Younger traders also tried to acquire formal education and improve their life-skills to protect their livelihoods. Those with good incomes set up other micro-businesses (petty trading, hair dressing and dress making shops), farming and organizing informal credit. The churches offer many networking and socialisation opportunities, especially for migrants like the *Ilajes*, *Ijaws*, Ghanaian and Cameroonian fishermen and fish traders, who seek to develop their social capital from there. They also serve as places of solace for everyone, for prayers against perceived insurmountable problems.

The strategies adopted are affected by factors such as age, educational status, years of experience, and the amount of working capital available for the trade. From the results, the younger traders try to acquire other skills and formal education to enable them to diversify while the older women concentrate more on educating their children, developing their social capital and expanding their networks for better business connections apart from diversifying.

Most of the younger women depend on their husband's, or mother's networks and social capital while trying to build up their own. More educated women participate in the more lucrative and better organized big fish trade, and deploy their profits into other tangible economic activities while most of the less educated women end up in the *bonga* and crayfish trade, with lower margins and higher risk. This is probably because the big fish trade requires more capital which can more easily be raised by a literate person. It is also more complicated and requires resourcefulness and innovation, especially during the peak season.

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Table 7.19: Analysis of cultural constraints related to norms, values and family life and strategic responses

Constraint	Causes	Coping Strategies
Involvement in polygamous marriages with absentee husbands	<ul style="list-style-type: none"> - Husband’s job of “following the fish” - Marriage practice in the community; - Ineffective penal system. 	<ul style="list-style-type: none"> - Diversification of economic activities to take care of self and children - Use of absentee husband’s social capital, networks, assets and resources - Develop strong personal social capital
Non-inheritance of property by women	<ul style="list-style-type: none"> - Patriarchy 	<ul style="list-style-type: none"> - Networking for enhanced social capital - Lobbying and patronizing of in-laws to ensure greater access to husband’s resources - Diversification for higher incomes
Non-recognition in society	<ul style="list-style-type: none"> - Sexual discrimination 	<ul style="list-style-type: none"> - Seeking autonomy through economic independence - Use of social capital and networks - Advocacy
Emphasis on having many, especially male children.	<ul style="list-style-type: none"> - Perception of children as insurance against old age 	<ul style="list-style-type: none"> - Using the children as labour - Using grown up female children as mother-substitutes to enable them have free time for economic activities - Having male children ensures access to husband’s assets and resources
Ill health: eye problems, cough and back ache	<ul style="list-style-type: none"> - Smoking with open fire - Continuous bending down to process and smoke fish; crowded housing 	<ul style="list-style-type: none"> - Use of palliatives such as traditional medicine and eye drops from the chemists
Crowded nature of housing near the beach causing massive destruction during fire incidents	<ul style="list-style-type: none"> - Effort to reduce distance between house and beach for easier coordination of both 	<ul style="list-style-type: none"> - Keep tangible assets in permanent homes, away from the fishing community - Building houses further from the beach - Bury money in the ground
Non-contribution of husbands to family’s upkeep and children’s education	<ul style="list-style-type: none"> - Polygamy - Non-pooling culture 	<ul style="list-style-type: none"> - Strive for independent income and autonomy

Women with grown-up children like trader MH in Chapter 5 could afford to be away from home for longer periods because the female children help take care of the household, whereas women with younger children do business as close to home as possible. The former have more time for economic activities than the latter and mobilize more income for the household. Female children above twelve years are normally deployed into the trade.

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The more experienced women have a wider network and higher social capital, developed and acquired over the years and used daily for the trade, while the less experienced women are still building their networks and social capital. The more experienced women also know the intricacies of the trade, and generally earn higher incomes while the young and less experienced are learning on the job.

The capital outlay has a great influence on the adaptation strategy adopted because a high capital outlay means usually higher profit which can be deployed into other economic activities. For example, MA, a middle-aged, large-scale crayfish trader in Chapter 5 was able to buy sewing machines and set up a dress making shop at Ibaka, while owning a shop in the fish market where she trades, and a storehouse where others store their unsold crayfish bags for a fee at the end of each day. MH, a large scale big fish trader, owns her own fishing boat and engines, hires fishermen to fish for her and also owns a transport boat which she bought from the proceeds of her fish trade. Her three children are all in tertiary institutions and she was just finishing a degree programme at the University.

7.6 Inter-relationship between the economic and domestic domains

In the fish trade in Ibaka no boundaries seemed to exist between the domestic domain and the economic domain since fish processing and trading activities were carried out irrespective of place and time. Everything that transpired within one domain affected the other.

Time allocation

Livelihood construction is an on-going process demanding several strategies over time, and outcomes of previous livelihood strategies influence present and future decision-making (Pennartz and Niehof 1999). Results obtained show that the fish traders allocated most of their waking hours (about 9 hours per day) to their economic activities, with little time left to take care of their children, themselves and their households (Table 7.20). However, segregated data for different trade groups show that there is a significant difference between time allocated to economic activities by trade group, with *bonga* traders allocating more hours (10.1) than the big fish and crayfish traders (7.7 and 7.4, respectively).

The difference is probably caused by the long hours the *bonga* traders wait at the beach for the *bonga* to arrive, which the crayfish and big fish sellers do not have to do. They also do not have to deal with the fish mammy. Lastly, while the *bonga* traders have to process the fresh *bonga* before taking it to the market, the big fish traders sell directly at the beach to retailers and the crayfish traders take delivery of the smoked crayfish and head directly to the market. Most of the non-fish economic activities actually take place outside the beach and are not location specific, for example buying and leasing of equipment and shops.

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Table 7.20: Average time allocation per day in hours for economic activities by type of trader

Economic Activities	<i>Bonga</i> (N=40)	Big Fish (N=30)	Crayfish (N=30)	Total (N=100)
Fisheries	8.0	6.7	6.8	7.3
Non-fisheries	2.1	1.0	1.6	1.6
Total	10.1	7.7	8.4	8.9

Source: Case studies and household survey 2007-2008
 One way ANOVA test, F value = 62.36, p< .0001

Domestic activities include buying and cooking of food, housekeeping and care giving, and fetching water and firewood. While the economic activities have to be carried out personally by the traders themselves with the help of their children, most of the domestic activities get carried out by children, some of them only ten years old. For example, older daughters buy food from the market and cook, take care of the babies and keep the house. Water gets delivered by water-carriers who ferry them around from house to house in 20-litre containers for those who can afford to buy. Those who cannot afford to buy this water send their young children to fetch well water or buy borehole water. Most of the fish traders end up spending very little time on domestic activities, even when they are at home because when they move from the beach, the economic activities continue at home. The *bonga* trader starts processing and smoking while the big fish trader arranges for the preservation and sale of leftover fish that could not be sold at the beach. Thus the more the time spent on economic activities, the less the time left for activities in the household. Just as there is a significant difference in the time allocation on economic activities between the three groups, there are significant differences between the three groups on time allocated for domestic activities.

Table 7.21: Average time allocation per day in hours for domestic activities by type of trader

Activities (*)	<i>Bonga</i> (N=40)	Big fish (N=30)	Crayfish (N=30)
Buying and cooking food	1.7	3.6	2.1
Housekeeping & care giving	1.2	2.5	1.4
Fetching water and firewood,	2.6	0.5	1.2

Source: Survey 2007- 2008

One way ANOVA test: F value= 6.43 at 4df, p<.01

(*) Hours spent on different domestic activities overlap with each other and sometimes with those spent on some home-based economic activities.

With all other conditions being favourable, spending a lot of time on economic activities should yield sufficient incomes for the fish traders, which would translate into success in the economic domain. The incomes earned would enable them to sustain their households, feed their children, pay their school fees and take care of all their needs. Extra incomes would also

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ensure improved health status, and general wellbeing. Therefore success in the economic domain automatically translates to success in the domestic domain.

Housing Type

The type of housing is determined by the level of income of the fish traders, their ethnicity and status. Permanent type houses are inhabited by well-to-do medium and large scale traders, many of whom are indigenes of Ibaka and may be living in family houses further from the beach, while semi-permanent houses are inhabited by low income traders, mostly of the *bonga* trade group. Performance in the economic domain therefore has a positive influence on the types of houses occupied by the fish traders. The fact that the so-called “strangers” or those Nigerians of other ethnic origins outside of Mbo Local Government, and foreign nationals populate the *bonga* business explains why most of them cluster in the rented *batchers* at the beach. However, this does not imply that all the traders clustered at the beach are earning low incomes. The *Ilajes* and Ghanaians for example, many of whom are doing well, explained that they find it convenient and expedient to stay near the beach and conduct their businesses, and some of them have built permanent structures in their home villages upland and in Ghana respectively.

Income and savings

The level of income earned determines success in the fish trade and performance in both the economic and domestic domains and the net incomes earned by the fish traders gave a good idea of the profitability of their businesses. In Chapter 5 we saw that the small scale fish traders in all the fish trade groups, who earn very little were unable to educate their children and take care of their households. They also lived in semi-permanent housing, cooked with firewood and used the bush lamp for lighting. The medium and large scale traders, on the other hand, whose earnings are better, apart from acquiring equipments, land and houses, were also able to take care of their households, feed and educate their children and diversify into other profitable economic activities. Profitability therefore affects performance in both domains because the higher the profit, the more the disposable income that can be deployed in the domestic domain.

Very few fish traders were able to save in a bank. Possession of savings, kept either in the bank, with an *osusu* group, or underground in a bottle is an indication of success in the fish trade, and, therefore, performance in the economic domain. Those who have insufficient incomes cannot save. The women fish traders confirmed that they could only save after taking care of all their responsibilities towards their households and children. Those who have savings thus are those who are successful both in the economic and domestic domains.

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7.8 Vulnerability of women fish traders in Ibaka to HIV and AIDS

7.8.1 Sources of information on HIV/AIDS in Ibaka

There is a growing concern that the HIV and AIDS prevalence is higher in fishing than in agrarian communities due to the nature of these communities (Allison and Seeley 2004, Béné et al. 2005). However, very little is known about the incidence of AIDS in coastal fishing communities in Nigeria. Information gathered from the survey and life histories of women fish traders in Ibaka showed that almost all women from the three trade groups were aware of the existence of HIV and AIDS, except two middle-aged *bonga* traders who claimed ignorance. Further analysis of the results, shown in Table 7.22, reveal various sources of information, including the radio (40.8%), government and NGOs (29.6%), friends and relations (16.3%), and the churches (13.3%). The government-run radio and other government sources (health centres, schools and other government facilities) thus were the major source of information about HIV and AIDS (70.4%), followed by friends and relations, and the churches. This means that the Nigerian government is acutely aware of the problem of HIV and AIDS and is disseminating information about it and the risk of infection to the remotest areas, even though intervention strategies are mainly directed at the cities and high risk populations such as trailer drivers and commercial sex workers, Fishing communities, reportedly high-risk communities, are largely ignored. The problem seems to be the lack of capacity to reach out to such remote high risk communities by both government agencies and civil society organizations, which underscores the high level of vulnerability of the women fish traders to the scourge.

Incidentally, the radios are not owned by the fish traders or their husbands but by Ibo traders who sell all types of provisions in lock-up stores at the beach market, and at open stalls in Ibaka market. They tune them loudly to attract the attention of prospective customers passing by. The women fish traders who have to wait sometimes for several hours at the beach for fish landings from fishermen inadvertently become their attentive audience, while waiting to sell their wares at Ibaka market or for fresh fish and smoked crayfish boats to arrive at the beach. That might perhaps account for the fact that a considerable percentage of the women heard about HIV and AIDS from the radio without owning one.

Table 7.22: Source of information about HIV/AIDS by type of fish trader

Sources	<i>Bonga</i>	%	Big Fish	%	Crayfish	%	Total	%
Media/Radio	17	44.7	14	47.6	9	30.0	40	40.8
Friends/ Relations	7	18.4	5	16.7	4	13.3	16	16.3
Health Centre	10	26.3	7	23.3	12	40.0	29	29.6
Church	4	10.5	4	13.4	5	16.7	13	13.3
Total	38	100.0	30	100.0	30	100.0	98	100.0

Source: Household Survey 2007 – 2008

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Testing the relationship between source of information and type of fish trader, the chi-square value (Table 7.22) is not significant, suggesting that there is probably no relationship between type of trade group and the sources of information. This could be because they all buy and sell both at the beach and at Ibaka market and patronize the same health centre or clinic, schools and other facilities in Ibaka. Women attending ante-natal clinics are usually lectured on how to avoid the HIV virus, and prevention of transmission to the foetus. They are also tested for the virus where they have testing facilities. This accounts for 29 percent of the women obtaining the information from the health centre. NGOs visit churches during awareness creation campaign periods on HIV/AIDS, which has also helped to spread the message while the remaining 16 percent obtain their information during social net-working and discussion with friends and relations.

7.8.2 Vulnerability of the women fish traders to HIV and AIDS in Ibaka

Kissling et al. (2005) compare HIV prevalence among fisher-folk with that of the wider population as well as with groups that are generally considered high-risk groups.. In nine of the ten low- and middle-income countries they sampled, fisher-folk had higher HIV prevalence rates than the general population. Reports from studies conducted in fishing communities in other parts of Africa show that prevalence rates for fisher-folk were 20.3 percent in the Democratic Republic of Congo, 30.5 percent in Kenya and 24.0 percent in Uganda, respectively 4.8, 4.5 and 5.8 times higher than in the general population (Allison and Seeley 2004). Moreover, in Kenya and Uganda, the incidence was respectively 2.1 and 1.8 times higher than that of truck drivers, a known high-risk group, while the Kenyan study suggests that rates of HIV infection are even slightly higher for fisher-folk than for sex workers (Vorster 2006). Work done on the subject in Tanzania, Zambia, South Africa and Benin also indicates that many fishing communities have high HIV prevalence rates (Tabajuka 1997; Ainsworth and Semai 2000; Sahn and Stifel 2003; Allison and Seeley 2004). According to Hemrich and Topouzis (2000: 90):

Vulnerability of fisheries livelihoods systems to HIV/AIDS [...] stems from the socioeconomic dynamics of the fisheries trade and lifestyle, and in particular the fishermen's high mobility, their long absences from home and their cash incomes which are then often spent in the trading centres on casual sex and alcohol. Vulnerability extends to their casual or semi-casual sex partners and to their wives at home.

Allison and Seeley (2004) point at the physical risks and economic uncertainties of making a living from fishing and the social and political marginalization of many fishing communities. In addition, they mention the existence of strongly gendered social and economic roles, with women often found in less profitable trading activities where 'sex for fish' transactions are common, and the existence of a masculine sub-culture among fishermen that encourages or condones having multiple partners (Allison and Seeley 2004). Susceptibility to HIV infection is determined by complex combinations of biological, social, cultural and economic factors. In Ibaka, just as in many other fishing communities in Africa, a number of lifestyle factors

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suggest that heterosexual sex is the prevalent channel, out of the main ways in which HIV can be transmitted. According to Kissling et al. (2005), Béné et al. (2005), Allison and Seeley (2004) and Hemrich and Topouzis (2000), several known HIV risk factors converge around fishing activities. The risk factors identified that could be observed in Ibaka include the following:

- Fishermen tend to fall in the age group most vulnerable to sexually transmitted diseases (15 - 35 years);
- Many people involved in fishing or associated activities are mobile or migratory and therefore less constrained by family influences and social structures at home;
- It has been suggested that since fishing itself is a risky profession, a culture of risk denial may extend to other dimensions of fishermen's lives;
- The low status of fishing as an occupation may cause "exaggerated or 'oppositional' forms of masculinity that challenge norms [...] in 'mainstream' society...[including] the expectation of multiple sex partners" (Kissling et al. 2005:);
- Cash income, poverty, irregular working hours and being away from home places fishermen in a group with disposable income and time off (when not fishing), that favours the consumption of alcohol and prostitution; the corollary of this is that low-income women are drawn to fish landings sites or ports precisely because of the opportunities to sell food, alcohol or sex;
- The risk of exposure to HIV increases when a small number of women have unprotected sex with a larger number of men, or vice versa (Garnett and Anderson 1996; Loevinsohn and Gillespie 2003);
- In places where women compete intensely for the fish catch (for small-scale processing and local trade), "fish for sex" is not uncommon;
- Gender inequality, compounded by poverty that puts women at risk of exploitation, makes it difficult for women to insist on condom use; and
- Fishing communities have limited access to sexual health services.

Allison and Seeley (2004) also caution against stereotyping, pointing out that not all fisher folk engage in risky behaviour, and that fisher-folk in developing countries comprise "mixtures of migrants of varying duration and resident farmer-fishers" (Allison and Seeley 2004: 220) and that other studies (Neiland and Béné 2004) support an alternative image of fishermen as hard-working and forward-thinking (which can, of course, co-exist with the above characteristics). Nevertheless, they conclude that "a high-risk subculture exists among some important fisheries in developing countries (e.g. the Gulf of Thailand, the African Great Lakes and West African coastal fisheries)" (Neiland and Béné 2004: 224).

The vulnerability of fishing communities to HIV and AIDS has been widely overlooked by health organizations. This accounts for these communities not receiving the prevention, care and treatment programmes they need, which can have devastating impacts. According to FAO (2005), the World Health Organization (WHO) guidelines do not target fishing communities for prevention, care and mitigation programmes, and the guidelines for the fishery sector from the International Labour Organization (ILO) do not address this issue either. Existing initiatives relating to HIV/AIDS in fishing communities are mostly small-scale and fragmented, often working with isolated communities. However, research by the Food and

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Agriculture Organization's HIV/AIDS Programme and Sustainable Fisheries Livelihoods Programme (SFLP) has examined the impacts of HIV/AIDS on the fisheries sector and evaluated current efforts to address these (FAO 2005). The research confirmed the high prevalence in fishing communities, due to factors listed earlier. It concluded that HIV and AIDS cause a decline in labour productivity, due to deaths and illness limiting the number of available workers, and that the associated loss of income for households, combined with increased medical costs, forces many people to sell their fishing equipment, resulting in a further decline in productivity. The death of fishermen also means a loss of expertise in both the local and global fishing sector.

According to the FAO studies, reducing the impact of HIV and AIDS in fishing communities will therefore require increased efforts and cooperation between governments, NGOs, and the private sector. Priorities should include better access to health care and critical medicines, improved education about HIV causes, information on nutritional needs of infected persons, and support programmes for communities affected by the disease. This will require significant financial commitments from organizations with the resources to make a difference. A number of policy recommendations were formulated, including about raising awareness in fishing communities, improving access to health services, and provide 'safety net' funds.

7.9 Conclusion

Performances in both the economic and domestic domains by the women fish traders are important for maintaining sustainable livelihoods in Ibaka. Otherwise the women will remain in a perpetual state of struggling for survival. Performance in the economic domain was determined by the net income earned by the fish traders, which translates into profit made. It is influenced by several factors, both directly and indirectly. The factors influencing performance directly and significantly include the amount of working capital used, the ability to obtain regular supply of fish at the beach and maintain regular customers in the market, and social capital. Other parameters which influence performance include age, marital status, education, husband's occupation, years of experience in the trade, and the number of hours spent on economic activities. The parameters used to adjudge performance in the domestic domain included the ability to educate the children, the type of house, type of energy used in cooking and lighting, and number of hours spent on domestic activities. The study shows that the big fish traders perform better than the crayfish and *bonga* traders, in both domains. In the economic domain the conclusion is based on parameters which include the amount of working capital they were able to mobilize and level of income, which influenced their ability to save and their assets base, among others.

Results of the study also show that good performance in the economic domain enhances performance in the domestic domain, because those fish traders who could mobilise more working capital and were able to earn sufficiently high incomes, were also able to educate their children conveniently, and take proper care of themselves and other members of their households. Sufficient incomes also engendered the ownership of assets and savings, the ability to own or live in permanent houses, and the purchase and use of generating sets for lighting and kerosene stoves for cooking in the households.

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In order to perform well, the Ibaka women have to overcome many challenges. These include institutional and cultural challenges that militate against successful livelihoods in Ibaka at both the economic and household levels over a long period. The institutional challenges include lack of infrastructural facilities, marketing, financial and labour availability problems. The cultural challenges include those relating to beliefs and taboos, ethnicity, gender norms and values, and family life. The women fish traders adopt diverse strategies in a bid to overcome these challenges.

The strategies to overcome the institutional challenges include the use of social capital to substitute financial or physical capital, the use of under-aged children as labour due to inability to pay for labour, the use of female children as mother-substitutes in the homes, buying fish on credit in the absence of financial services, borrowing from friends, relations, *osusu* groups and/or money lenders, inter-marriage, and accumulating social capital through the churches, professional associations and community based social clubs. The women have also resorted to buying untreated water from the commercially operated boreholes, patronising traditional medical practitioners, patent medicine stores, and the churches, in the absence of adequate water provision and health facilities in the community.

To adapt to the cultural challenges the women fish traders use many strategies. The periods of forced holidays are used in cultivating social capital, developing their networks, conducting their economic activities from home, and taking care of personal matters, while the “strangers” touch base with their extended family members in their home communities. To overcome the challenges of polygamy and patriarchy they use diplomacy, lobby their in-laws to gain favours from them and their husbands, and strive to cultivate strong social capital to enable them to earn sufficient incomes to sustain their households and educate their children. To achieve economic independence they have also adopted a non-pooling culture, and in the process have achieved some level of agency and autonomy. On the issue of using expensive mangrove wood in smoking fish they have devised a new smoking method by which they utilize other cheap wood species for initial smoking, and using the mangrove for the final smoking process, in order to reduce the cost of the smoking process. In order to integrate quickly, the foreigners and “strangers” among them either join church organisations, social clubs, or inter-marry with the indigenes of Ibaka.

The location of Ibaka as a trading outpost between Nigeria, Cameroon, the Central African Republic and Equatorial Guinea, as well as its being a dynamic fishing community and commercial centre located on the coast, endows it with certain characteristics that would make its inhabitants highly susceptible to HIV infection. The lifestyle of fisher-folk in Ibaka is similar to those of fishing communities described in other African countries, and high incidences have been reported even in inland fishing communities that are not quite as exposed to international and national traffic as Ibaka is. However, even though the women fish traders in Ibaka claimed they had never seen an AIDS patient, they acknowledged learning about the presence of the disease through the radio and television, the churches, the community health centre located in Enwang, the Local Government Headquarters and a neighbouring community, friends, relations and some NGOs. Information on the prevalence rate of HIV and AIDS in Ibaka is not yet available probably because of its remote location, and the fact that the Nigerian government, not yet recognizing fishing communities as one of the high node areas for the spread of the disease, has not provided testing facilities in the area. Information obtained from

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the literature points to the probability of Ibaka population being highly susceptible to the disease.

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Conclusions and discussion

In this chapter, I present the main conclusions and discussions of the findings from the study. In the first part I answer the research questions that the study sought to answer. This is followed by a discussion of the results, while the second part addresses the methodological and theoretical concerns emerging from the study. The policy implications of the study to the fisheries sector are also discussed, and areas for future research are suggested.

8.1 Answering the research questions

8.1.1 The resources, activities and livelihood strategies of the women fish traders in Ibaka

Resources in this study refer to the human, social, economic and the natural resources available and accessible for household livelihoods sustenance in Ibaka. The main resource available and accessible to the households was the labour of the women fish traders themselves and the female members of their families. Family ties, churches, professional associations, social clubs, *osusu* groups and trade networks provided the social capital, which is crucial for success in the fish trade. The sea provided the economic resource, the different species of fish on which the livelihoods of almost all the households in Ibaka depended, either directly or indirectly. The physical resources included equipments such as boats, nets, outboard engines, landed properties, houses, and mobile phones. Human capital consisted of the women's own trading, language and educational skills, and years of experience.

Family labour is basically the main source of labour in the fish processing and trading business. Results of the study show that 96 percent of the households had family members participating in it. The fish traders used their own personal handling, processing, language and trading skills in their business. Skilled processors with very low or no working capital also offered their labour to medium and large scale fish traders. Some of the traders who were engaged in subsistence farming borrowed land from their relations or took it on lease from the owners for crop production. Those with sufficient years of education also deployed their educational skills to their advantage. The gendered nature of the fish trade and the fact that it requires professional skills ensures that labour is difficult to acquire.

There is a strong evidence of a gender division of labour in the artisanal fisheries sector in Ibaka. Men go to sea to catch fish while women process and sell the fish. The gendered division of labour is governed by the cultural norms and taboos observed in the community. For example it is believed in Ibaka that if a woman enters a fishing boat, it will not catch any fish. Women are thus actually barred from entering a fishing boat. Similar cases were observed in other parts of Nigeria by Aronson (1984) who noted that in Yoruba and Igbo societies, women and men often desired to keep their artistic domains separate. Through such

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taboos and other means of social avoidances the lines of division are kept intact. Taboos which prevent women from doing men's wood-carving and ironwork are often heard of, as well as taboos that prevent men from entering arts dominated by women. For example, weaving in the Yoruba town of Oyo and the Igbo town of Akwete is strictly a woman's domain, and it is believed that men who attempt weaving will become impotent.

Very few women fish traders possessed tangible assets; 76 percent of the women sampled reported possessing no assets. Out of the remaining 24 percent who possessed some form of assets, 14 percent owned equipment while 10 percent reported owning a piece of land or a house. Only large scale traders with higher incomes were able to acquire equipments such as outboard engines, fishing and transport boats, and other assets such as land, houses, generators, deep freezers, market stalls as well as fish trade titles. Market assets such as stalls and fish trading titles are trade group and location specific, because those traders who inherit the *bonga* trade titles from their mothers continue in the *bonga* trade in order to realize full value. The titles are also not necessarily transferable to other locations. The big fish group reported more women with assets (43.3%) than the *bonga* (7.5%) and the crayfish group (26.7). Financial assets such as savings were also owned by fish traders, even though the *bonga* group had the lowest number of savers (37.5%) compared to the two other groups (60% for big fish and 66.7% for crayfish). The savings were lodged either in banks, *osusu* groups, or in bottles buried underground.

The women's main source of income is the processing and trading in fish. Other sources of income identified included petty trading, dressmaking, food vending, hair dressing, weaving of thatch and baskets, subsistent farming, providing labour, leasing of market sheds, transport boats, outboard engines and storage facilities to others. During the planting season most of the women make time to plant cassava and vegetables for household consumption. All the other activities are mostly carried out simultaneously with the fisheries activities. Seasonality affects incomes; the women fish traders make higher incomes during the dry, peak season and lower incomes during the lean season, when heavy rainfall, storms, flooding and "high waters" ensure that only the brave venture into the sea. This causes much reduced supply, and therefore high prices at the beach. The traders in the big fish group had higher incomes than those in the *bonga* and crayfish groups, because they were able to mobilize more working capital for their trade.

Social capital played a significant role in the women's access to resources and acquisition of customers to buy their fish and clients to supply fish to them. Traders with good connections with fish mammies or fishermen obtained fish from them for sale without costs. Those who also had connections with rich friends, relations or husbands were able to access reasonable amounts of working capital. Having connections with rich *bonga* traders in Ibaka means access to employment for the poor fish processors and traders. Furthermore, connections with the several churches located in Ibaka, especially the Apostolic Church, *osusu* groups, professional organisations, and social groups ensured moral support, financial support for the business, assistance during celebrations and burial ceremonies of kin and the women themselves. Social status, position, ethnicity and level of education appeared to influence the ability to access state, institutional or local resources.

Women fish traders typically pursued three types of livelihood strategies in Ibaka: (i) processing and selling *bonga* (*Ethmalosa* species), (ii) trading in fresh big fish (barracuda,

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shiny nose, red snapper, and catfish); or trading in smoked crayfish (*palaemon* species). Despite different ethnic origins and contextual differences between and within fish trade groups, the fact that they live in the same environment and face similar challenges explains why they more or less pursue similar activities and employ similar strategies. Empirical data clearly shows evidence of diversification. Most of the fish traders reported diversifying into activities as diverse as equipment leasing, petty trading, subsistence farming, fashion designing, beauty salon business, money lending, leasing of sheds in the market and running a *bukka* (canteen). The large and medium scale traders diversified as insurance against the hazards of the fish business, using extra incomes derived from the fish trade, while the low income, small scale traders diversified as a survival strategy, looking for extra incomes to augment their meager incomes from the fish trade. Diversification strategies employed by the small scale, poor fish traders (subsistence farming, casual labouring, overdependence on social capital) reflect a lack of alternative options rather than an initiative to capitalize on investment opportunities as is the case with the large and some middle scale traders.

By virtue of their location and concentration on an isolated, degraded, fragile and risky environment such as Ibaka, the livelihoods of the women fish traders are even more vulnerable than of other rural populations. Their gender identities also make them especially vulnerable because of entitlements failures, lack of access to the specific resources necessary for success in the fish trade, defenselessness in a patriarchal system, and insecurity arising from polygamous marriages. Also, inherent factors and processes such as disease outbreaks, unpredictable weather conditions, unstable market prices, seasonality, diminishing social support networks and poor infrastructural facilities increase their vulnerability in the given biophysical environment. Individual and household characteristics such as age, sex, education, health status, position in the household, income, asset ownership, and dependency ratio are linked to social vulnerability. Conflicts between the Nigerian and Camerounian governments exposed the women to a higher state of insecurity, while recurrent fire incidents are a regular source of shock in the community. These all make the fish trade a very risky business and account for the urgent desire expressed by the women fish traders in getting their daughters sufficiently educated so they can get jobs and stay out of the fishing community. The prevalence of HIV and AIDS in Nigeria has made many households increasingly vulnerable. HIV and AIDS are reported to make people vulnerable through reduced productivity, capacities and opportunities. AIDS strips individuals, households, networks and communities of different forms of capital thus reducing their future capacity to cope with other shocks (cf. Niehof et al. 2010).

8.1.2 Factors influencing the livelihood strategies adopted by the women fish traders

The strategies adopted by the women traders are affected by factors such as age, educational status, number and ages of children, years of experience, and working capital available for the trade. Younger traders try to acquire other skills and formal education to enable them diversify, while the older women concentrate on earning higher incomes through developing their social capital, expanding their networks and making better business connections, to enable them diversify, educate their children and secure their livelihoods.

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The starters depend on their husband's, or mother's networks and social capital while trying to develop their own. More educated women participate in the more lucrative and better organized big fish trade, and deploy their profits into other tangible economic activities, while most of the less educated women end up in the *bonga* and crayfish trade, with lower margins and higher risk. This is probably because the big fish trade requires more capital which can more easily be raised by a literate person. It is also more complicated and requires resourcefulness and innovation, especially during the peak season.

Women with grown-up children could afford to be away from home for longer periods because the female children help take care of the household, whereas women with younger children do business as close to home as possible. The former have more time for economic activities than the latter and mobilize more income for the household. Older female children are deployed into the trade. The more experienced, older women have a wider network and more social capital, acquired over the years and used daily for the trade. They know the intricacies of the trade, and generally earn higher incomes, while the young and less experienced traders are learning on the job and working at acquiring theirs while trading, and consequently, earn less income.

Capital outlay has a great influence on the strategies adopted because higher working capital means higher profits, which can be invested in other economic activities. A large scale crayfish trader, for example, was able to buy sewing machines and set up a dress making shop at Ibaka, while owning a stall in the fish market where she trades, and a storehouse where others store their unsold crayfish bags for a fee at the end of each day. Similarly, another large scale big fish trader owned her own fishing boat and engines and hired fishermen to fish for her. She also owned a transport boat, bought from the proceeds of her fish trade, which she leased out. Her three children are all in tertiary institutions and she had just finished a degree programme herself. Out of the 100 traders sampled, fifteen could be regarded as successful, judging from their working capital and assets owned. However, those regarded as very successful were very few. They were not included in the 100 women sampled during the survey because their data would have caused a distortion of the analysis. They were selected for the case studies in order to fully capture their success stories.

8.1.3 Institutional and cultural challenges faced by the women fish traders and the strategies used in adapting to these challenges

The study illustrates many institutional challenges faced by the women fish traders in Ibaka. These include lack of physical, financial, processing and marketing infrastructure, lack of institutional support and information, and the high cost of labour. The lack of financial assistance and insurance against risks has resulted in their buying and selling fish on credit where possible, obtaining loans from friends, relations, *osusu* groups and money lenders in the community. The lack of adequate and efficient processing and storage facilities have contributed to the continuous struggle by the fish traders to maintain the fish quality through all kinds of strategies, including smoking in open fires, using the *bandas* and *chorkor* smokers and storage of unsold fresh fish in wooden fish boxes packed with ice, or incurring extra costs to ferry the fish to a cold room facility 45 km away, pending when they are able to sell it. Lack

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of government or NGO support and the women's harassment by local government officials due to their inability to organize a strong union, has created a situation of the survival of the fittest in the community. However, even though the recent introduction of the cell phone technology has enabled the women fish traders to collect information from the fishermen at sea about the quantities of fish to expect, the species caught (for big fish), and the approximate landing times, and to convey the same information to their friends and customers in the cities, it has not solved the problem of information asymmetry. Neither has it significantly reduced transaction costs.

The lack of electricity or potable water and the rudimentary educational and health facilities pose serious problems to the women and their children. Most of the women fish traders (87%) substituted hurricane or bush lanterns and candles for electricity, which contributed to the frequent fire incidents in the community. A few of them (13%) were able to procure generating sets for lighting their houses. For water for their households and fish processing activities, the women resorted to using shallow wells and untreated borehole water, which has implications for their health status and that of their children. Those who could afford it sent their children to private schools in the community, while the rest used the single public primary and secondary schools in Ibaka or sent their grown up children to schools outside of Ibaka. The use of patent medicine stores, traditional medical practitioners and the churches in solving health-related problems has been adopted by most of the fish traders. Only those with higher incomes patronise the government owned health centre and privately owned medical clinics in Ibaka, which most people consider too expensive.

There is a problem of lack of help in the household and in the fisheries business because most of the women are migrants and far away from their extended family members who could have helped provide labour. Moreover, the fish business requires skilled labour and even if the family members were available, they would have to be sufficiently skilled to be able to assist meaningfully. In order to solve the problem of the high cost of labour therefore, young female children and other close female relations are deployed into the fish trading business as assistants by the women fish traders. The period they spend assisting their mothers, aunties or female relations also serve as their apprenticeship period before starting their own trade before or immediately after marriage. The young women marry early and when they do, have to start their own fish trading businesses in order to maintain their families, which results in the perpetual shortage of labour for the not-so-wealthy. The wealthy large and medium scale traders can afford, and do pay for hired labour.

The cultural challenges faced by the women fish traders include those related to beliefs and taboos, ethnicity, norms, values and family life. These are challenges of not carrying out fishing or trading activities on Sunday, other Christian holidays, or on days set aside for traditional rites and ceremonies, and the belief of having to use only costly mangrove (*Rhizophora* species) wood for smoking fish. The forced holidays implies loss of working days at the beach which results in the loss of much needed income, especially in the peak season. In order to minimize their losses the women fish traders resort to working from home during these periods. Those days are also used for club and church activities, other meetings, networking, catching up on their personal lives by visiting relations at their permanent villages and countries, attending to their social responsibilities, ceremonies, cultivating their social capital in the process.

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Because of deforestation of the mangrove forests due to years of fish smoking, and with the devastating effects of oil spillages, the forests have receded and it now takes a long journey to get firewood that hitherto was obtained near the fishing communities. This has raised the price of firewood correspondingly, making fish smoking an expensive business. Smoking with open fires in their kitchens and using the *banda* is also not economical and efficient, and wastes firewood apart from taking a longer time to dry the fish. The women have therefore adopted a new smoking procedure in order to reduce the cost of smoking. They smoke and dry the fish using cheaper species of firewood and finish the final smoking process using the mangrove firewood. Through this process they have successfully reduced the cost of processing fish. They also believe that the smoked fish tastes the same way as when smoked through with mangrove wood only.

Resilience in the face of challenges

In spite of all the challenges faced by the women in Ibaka, they have kept their strong position in the fish marketing business. Many of them have been able to maintain their households and educate their children while a few have even crossed the gender lines and gone ahead to own transport and fishing boats, employing men to fish for them. Many *bonga* fishermen who own beach seine nets are now dependent on the fish mummies for credit to acquire fishing inputs in order to expand their fishing businesses and improve their incomes.

The resilience of the women professionals and their survival in the fisheries sector can be explained through the rigid and gendered division of labour. This is backed by the determination of the women to become independent economically and overcome the cultural biases imposed through patriarchy, polygamy and discriminatory inheritance laws. Also, there is the incentive of being able to take care of themselves and their children, gain some power, agency and autonomy. The realization that men depend on the women to dispose of their fish catches, giving the fish economic value, further strengthens the position of the fish traders in the fishery economy of Ibaka. This also re-enforces the reciprocity between them, because while the men depend on the women for credit and for giving economic value to the fish caught, women depend on the men for the regular supply of the fish they trade on to generate their incomes.

8.1.4 Performance of the women fish traders in the economic and domestic domains and the inter-relationship between performance in the two domains

Factors that determine performance of the women fish traders in the economic domain are years of experience, skills acquired, the structure and sources of working capital, social capital, resource utilisation and innovation.

Performance in the economic domain

The main indicator used when the performance of the fish traders in the economic domain is considered is the profit made from the trade over a given period, which is determined by the

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income levels. Reasonable profits can be saved or used for diversification into other profitable business or the acquisition of assets. In assessing the women's performance, the nature and structure of the fish market in Ibaka was also taken into consideration.

There is a significant difference in the years of experience between the three fish trade groups. The traders in the big fish group – who are older – have more years of experience than members of the *bonga* and crayfish groups. The life histories confirmed the fact that the older women fish traders with more years of experience had more network connections and social capital, higher levels of trust from customers and clients, better access to resources, better opportunities at organizing more than one source of working capital, and better skills. These attributes led to better access to resources such as credit, better terms of trade, and higher liquidity and profitability, which all engender good performance in the fish trade. This culminated in the ownership of assets, savings and the diversification into other profitable ventures.

Skills were acquired right from their youth during the period of apprenticeship. Specialised skills are required in the trade, including fish handling and processing skills, smoking skills, calculating, bargaining and trading skills, as well as a good knowledge of the language of the trade. The amount of working capital used is one of the important determinants of success in the fish trade. Friends, relations, *osusu* groups, and money lenders were sources of working capital. There were differences in the amounts of working capital used by the traders from the different groups, with the big fish traders having the highest amounts and the crayfish traders the least. While a few women had reasonable amounts of working capital, some women in the *bonga* group had none to start with and were depending on the fish mummies to give them fish on credit. None of the fish traders acknowledged having sufficient working capital for the trade despite the fact that a few of the women were operating on a large scale and making an income of over N50,000 per week.

Social capital proved to be a very important determinant of success in the fish trade business because it determined the level of networking of the fish trader and ensured good supply of fish from the beach and regular customers for the marketing of the fresh or smoked fish. Apart from the fish from the sea, the resources available to the fish traders were mostly personal and therefore limited. The cell phones proved to be very useful in the marketing of fish and were mostly used by the medium and large scale traders in expanding their reach and advancing their trade.

The amount of profit made in the fish trade determines success and performance in the trade and this is determined by the level of income earned. The level of income earned was determined by the amount of working capital used, the networking and other skills acquired, and the turnover. Seasonality is a controlling factor in profitability because it determines the quantity of fish landed at any period of the year. The results show that while there is a variation between the incomes earned by members of the *bonga* and crayfish groups, the difference is not statistically significant. However, the income earned by the big fish traders was significantly higher than of the *bonga* and crayfish groups. This is reflected also in the fact that more members of the group owned equipment, land, houses and savings than the members of the other groups. They are also more educated, older, more experienced, and use higher amounts of working capital in the fish trade

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Economic importance of the *bonga* fisheries

The fisheries resources in Ibaka include several fish species of economic importance such as the *bonga* (*Ethmalosa fimbriata*), big fish species including red snappers, barracudas, catfishes and shiny nose, and crayfish. However, among the fish species produced and traded on by women in Ibaka, the *bonga* is the most valuable species for the fisheries. It drives the economy of Ibaka and provides livelihoods for hundreds of fishermen, fish processors and traders. The firewood sellers, barrow boys, owners of boreholes, shallow well, and vendors of food, fishing inputs and equipment, and petty traders are also not left out of the economy generated by the *bonga* fishery. This pelagic species, landed in large quantities in Ibaka and its environs reaches a large segment of the rural population and the urban poor who are the main target groups for nutritional improvement within the national food security policy of Nigeria. It is utilized mostly in the smoked and dried form. However, the smoking techniques used in Ibaka cannot be said to be very convenient, efficient and cost effective. The need for the adoption of the improved *chorkor* oven from The Gambia as a more suitable technology in *bonga* smoking in Ibaka cannot therefore be overemphasized; it would be the most appropriate technology. The provision of a better working environment would also go a long way in sustaining the women's livelihoods.

Ibaka women and entrepreneurship

Ibaka women's conversion of profits made from the fish trade into ownership of fishing and transportation boats reflects true entrepreneurship. The life histories show that relations to men by marriage or kinship are important channels of conversion of social into financial capital for the fish traders who aim at entering the business. Using new and innovative ways of finding new or acquiring more customers and accumulating capital is also entrepreneurial. However, there is far less risk, both socially and economically, in expanding the scope in the trade and climbing in the female market hierarchy than in investing in a male domain. For example, a woman fish trader who moves from being an ordinary fish trader to becoming a fish mammy as well faces little or no risk compared to one who ventures into the male domain of acquiring a boat and hiring men to fish for her. Green and Cohen (1995) point out that when women take up leadership positions in a male dominated area, this may in itself be regarded as an entrepreneurial activity, even if the activity is not innovative in other ways. The risks involved in the straddling of two domains here, which the Ibaka women see as most difficult to adapt to, are often more personal and psychological than financial and physical. In the life histories, some of the medium and large scale traders like MH, the large scale big fish trader and chief (Case 5); MA, the large scale crayfish trader (Case 9); MM, the fish mammy (Case 4); SG, the medium scale big fish trader (Case 7) and SR, the medium scale crayfish trader (Case 10) in Ibaka exhibit entrepreneurial behaviour and succeed at capital accumulation for diversification and sustenance of their households, whereas the struggling small-scale traders like MB, the *bonga* trader (Case 3) and MA, the big fish trader (Case 8), represent the actual status of a greater majority of the fish traders.

The Ibaka fish market

The fish market in Ibaka provides the venue for the generation of livelihoods for the majority of the women in Ibaka and its neighbouring communities. It operates like most rural food markets in Nigeria and, with its characteristic lack of infrastructural facilities, lack of access to information and non-existent line of communication between the women fish traders and the consumers, the traders have been literally operating without any supporting structures. The provision of an improved communication system, infrastructural facilities, credit systems and adequate information would therefore reduce the transaction costs and make for a better coordination mechanism in the market (cf. Douma and Schreuder 2002). Participation is through kinship and marriage, and only women who possess specific skills, working capital, available networks and social capital, and belong to a certain culture, location and ethnicity can participate. Household structures, gender division of labour, marriage, residence and inheritance patterns also determine participation. However, in the absence of functioning economic institutions and with several cultural barriers to contend with, the fish trade depends on social networking and social capital, to facilitate its functioning. Sources of social capital include kin, neighbours, friends, matron-client relationships, mutual trust, reputation, *osusu* groups, social clubs and associations, norms and values, churches, and networks (see also Udong et al. 2009).

The Ibaka market is not supported by a well-functioning credit market as well as other important institutions (for example the judicial system). It does not also have homogenous or standardised products, many buyers and sellers, market transparency, and freedom of entry and exit. It can therefore be referred to as an imperfect market, even though as a rural market dealing with fish as a single commodity. Using the various types and degrees of market imperfections distinguished in literature by Nazneen et al. (2007) the Ibaka fish market possesses characteristics which qualify it in varying compositions as a missing market, thin market, incomplete market or interlocked market.

Performance in the domestic domain

The fish traders' performance in the domestic domain is analysed using variables such as the number of children in school, the nature of housing, the sources of energy used for cooking and lighting, and access to water and health facilities.

Due to their inability to attend school or finish their education, most of the women fish traders were anxious to put their children through school so they would not end up as fish traders, like them. Getting an education for them would enable their daughters to get jobs out of Ibaka and do better for themselves and their children. They expressed their dislike for the fish trade and wished their daughters would not get involved in it. The big fish traders had more children in school than the *bonga* and crayfish groups, while the *bonga* group had the least number of members with children in school, perhaps because of the labour intensive nature of the *bonga* business and the fact that the children were fully involved or the trader could not afford to pay the school fees.

More women from the big fish and crayfish groups were found occupying the more permanent houses further from the beach in Ibaka than the *bonga* traders. Results from the

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study show that the *bonga* trade employs more immigrants than the others, which explains why they are clustered in rented semi-permanent rooms at the beach. The quality of the permanent houses is obviously better than the semi-permanent ones and they are normally not affected by the frequent fire incidents. *Bonga* traders, living in the clustered environment near the beach, suffer most of the losses anytime there is a fire incident in Ibaka, apart from the petty traders, engine repairers, and other service providers at the beach.

Energy sources used for cooking in the household were firewood and kerosene. Medium and large scale traders from all the three groups were able to afford kerosene and the stoves used for cooking while the small scale traders cooked with firewood. Only large scale traders from all the groups, or those with well-to-do husbands were using generating sets to generate electricity for lighting their homes, in the absence of the public electric power. In the absence of public water source, the women fetched water from shallow wells and the river, or bought water from commercial boreholes. While the commercial borehole water was used for drinking, cooking and fish processing, water from the shallow wells or the river was used for household laundry.

Public health facilities were non-existent in Ibaka at the time of the study. The women fish traders with higher incomes therefore patronised private clinics within Ibaka, and visited the general hospital in Oron, 45 km away, for serious ailments. Others relied on the services of the patent medicine stores, traditional medicine practitioners, and the church to solve their health problems. The most commonly reported illnesses included malaria and typhoid. Malaria is endemic in the area, as in other parts of the country, while the high occurrence of typhoid is a result of the unhygienic environment occasioned by the water and sanitation problems that exist.

Inter-relationship between performances in the two domains

Results obtained from the study show that performance in both domains are inter-related because performance in the economic domain influences performance in the domestic domain positively and directly.

The women fish traders generally spent long hours on the fish trade, and much less time on domestic work. The *bonga* traders spent more time on economic activities than the big fish and crayfish traders because they have to process and smoke the *bonga* before carrying it to the market. The big fish traders sell their fish fresh, while the crayfish traders buy and sell crayfish that had already been smoked by the fishermen. The long hours spent on economic activities reduce the number of hours spent on domestic activities correspondingly. However, the time spent on domestic activities should not be equated with the time spent in the household, because after buying from the beach the economic activities continue in the households, especially for the *bonga* and big fish traders. All the cleaning and smoking of the *bonga* is done in the house and most of the women smoke the *bonga* in their kitchens, since they cannot afford a separate smoking house. On days of very good fish landings, the big fish women carry unsold fresh fish at the end of the day to their houses for cleaning and storage in ice boxes while trying to contact their customers on telephone for the evacuation of the fish. It is also pertinent to note that many household activities are carried out simultaneously with economic

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activities, resulting in overlaps. The actual hours spent in both domains were therefore difficult to estimate by the fish traders themselves.

The level of incomes earned from activities in the economic domain impact on the domestic domain directly. The small scale fish traders who earned fewer incomes were generally unable to feed themselves and their children properly, educate the children and take care of their households. Most of them also lived in semi-permanent houses, cooked with firewood and used the bush or hurricane lamp for lighting. The medium and large scale traders on the other hand, who earned higher incomes, were able to take care of their households, feed and educate their children, apart from acquiring equipments, land and houses, and diversifying into other profitable economic activities with the use of part of the incomes earned. The higher the disposable income the greater the chances of investments in improving the well-being of the households members, showing the inter-relationship between the two domains.

8.2 Positioning the findings from the study

The women fish traders move between, and coordinate, household and market-place activities in intriguing ways. The very participation of the women in the fish trade is determined in part by household structures, sexual division of labour, marriage, residence, and inheritance patterns. Household and market interact dialectically as kinship dynamics, gender ideologies, and household practices and economies are translated and transferred to the market. Meanwhile, market practices and economic principles become integral to the production of the household and the nature of the activities that take place within it (Clark 2001).

The information obtained from the case studies about the women fish traders' lives and economic activities in Ibaka matches those obtained from studies conducted by other researchers on women fish traders in coastal and riverine communities in Nigeria (Verstralen and Isebor 1996; Williams 1996; Alamu 2003), in Ghana (Overa 1993, 2003), in Indonesia (Niehof et al. 2005; Niehof 2007), and Vietnam (Pham 2004). The marketing and coping strategies utilized also resonate with those of other entrepreneurial women described in other studies (Clark 1994; Overa 2003; Seligman 2001; House-Midamba and Ekechi 1995). The results can thus be aligned in many ways, but first with the situation that emerges from the studies of female fisheries entrepreneurs in Ghana (Overa 1993, 2003). There are many similarities between the women fish traders in Ibaka and those in the artisanal fisheries of Ghana. In both situations the fish processing and marketing are entirely in the hands of women while the men just fish, and once ashore hand over the fish and rest. The trade systems for both locations are based on the trader's ability to establish relations of trust and a network of cooperating partners. One's success therefore largely depends on one's experience and reputation as a trustworthy person (Overa 1998).

Husbands and wives cooperate and extend credit to each other in the businesses, but in long-term projects or one's choice of trusted partners in fishing or the fish trade, women tend to focus more on their own matrilineal family than on spouses, because to invest too much in one's marriage is unwise. Husbands and wives thus keep and manage their incomes from the fishery and other economic activities separately. The women manage their money without any interference from anybody and consider themselves better at managing money and making

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investments than men. Successful fish traders take care of their households and invest in houses for their children and relatives, thereby enhancing their social as well as their economic positions. Through the recruitment of family labour the potential for expansion in fish processing and trade increases. There are ‘fish mummies’ and ‘matrons’ (Niehof 2007) who, apart from being large scale fish traders who extend credit to fishermen and other traders, have become canoe owners themselves, securing their fish supplies by hiring men to fish for them. By investing in canoes, outboard engines and new types of nets, and by hiring and managing male crew, these women transcend gender norms in the fisheries, though women are barred from entering boats because it would bring bad luck.

There are some notable differences between the women traders in the Ghanaian and Nigerian artisanal fisheries. The first one involves the method of disposal of the fish. While retailers travel to Ibaka to buy fish, the Ghanaian traders have to carry the fish to the cities to sell to their customers (Overa 2003). A more fundamental difference is that in Ghana the post-marital residence patterns are mostly bilocal, while in Nigeria residence patterns are predominantly virilocal. This means that whereas in Ghana the married daughter remains in her mother’s house after marriage, or rents her own separate apartment, but cooks for and sleeps with the husband in the evening, and leaves for her house in the morning, the norm in Nigeria is for the wife to move to the husband’s house and live with him, or live in accommodation provided by him. The implication is that in Ghana the husbands provide for their wives, children and his dinner by remitting ‘chop money’ (housekeeping allowance) regularly, while their Nigerian counterparts do not provide it, though they may bring fish, and regard the accommodation provided as enough to entitle them to the food cooked in the house. The other difference is that the fish traders in Ibaka diversified their economic activities either as an insurance against the uncertainties of the fish trade or out of desperation to make ends meet, while the Ghanaian fish traders did not, and faced their fish trade wholly.

Another way of positioning our findings is in regarding the women’s fish trading activities as ‘nursing mother work’, or providing “something to eat every day”, as described for women traders in Kumasi market in Ghana. Drawing from the work of Clark, the women’s fish trading activities can also be regarded as ‘nursing mother work’ (Clark 1994, 2001). Frequently, women enter the market as an extension of household tasks they perform as well as to make possible the economic survival of those households and, particularly to secure the survival of their children. While women are often socialized to contribute the largest share of their labour to the household in order to ensure children’s welfare, in many societies that work is not conceptualized as physical caretaking but rather as the economic maintenance of children. The rationale behind this categorization therefore, is that without the capacity to take care of her children financially, a women’s biological power of child bearing cannot be fully realized. Discussions about the implications of child rearing with the fish traders in Ibaka confirmed that, just like the Akan women in Ghana (Clark 1994), they consider the economic imperative of motherhood much more absolute than just the responsibility for physical care, which can be delegated with comparative ease and confidence. Describing the fish trade as ‘nursing mother work’ aptly fits the position of most fish traders in Ibaka who are struggling to feed, clothe and educate their children. The concept as used by Clark implies that it must be completely reliable, providing “something to eat every day”. The women fish traders in Ibaka greatly value the trade because it gives them the power to raise their children successfully,

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regardless of the fortunes or reliability of husbands and relatives. However, during the lean season the trade does not always bring regular income, which calls for savings mobilization and diversification during the peak season.

There is a large body of literature about the dominance of West African women in trade (Falola 1995; Ogbomo 1995; Ekechi 1995; Clark 1994). These studies show that through trade women have achieved a considerable measure of autonomy, agency and economic independence. Their strong economic base and guarantee of independent income is enhanced by the existing strict division of labour, reinforced by taboos that help stave off interference by their male counterparts and prevent men from encroaching on women's economic activities. Indeed, as portrayed in Ekechi's account, trading was of great importance to Igbo women of Nigeria even in colonial times. Basden (1966) underscored the significance of marketing to the Ibo women of Eastern Nigeria in his book, saying that trading was the central feature in the life of every Ibo woman because to be successful in trade in Iboland was the signal for generous congratulation through which a woman's worth was calculated. This affects her position and comfort and a man considers it in the choice of a wife. In many cases a husband's favour is bestowed or withheld largely according to the degree of his wife's success in the market.

Women and entrepreneurship

Women also dominate the fishing economy because of their hard work, skills, and entrepreneurial spirit, taking technological innovations (such as the adoption of the *banda* oven and the use of mobile phones) in their stride. Women are also considered to be more efficient, enterprising and effective in the trading business. Comparable factors determining the success of women traders are reported in the literature on Indonesia (Niehof 2007; Alexander 1998), Ghana (Clark 1994; Overa 2003) and Nigeria (Falola 1995; Ekechi 1995). In the case studies, women are portrayed as more prudent in the disposition of their incomes and men as more prone to using their money to marry more wives, squandering their money on women, drinking and other vices instead of taking care of their families or investing it in business. Therefore neither the Nigerian nor the Ghanaian women trust men with their money. Even while there is bilocality in the Ghanaian and virilocality in the Nigerian marriages, the women exhibit the same non-resource pooling behaviour in the household (Fakpohunda 1988; Clark 1994).

Several West African studies have suggested that a wife's decision not to pool her resources is rational in view of ensuring independence, averting risk or investing in indigenous insurance (Hanson 2004; Oppong 1981). Retaining full control of their personal earnings and property also ensures personal dignity, which requires an adult woman to be able to dispose of her own income, however modest, without explanation or permission from others. Norms for lineage financial contributions actually assume an independent income for women members. According to Ibaka women, and as Clark discovered in Ghana, a woman's gender identity depends on her financial independence as well as her fertility, just as a man's does. A woman without an income is considered not to be a real woman but a child or, more precisely, an idiot. As Aidoo (1970) succinctly puts it, in Ghanaian society, women themselves believe only two types of their species suffer: the sterile – that is those incapable of bearing children – and the foolish. By the latter they refer to women who depend solely on the husband for sustenance. As a positive ideal, this is shared not only by Ibaka fish traders and the Ashantes in Ghana in other

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occupations, but found very widely throughout West Africa (Clark 1994; Uchendu 1995; Ogbomo 1995; House-Midamba and Ekechi 1995).

In the view of Ibaka women, money should as much as possible be used to generate more money, with the exception of taking care of their children's feeding, healthcare and education, as well as the acquisition of land, houses and other tangible assets. These exceptions are significant because they reveal the motivation of successful traders and fish mammies to convert wealth and economic power into social status, which in Ibibio-land is acquired through the ownership of landed property, houses and the successful education of children up to university level. In fishing communities like Ibaka it is the norm for women to take care of, and educate their children, so that they can be successful in the future and reciprocate in their mother's old age.

Stringent government policies which resulted in food shortages in Nigeria during the implementation of Structural Adjustment Programmes from 1986 also turned the tide for Ibaka women. It forced the fish retailers in the cities to go looking for fish in the fishing communities, thus reversing the trend in the fish supply chain. The transportation costs of ferrying fish to the cities, which contributed significantly to their total costs was now transferred to the retailers and consumers, which resulted in increased incomes. The adoption of new technologies in the facilitation of their trade, such as the *chorkor* smoker, the mobile telephony introduced by government, and the *banda* introduced by the *Ilaje* colleagues, also demonstrate the women's innovativeness and determination to succeed.

The final point to consider is that in Ibaka boundaries are blurred between the household, family and business, and this strengthens the women's position because it enlarges their maneuvering space. Even though the women's role in Ibaka, as in Ghana and Indonesia, is grounded in the exclusive feminine domain of the hearth and the home, it is not confined to this because the women are not domesticated (cf. Clark 1994; Niehof 2007). Starting from the hearth, the feminine role of food provider extends beyond it to include the accumulation of wealth for the enhancement of the material, moral and spiritual well-being of the family. In their analyses of engendered entrepreneurship of market women in Ghana and fish traders in Indonesia, Clark (1994) and Niehof (2007) find the same phenomenon, namely that from the household, which is the social unit of greatest significance to women, the women can actively pursue household strengthening economic activities.

The distinction between the domestic and public domains was questioned by Brenner (1998) who described the domestic domain in Java as an "encompassing sphere". In the view of Dumont (1978), the word encompassing refers to a hierarchical situation where the encompassing becomes superior to the encompassed. If, as is the case in Ibaka, the domestic sphere encompasses the economic and social spheres, and the onshore fishery economy encompasses the actual fishing activity at sea, then in two respects the women seem to be more favoured in their entrepreneurship.

Studies of Yoruba women in colonial Nigeria also revealed that they were enterprising, calculating and shrewd, and were able to mobilize capital to enlarge their trading opportunities. They are reported as being independent, rejecting the stifling conditionalities of marriage, or at least overcoming the barriers that marriage and child rearing posed. Even the Muslim women of Northern Nigeria, despite all the limitations they face, are reported to have engaged in

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hidden trade in response to economic hardships imposed on their households by the Nigerian state (VerEecKe 1995).

Issues of categorization of fish traders

The account of women in Ibaka distinguishes three main groups of women among the traders, the wealthy, the not so wealthy and the struggling women. It should therefore not be read as if all women are all poor and struggling to make ends meet or all are wealthy and powerful. One of the major outcomes of the structural adjustment programmes, non-implementation of rural policies, and the top-down approach to development in Nigeria has been the widening gap between the haves and the have-nots (World Bank 2008). The question then is how gender differences relate to these socio-economic differences, how important the differences between the genders are in comparison to the differences between the different categories of women, or expressed differently, whether gender differences override all other forms of differences (Moore 1993: 195).

According to Niehof (2007), as a general rule, gender difference should not be privileged over other forms of differences, but in the case of Ibaka – as in that of the Madurese fishing community described by Niehof – the gender difference is so deeply embedded in a culturally and ecologically underpinned, gendered division of labour that it becomes all pervasive. Hence, the differences between the different categories of women fish traders are easily subsumed under gender differences (cf. Niehof 2007). Nevertheless, the differences in the socio-economic status within the group of Ibaka women fish traders cannot be ignored, and this leads us to issues such as the relationship between the wealthy, the not so wealthy and the poor women, motivations for diversification, location and ethnicity, institutional influences, and socio-economic mobility.

In Ibaka, women acknowledge and accept the differences among them to a large extent. Within the ‘matronage’ relationship, the parties involved know their station, their rights, obligations and entitlements. While traders may try to cheat and fish mammies may be greedy, they are all aware of their mutual dependence. They all know the unwritten rules of the game, even if they occasionally try to bend or circumvent them. Also, apart from their trading relationships, the better-off members do provide social security and moral support for the more vulnerable among them, while the matrons can always count on the support and services of their ‘wards’ if they have any social event such as a burial or a celebration in the family.

The motivation for diversification differed clearly between the well to do and the poor in Ibaka. While the rich diversified because they had extra income, and used it as an insurance against the vagaries of the fish trade, the poor diversified as a survival strategy, trying to earn sufficient income to enable them feed themselves and their families. The entitlements ascribed to ethnicity and location determined the ease with which one could have access to certain resources, the process and mode of diversification and made it easier for an indigene to diversify than for a migrant trader. As indigenes, Women’s Leader and the chief’s wife respectively, MH and SR (Cases 5 and 10) were able to acquire sheds at the market and own transportation boats which earns them extra income.

As for socio-economic mobility, the phenomenon that it is easier for the rich to become richer than for the poor to become rich applies in Ibaka as well. Household survey data

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shed more light on the economic stratification of households in Ibaka. Results from the case studies showed an important aspect to note, namely that to the small and medium traders and processors, successful traders and fish mummies are role models. They set the standards on which the small and medium traders base their aspirations and practices. Niehof (2007) describes the phenomenon in the economy of a fishing community in Madura, Indonesia, while Clark (1994) observed it in the market economy in Kumasi, Ghana. Ibaka women also seem to have profitable business links with the women in the hinterland who are increasingly active in the fishery economy. While about ten years ago, Ibaka women had to ferry their fish to the markets in the cities and women from the hinterland hardly played any role in the fishery scene, they have now acquired a place of their own in the stratified fishing economy, as middlemen in the fish value chain. They buy fish from Ibaka and transport them to markets in the cities, ensuring the distribution of the commodity to far flung consumers. Issues of locality and ethnicity also apply here. Most of the petty traders in Ibaka, the providers of labour to the fish processors, many small scale traders and providers of other services are not indigenes of Ibaka. A lot of them came to Ibaka from the hinterland out of desperation to earn a living and easily take the jobs not considered by the indigenes. This shows how gender intersects with other stratifying variables, while at the same time, in Ibaka the gender difference is the more encompassing one.

8.3 Methodological issues

This study used the household as the unit of analysis. However, while literature usually assumes a household to be male-headed and made up of a husband, wife, children and other dependants, most of the households in this study were either *de jure* or *de facto* female-headed, with children or relations, which therefore ascribed certain characteristics, other than the assumed, on them. Also, even though conventional households have been known as arena for cooperation and conflict, with members having different capabilities and access to resources, and where sometimes individual rather than household livelihood strategies are pursued, the concept of household remains relevant. Its relevance is illustrated in the way most of the household heads take care of their children and other members of the household, educating and socialising them and providing a sense of belonging, even in the absence of their fathers. The study also shows that household level factors seemed more important in influencing success in the fish trade and the vulnerability of the fish traders and their households than location-specific factors. However, consideration and appreciation of the different capabilities, interests, and needs of the women fish traders especially, and those of the different household members, are imperative for effective programming and policy design and intervention. While African culture assumes male headship of households, the peculiar fisherfolk culture operating in coastal communities in the Niger Delta such as Ibaka, engenders female headship, and with polygamy, patriarchy and gender discrimination, gender inequalities are entrenched in the system. Due to the predominance of polygamous marriages there were more female than male-headed households in Ibaka, which explains why most of the households involved in this study were female-headed.

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The livelihood framework was used in investigating the livelihood strategies of the women fish traders in Ibaka, the challenges they faced in both the economic and domestic domains and the way they responded to these challenges given the resources at their disposal. The framework proved useful at looking at livelihoods in a holistic manner. It facilitates the understanding that people's livelihoods are created and constantly constrained by a complex set of factors and processes that interact at different scales and levels. The limitations of the given framework are that it does not capture the dynamic nature and process dimensions of livelihoods. It is also rather biased towards the possession of tangible assets, without due consideration of intangible assets such as social relations, power, and claims, or the qualitative aspects of the emotional or psychological significance of assets, the capability of individuals or the cultural meanings attached to different assets (cf. Brons et al. 2007). The framework does also not facilitate the assessment of the changing quantity and quality of the tangible assets. Practically, it is difficult to capture the value attached to different assets by different individuals in the same terms and on the same scale for useful comparisons to be made. Incorporating the temporal dimension in the studies of the household dynamics and processes is also crucial to capture the dynamics of interactions between resources, assets and the households (Pennartz and Niehof 1999). A longitudinal study using both qualitative and quantitative methods of collecting data could have captured the dynamics of the interactions and the impacts on the households. It would also have provided more information on the socio-economic trends at the community level, the households' ability to adapt, and the complicated relationships involved. The study could therefore have benefitted from panel data, which could have added more value to the research findings. However, panel data sets are expensive to generate and take more time than this study had available. A longitudinal approach to the study would have included variables such as household composition, migration, incomes earned over several fishing seasons and assets portfolio.

At the household level the framework has been limited to the analysis of the internal dynamics such as gender and power relations, gender inequalities and the differential access to resources by household members. Several studies have shown that there are differences in access to, and the use of resources between households headed by male and female heads, and between men and women within the same household. Beyond the household, the issue to address social differentiation explicitly has not been taken into account. Finally, the framework assumes a positivist outlook on the way people make a living because not all livelihood strategies result in positive livelihood outcomes. It calls to question the notion of "sustainable" livelihoods as many households do struggle to survive and make a living when they, for example, experience stresses like the lean season, shocks like fire incidents, effects of climate change, HIV and AIDS, get trapped in a cycle of poverty, or experience increased vulnerability. Further research is therefore required in the development of a more comprehensive framework that can facilitate the capturing of various dimensions as discussed above.

A combination of research methods was used in this study to ensure the validity and reliability of the results. Household data which could be analysed quantitatively for use in facilitating comparisons between the three fish trade groups were collected using the survey method. This method is limited with regard to capturing the processes (see above). Through retrospective questioning, case studies, observations, and focus group discussions, an attempt

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was made to assess and understand processes through which institutional and cultural challenges influence livelihood generation. The combination of gender and livelihood analyses during the qualitative data collection and analysis illuminated the gendered nature of the fish trade and the gender division of labour within the coastal artisanal fisheries sector. The analysis in this study followed as much as possible both cross-sectional and comparative approaches. These enabled comparisons within and between the groups of characteristics that engender success in the fish trade and sustainable livelihood strategies. In short, livelihoods are complicated and multi-dimensional, making the analysis of interactions between different factors and processes in the environment, and between and within the households a challenge to investigate. However, results from this study provided insights into the processes that take place as women fish traders in Ibaka strive to make a living.

Studies in coastal artisanal fisheries are difficult to conduct due to the isolated nature of the fishing communities and their inaccessibility, especially in the Niger Delta area of Nigeria, which produces most of the artisanal fish species. This explains why studies on artisanal fisheries have been focused mostly on the fish, which can be obtained in the markets, rather than on the fisherfolk, who produce and sell the fish, and are resident in these remote communities. It also explains why obtaining reliable artisanal fisheries statistical data presents a challenge in the Niger Delta. Additionally, in remote areas like the Ibaka fishing community, the sudden appearance of an outsider, even though I knew a few women, raised questions and immediate suspicion. Asking questions on personal matters and on issues of trade and finance further complicated the matter. This may have affected some of the information collected negatively since there was insufficient time to live for several months in – and become a “member” of – the community.

8.4 Areas for future research and policy implications

Measuring the performance of the fish traders by using a proxy variable (income) does not give the full performance of a fish trader because several other factors make for performance such as access to social and working capital. Also, there is need to conduct a study that would be able to measure how performance is affected by taking into consideration these other variables, as well as taking environmental challenges into account. In conclusion, there is a need for a holistic, temporal, multi-disciplinary and multi-sectoral approach to deal with livelihoods vulnerability.

The results obtained were derived from intensive discussions, case studies, interviews and observations carried out among different categories of the different trade groups of the women fish traders studied in Ibaka, Niger Delta, Nigeria. Although it gives a picture of the strategies used by the fish traders to sustain their livelihoods, and the conditions in which they operate, future research – for example by the Nigerian Institute of Social and Economic Research (NISER), the Nigerian Institute of Oceanography and Marine Research (NIOMR) and the National Centre for Women’s Development should undertake similar and more holistic studies in Ibaka and other communities in Nigeria, especially those in the Niger Delta. Such studies would give a broader picture of the struggles of women trading in fish as well as other commodities, the conditions in which they operate, their challenges and adaptation strategies,

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and the outcomes. Some of the issues that would call for further research are elucidated in this section.

HIV and AIDS in fishing communities in Nigeria

One of the main findings of this study is that even though the prevalence of HIV and AIDS has been reported to be relatively high in fishing communities, there is scant information on the prevalence of the disease in fishing communities in Nigeria. Since the lifestyle of fisherfolk makes them susceptible, and it has been established that HIV and AIDS contribute to the vulnerability of households, there is an urgent need to study the prevalence of HIV among fisherfolk and impacts of AIDS in fishing communities in Nigeria.

The impact of climate change on coastal fishing communities in Nigeria

Climate change has been known to result in many environmental problems which could affect sustainable livelihoods strategies negatively in coastal fishing communities in Nigeria. These include flooding, coastal erosion, high waters, extension of the rainy season, prolonged *harmattan*, strong winds, and incessant storms on the high seas. While flooding and coastal erosion result in displacement of families living near the beach as their houses and properties are swept away by periodic floods, very high tides and fast currents, extended rainy season and *harmattan* periods result in low productivity of the fishery due to poor visibility, strong winds and storms. Evidence of fibreglass boats smashed on the concrete embankment during such storms were seen at Ibaka during this study. This resulted in the loss of livelihoods for all the families and households that depended on the boat for their source of income.

Migration

Fishing communities like Ibaka accommodate fisherfolk of different ethnic nationalities, including those from the international community. There is therefore the need to incorporate the ethnic dimension into similar researches in the future. Even though current attempts at assessing ethnicity using quantitative methods have been problematic, life history studies have been found to yield better results due to the rapport established during the interview process and the trust built between the interviewer and the researcher. The income levels of migrants' households could be compared with those of the indigenes, and the impacts of institutional and cultural constraints on the different groups' households could also be compared.

The impact of the oil and gas industry on the livelihoods in fishing communities

A lot has been said about the oil and gas industry and its impacts on the livelihoods of the communities in the Niger Delta of Nigeria. Several reports have been published from studies on its impact on the environment. However, an empirical study is yet to be conducted which documents the direct and indirect impacts of oil explorative activities on the livelihoods of households in the host communities where the oil is being drilled and associated gas flared. This would give a clear indication of the actual damage caused over time and the level of

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vulnerability of the women and children left behind in those communities, and enable appropriate policy options and strategies to be adopted in ameliorating the untold hardships suffered by these communities.

Measurement of performance

Since performances in both economic and domestic domains were measured as discreet indicators in this study based on proxy variables which were more suitable for oral (soft system) approaches, there is need for a quantitative and more composite approach towards the measurement of performance to obtain more concrete results. Due to the sensitive nature of the information required in determining performance, and the elusive nature of the respondents, true and reliable information was difficult to obtain.

Fish safety and establishment of quality standards

There have been concerns about the quality of fish landed in the Niger Delta, and other highly industrialised coastal communities in Nigeria. These have been about the presence of unhealthy levels of heavy metals such as lead and mercury in the fish tissue. Up till now there has been no attempt by the government to control the quality of fresh and processed fish landed and sold in markets all over Nigeria. Conclusive studies need to be carried out to establish the quality of fish landed along the Nigerian coast, most especially those caught around oil and gas installations where certain species of big fish congregate. Also, palatability and quality control tests need to be conducted to establish the tastes of fish smoked with different species of wood, and also the effect on people's health of the different species of firewood used in smoking the fish.

Studies on socio-economic activities of other women

Studies on the socio-economic activities of other women in the fishing communities who are not directly involved in the fisheries need to be conducted. This would enable the incomes of women fish traders to be compared with those of their counterparts in other trades or government employment, and the development of a standard for use in the comparison of monthly incomes earned by women fish traders with those of women trading in other goods, women service providers, school teachers, policewomen, and nursing assistants in the fishing communities. The study, apart from establishing how women in the fish trade fare economically against their counterparts in other professions in the community, would also help establish how women in fishing communities fare economically when compared with women in other rural communities, and with national level statistics. Their level of vulnerability compared with the other groups of women could also be established.

Longitudinal studies

A relatively un-explored aspect of gender and the economic process, particularly in the developing world, is the effect of institutional constraints on the women's work-life course and the ways it differentially shapes women's material realities over time. Longitudinal studies should be organised to obtain panel data on household livelihood strategies of the women traders in fish and other commodities, the challenges they face, their adaptation strategies and the outcomes. Livelihoods are formed in a historical context and they change over time. Those who are currently among the poorest and most vulnerable may not necessarily remain so in the future, and vice versa. For example a well-to-do *bonga* trader may become poor and vulnerable if all her fish, house, properties, *banda* and money are consumed in a single fire incident in the community.

Implications for policy and recommendations

This study has shown the livelihood strategies women fish traders adopt in Ibaka in order to sustain their livelihoods, what constraints they face in both the economic and domestic domains, and their adaptation strategies. Several constraints were identified which affect the women both in the economic and domestic spheres. These comprised those imposed by both the cultural and institutional environments in which they live and attempt to construct their livelihood. The cultural constraints are pervasive and entrenched through patriarchy, polygamy and deliberate gender discrimination, resulting in non-inheritance laws, lack of access to (ownership of) resources to guarantee sustainable livelihoods for most of the women fish traders and their households. However, even though access to resources has been found to go a long way in the development of successful livelihood strategies, it does not always automatically translate into improvements in empowerment and wellbeing because several other factors intervene. Institutional constraints, weak structures and lack of organisational capacity, also affect women's capacity to negotiate, their access to financial and marketing services, and infrastructural facilities, among others. These constraints affect their performance in both domains, irrespective of personal characteristics. However, these constraints are the result of historical processes which by far precede the period of this study. Policies and interventions should therefore not only address the immediate causes and effects of the constraints, such as providing finance, building processing and marketing facilities, providing electricity and water, building schools and health centres. They should also address the underlying causes of poverty and households vulnerability, for example tackling gender discrimination and patriarchy. In this section I present some policy recommendations that have emerged from the conclusions of the study.

Most rural communities in Nigeria are underdeveloped, lacking water, health facilities, and adequate educational and infrastructural facilities. Fishing communities are more remotely located and isolated than the upland rural communities and many of them do not have road links to the hinterland. Therefore, they need to be specifically targeted during the planning and implementation of rural development programmes by the local, state and national governments. Because by their peculiar nature and location, they have needs that are different from those of normal rural communities located upland.

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As expressed by most of the women during the case studies, education raises expectations about employment opportunities in the formal sector, a better life and livelihoods out the fishing community. For most of the women, their most urgent and important achievement in their lives would be to get both their male and female children educated so they could get jobs outside of Ibaka, and have nothing to do with the fishing community. It would therefore be expedient to extend the free and compulsory primary education policy of the Akwa Ibom State government for children of school age to isolated fishing communities like Ibaka, so that all school-age children can attend school instead of spending their time processing fish for their mothers or ferrying fish from the beach to different houses for cash.

Current financial policies of government do not take into consideration the cultural environment in which the policies are to be implemented and are gender blind. Where the prevailing culture makes it impossible for 50 percent of the Nigerian population to benefit from a policy that everyone is expected to benefit from, that policy is rendered ineffective and based on wrong assumptions. For example, collateral in the form of a house or landed property is required before a loan can be obtained from any commercial bank in Nigeria, irrespective of the gender of the applicant. However, in a culture where patriarchy reigns and women are not entitled to land or property, most women cannot source for the collateral required by the bank, in order to benefit from the loan facility. Also, in the absence of collateral some banks require a guarantor who owns property which can be used as collateral. According to the workings of patriarchy, a man would rather guarantee his son's loan than that of his unmarried daughter because she will marry and the proceeds will be taken to her husband's family. A husband would also think twice before guaranteeing a loan for his wife, even if he can afford it. His family would frown at his funding his wife, a "stranger", instead of funding his brothers, or keeping his property for his male children. Different and specific financial arrangements and services therefore need to be provided by the state and federal governments for women's businesses, with suitable and gender sensitive conditionalities.

Weak organizational structures at the community level contribute to women's inability to negotiate meaningfully with the authorities and secure the rights of their members. There is thus the necessity for the government to develop policies and strategies that would ensure the strengthening of the women's capacities to organize, while also strengthening the existing community groups such as the professional associations, self help groups, social clubs, *osusu* groups, and women's fellowships. This would enable them provide assistance needed by its members in a bid to sustain the livelihoods of their households, while also providing women the platform with which to negotiate with the local authorities and state government bodies.

In the light of all the cultural challenges encountered by the women fish traders and their sometimes unsuccessful attempts at adapting to them, it would be expedient for the Nigerian government to review its gender policy and implement the agreeable parts, while amending the Nigerian constitution in line with the provisions of the new policy. These actions together would give women a sense of belonging in the Federal Republic of Nigeria. Finally, the use of social capital has been known to be prominent where "tangible capitals" are either in short supply or inaccessible. Failure of government interventions or the inability of the various arms of government to provide facilities that would engender development in communities drive its members to depend on social capital for successful livelihood strategies. The government should therefore be more responsive to the needs of its citizens, especially the

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rural women most of whom shoulder the responsibilities of sustaining the livelihoods of their households in rural communities.

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Appendices

Appendix 1.

Household Instrument: Baseline survey for assessing the livelihood structure and strategies of the women fish traders in Ibaka.

1.0 HOUSEHOLD IDENTIFICATION

1.1 Household / Informant Number -----

1.2. Informant Name-----

1.3 Sex of Household Head: Male ----- Female -----

1.4 Residential Location ----- LGA-----

1.5 Business Location (Village)----- LGA-----

1.6 Type of Fish Marketed: 1 Bonga -----2 Big Fish-----3 Crayfish-----

1.7 Visit Dates:

1.7.1 1st Visit -----Next visit programmed for -----

1.7.2 2nd Visit ----- 1.7.3. Interview finalized on -----

Field Notes: Observations during the interview.

Interviewer's Name -----Signature-----Date -----

Name -----Signature -----Date-----

Appendices

2.0 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS.

(Apply to only Fish Marketing Women within the Household.)

- 2.1 Age-----
- 2.2 Marital Status-----
- 2.3 Husband's Occupation-----
- 2.4 Number of Children -----
- 2.5 Religion-----
- 2.6 Place of Origin-----
- 2.7 Number of years lived in Ibaka -----
- 2.8 Last place lived before Ibaka -----
- 2.9 How many years lived there-----
- 2.10 Type of Household: Male Headed----- Female Headed-----

2.5 Type of Fish Business:

- a. Processor and Seller of Bonga-----
- b. Wholesaler of Fresh Fish (Big Fish)-----
- c. Wholesaler of Crayfish -----
- d. Others (Specify)-----

2.6 Educational Status of Respondent:

- a. Primary School (No. of Years) -----
- b. Secondary School -----
- c. Vocational School after primary school (Specify) -----
- d. Vocational after secondary school (Specify)-----
- e. Tertiary Institution (Specify) -----
- f. Vocational, no formal education-----
- g. None -----

- 2.6.1 Can you read? English-----; Local language-----
- 2.6.2 Can you write? English-----; Local Language-----
- 2.6.3 Can you add and subtract figures? Yes-----; No-----

2.7 Educational Status of Children

- 2.7.1 Educational Status of Children/Number of Children in:
 - a. Nursery School-----
 - b. Primary School (No. of years)-----
 - c. Vocational School-----
 - d. Secondary School (No. of years)-----
 - e. Post-Secondary School (Specify)-----
 - f. Out of School (Reason)-----

- 2.8 Number of children working-----

3.0 PHYSICAL ASSETS – LIVING ACCOMMODATION AND INFRA-STRUCTURE

3.1 Buildings within the household’s compound

	1. Existence 1. Yes 2. No	2. No. of rooms	3. Main wall materials (CodeA)	4. Main floor materials (CodeA)	5. Main roof materials (Code A)	6. How were these acquired? (Code B)
1. House						
2. Separate Kitchen						
3. Separate Smoking Shed						
4. Separate latrine						
5. Separate Bathing Shed						
6. Other Buildings (Specify)						

Code A: Materials:

Wall: Thatch = 1; Wood = 2; Tin/metal = 3; Sticks and mud, not plastered = 4; Sticks and mud plastered = 5; Mud bricks, not plastered = 6; Mud bricks, plastered = 7; Cement blocks, plastered = 8; Cement blocks, not plastered = 9; Others (specify) = 9

Floor: Sand = 1; Mud = 2; Cement = 3; Wood = 4.

Roof: Tin/metal = 1; Thatch/ tarpoline = 2;

Code B: 1= Purchased. 2= Donated by friends, colleagues or family 3= Rented

4.0 PARTICIPATION IN DECISION MAKING

7. Who can give accommodation to a family member	8. Who can rent or loan out accommodation?

Appendices

5.0 FUEL (Multiple responses acceptable)

5.1 What type of fuel do you use for :

5.1.1 Cooking?

	FUEL	Qty / WeeK	Amount /WeeK
1	Firewood		
2	Charcoal		
3	Gas		
4	Kerosene		
5	Saw dust		
6	Electricity		
7	Other (specify)		

5.1.2 Lighting?

	FUEL	Qty / WK	Amount / WK
1	Candle Wax		
2	Kerosene		
3	Gas		
4	Electricity		
5	Charcoal		
6	Other (specify)		

Table 5.1.3 Energy use

FUEL	Quantity per week	Amount per week
Firewood		
Charcoal		
Gas		
Kerosene		
Saw dust		
Electricity		
Other (Specify)		

6.0 PARTICIPATION IN COMMUNITY ORGANISATIONS

6.1 Membership in Organisations

6.1.1 Which organizations are you a member of in the community? (Name):

1. Religious-----
2. Cultural-----
3. Professional/ Business-----

4. Community Dev Association-----

6.2 Membership of Community Development Associations

6.2.1 Which of the community development associations are you a member of? (Savings, Esusu, Cooperative, Self help, etc)

Type of Organisation	Name of Organisation	Activities/Function

6.3 Leadership Positions Held

6.3.1 Do you hold any leadership position in the community? (Multiple Responses Allowed)

(Community Leader, Traditional Leader, Women Leader, Religious Leader, Professional Leader, Youth Leader)

Leadership Positions Held	Position held by Spouse

7.0 FISH PROCESSING AND MARKETING INFORMATION

7.1 Purchase of Fresh Fish

1. What type of fish are you marketing? Bonga-----Bigfish-----Crayfish-----
2. Where do you buy the fish from? -----
3. How do you transport the fish? -----
4. Where do you transport it to? -----
5. Who do you buy fish from? -----
6. Can you buy from anybody? -----

7.2 Conditions of Purchase

1. What is your relationship with those you buy from? -----

2. Do you buy with cash or on credit? -----

3. If on credit what are the conditions? -----

7.3 Fish Processing

1. Do you process? Yes-----No-----
2. .If yes, how many days in a week do you process? -----
3. What is involved in the processing? -----

Appendices

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4. Does anybody help you? Yes-----No-----
 5. If yes, who helps you? -----
 6. How do they help you?
 - a. Transporting
 - b. Cleaning
 - c. Putting on sticks /rackets,
 - d. Smoking
 - e. Fetching firewood
 - f. Fetching water
 - g. Others (Specify)
 7. Do you pay for the services? Yes----- No-----
 8. If yes which ones and how much in a week?
 - a. Transporting, -----
 - b. Cleaning -----
 - c. Putting on rackets,-----
 - d. Smoking -----
 - e. Fetching firewood -----
 - f. Fetching water -----
 - g. Others (Specify) -----
 9. What do you do with the fish after processing? -----
 10. If you do not process what do you do with the fish?
 - a. Sell fresh at the beach -----
 - b. Store fresh fish to sell later -----
- If sold fresh immediately, go to 8.2, if no, continue

1. If fresh fish is stored, what storage facility do you have? -----
2. If you do not have, what facility do you use? -----
3. Where is it located? -----
4. How much do you pay for storage in a week? -----
5. Who do you sell to after the storage? -----
6. Where do you sell it? -----

8.0 FISH MARKETING INFORMATION

8.1 Purchase of Smoked Fish

1. What type of fish do you buy? -----
2. Where do you buy from? -----
3. Who do you buy from? -----
4. Do you sell your stock immediately after buying? -----
5. Do you normally store the fish? Yes-----No-----
6. If yes where? -----
7. For how long before selling? -----
8. Why do you store? -----

8.2 Fish Sales

8.2.1 Fresh Fish

1. Who do you sell the fresh fish to? -----
2. Where do your buyers come from? -----
3. Do you transport fish to any market to sell? Yes----- No-----
4. Which markets? -----
5. How many times in a week do you go to these markets? -----

8.2.1.1 Conditions of Sales

1. Do you sell for cash or credit? -----
2. If on credit what are the terms for the credit sale? -----

3. What is your relationship with the client you sell to on credit? -----

4. How long does it take to recover your money? -----

8.2.2 Smoked Fish

1. Who do you sell the smoked fish to? -----
2. Where do your buyers come from? -----
3. Do you transport fish to any market to sell? Yes----- No-----
4. Which markets? -----
5. How many times in a week do you go to these markets? -----

8.2.2.1 Conditions of Sales

1. Do you sell for cash or credit? -----
2. If on credit what are the terms for the credit sale? -----

3. What is your relationship with the client you sell to on credit? -----
4. How long does it take to recover your money? -----

8.3 REVENUE

1. How much money do you make from fish sales per week? -----
2. What other economic activities are you involved in? -----
3. How much money do you make from non-fish activities in a week? -----
4. How much money do you make from other sources per month, e.g., pension? -----
5. How much money does your husband give you in a week? -----
6. How much money do your children give you in a week? -----
7. What is the total amount you make from all sources in a month? -----

8.4 EXPENDITURE

1. How much money do you use to buy fish in one week? -----
2. How much do you spend on transportation of fish in a week? -----
3. Do you pay for any assistance? Yes ----- No.-----
4. If yes how much do you pay per week for assistance in your fish marketing activities? -----
5. How much money do you spend on other economic activities? (Specify) -----

6. What is the total amount spent on your business transactions in a week? (Fish and Non Fish)-----

Appendices

8.5 NON- FISH ECONOMIC ACTIVITIES

Type of Activity	1. Task	2. Period carried out	3. Persons who carried out task	4. If not you who does it?			5. What were the conditions?	Amount Paid ₦
				Person's Relationship to you	Age	Sex,		
1. Crop Farming	Bush Clearing							
	Purchase and Transport of planting material							
	Planting							
	Weeding							
	Harvesting & Transport							
2. Petty trading	Articles purchase							
	Taking stock / keeping Accounts.							
	Sales & Record keeping							

9.0 PROFITABILITY:

1. Do you make profit from fish sales? Yes ----- No. -----
2. If yes, how much per week? -----
3. If no, why? -----

4. Do you make profit from your other non-fish business activities? -----
5. If so how much per week? -----
6. If not why? -----

10.0 LIQUIDITY

10.1 Finance for Fish Marketing Business

1. How much cash do you use for your fish marketing business in a week? -----

2. What is the source of your finance? -----
3. Do you have enough money to use in the fish trade? -----
4. Would you take a loan for use in your fish trade? -----
5. How much fish do you normally buy on credit in a week? -----
6. How long does it take to pay the money back? -----
7. When you sell on credit how long does it take to recover your money? -----

10.2 Ownership of Equipment

- 10.2.1 What equipment do you own? (Please tick) Estimated Cost
- | | | |
|------------------------------|-------|-------|
| Outboard engine | ----- | ----- |
| Fishing nets and accessories | ----- | ----- |
| Fishing boat | ----- | ----- |
| Deep Freezer | ----- | ----- |
| Generating set | ----- | ----- |
| Others (Specify) | ----- | ----- |
- 10.2.2 How was the equipment acquired? -----
- 10.2.3 Who is managing them? -----
- 10.2.4 Is it on loan to the person? Yes ----- No -----
- 10.2.5 If yes, what are the terms of repayment? -----
- 10.2.6 If no, what other arrangements do you have with the person? -----

- 10.2.7 How much money do you make per week from your equipment? -----
- 10.2.8 Do you make any profit from the equipment? -----

10.3 Loans Taken

(Respondents should be fish marketer female head of household or a wife who is a fish marketer).

- 10.3.1 In the last one year have you taken a loan from any source in cash? Yes; -----No ----
- 10.3.2 If yes, how much? -----
- 10.3.3 Source of Loan: -----
- 10.3.4 Purpose of loan -----
- 10.3.5 Loan Period -----
- 10.3.6 Amount repaid -----
- 10.3.7 Amount Outstanding -----
- 10.3.8 If outstanding, when will you pay back? -----
- 10.3.9 If no loans taken, why? -----

11.0 CUSTOMER RELATIONS

11.1. Relationship with Clients you buy Fish from:

- 11.1.1 What is your relationship with the people who sell only for cash to you? -----

- 11.1.2 Do you get discounts for paying cash ? -----
- 11.1.3 Why do they give you discounts? -----
- 11.1.3 Do you also make advance payments for fish? -----
- 11.1.4 Why? -----
- 11.1.5 Are there any inducements to keep your customers? -----
- 11.1.6 Do you do trade by barter? -----
- 11.1.7 What is your relationship with the people who sell to you on credit? -----

- 11.1.8 What are the conditions for the credit? -----

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11.2 Relationship with people you sell fish to:

- 11.2.1 Do you sell to regular customers or to anyone that pays cash? -----
- 11.2.2 Do you sell on credit too? Yes-----No -----
- 11.2.3 If yes, to whom? -----
- 11.2.4 If no, why? -----
- 11.2.5 Where do the people you sell to on credit live? -----
- 11.2.6 Where do the transactions take place? -----
- 11.2.7 How long does it take to get your money back? -----
- 11.2.8 What is your relationship with the persons? -----
- 11.2.9 What are the terms of the credit? -----

12. MEASUREMENT OF PERFORMANCE

12.1. Financial Performance

- 12.1.1 For how long have you been selling fish? -----
- 12.1.2 How much money do you realize in a week? -----
- 12.1.3 Is any member of your family into fish marketing business? -----
- 12.1.4 If so, who? -----
- 12.1.5 Who gave her the money to start? -----
- 12.1.6 Does she buy fish from the same persons as you do? -----
- 12.1.7 Do you share the customers you sell to? -----
- 12.1.8 What major assets have you acquired since you started fish business? -----
- 12.1.9 Do you have any savings? -----
- 12.1.10 Where do you keep the money? -----
- 12.1.11 Do you contribute regularly to an Osusu group? Yes----- No -----
- 12.1.12 Amount contributed per week -----

12.2 Domestic Performance

- 12.2.1. How many of your children are in school? -----
- 12.2.2. Who pays their school fees? -----
- 12.2.3. Who buys books, uniforms and other school needs? -----
- 12.2.4. What else do you spend money on?
 - a. Rent -----
 - b. Savings -----
 - c. Ceremonies -----
 - d. clothes -----
 - e. Medication -----
 - f. Others (Specify) -----

12.2.5 Food and Nutrition

- 1. Do you provide the food for your household? -----
- 2. What is your staple food? -----
- 3. How many times in a day do you eat? -----
- 4. How many times in a day do your children eat? -----
- 5. Who provides the food? -----

13 WATER AND SANITATION

13.1 What water source do you have for domestic use?

13.2 How long does it take to fetch?

Well-----	5 min
Spring/Stream-----	5-10 min
Borehole-----	10-20min

13.3 What is the source of your drinking water?

Well	Borehole
Spring	Packaged Water

13.4 Do you boil the water before drinking in your household? Yes----- No -----

14.0 HEALTH STATUS OF HOUSEHOLD

1. What health facility do you have in your community? -----

2. How far is it from your house? (Walking Distance) -----

3. What is the major sickness affecting?

- a. You-----
- b. Your children-----
- c. Your husband-----

4. How often does it occur to?

- a. You-----
- b. Your Children-----
- c. Your Husband-----

5. What kind of medicine do you use for the illness:

- a. Yourself-----
- b. Your Children-----
- c. Your Husband-----

6. What is the source of the medication?

- a. Health Centre
- b. Traditional Health Worker
- c. Herbalist
- d. General Hospital
- e. Patent Medicine Store

7. Who pays for the medication you give?

- a. Yourself -----
- b. Your children -----
- c. Your husband-----
- d. Other household members -----

8. What toilet facility do you use?

- a. VIP Toilet
- b. Pit Toilet
- c. None, we use the beach.
- d. None, we use the bush
- e. Beach VIP Toilet

Appendices

14.0 HIV and AIDS

- 1. Do you have any case of prolonged illness in your family? Yes---No----
- 2. Does any of your neighbours or friends suffer from a prolonged illness? Yes--- No---
- 3. Do you have any orphans in your household? -----
- 4. What happened to their parents? -----
- 5. Do you know anything about HIV/AIDS? Yes---No----
- 6. What was the source of your information? -----
- 7. Have you heard of anybody suffering from the illness in your community? Yes---No----
- 8. Have you ever seen an AIDS Patient in this community? Yes--- No---
- 9. If yes where? -----
- 10. Are there any women in the community doing nothing? -----

15.0 Time Allocation

- 15.1 How many hours per day do you use in your fishing business? -----
- 15.2 How many hours per day do you use for other income generating activities? (Specify -
- 15.3 How many hours in a day do you use for non-income generating activities such as:
 - Cooking ----- Washing Clothes -----
 - Fetching Firewood ----- Cleaning the house -----
 - Taking care of children ----- Taking care of yourself-----
 - Going to the market to buy food----- Taking care of the sick-----
 - Fetching water ----- Taking care of adults in household -
 - Others (Specify) -----

16.0 CHALLENGES:

16.1 Economic Environment

- 16.1.1 Institutional Challenges
 - 16.1.1.1 What institutional challenges do you face in your business? -----

16.1.2 Cultural challenges

- 16.1.1.1 What cultural challenges do you face in your business? -----

16.2 Domestic Environment

- 16.2.1 Institutional Challenges
 - 16.2.1.1 What institutional challenges do you face in your home? -----

16.2.2 Cultural Challenges

- 16.2.2.1 What cultural challenges do you face in your home? -----

Appendix 2:

Checklist for Focused Group Discussion on assessing the functioning of the smoked fish and crayfish market at Ibaka community.

1. When are the main market days for fish and crayfish sales in Ibaka?
2. Do all the marketers sell every market day? Yes----- No-----
3. If yes, which communities do the sellers come from? -----
4. If no, why can't everyone sell at the same time? -----
5. Do you take turns to sell on different market days? Yes-----No-----
6. How is it arranged? -----
7. Do you have to belong to any association before you can sell fish or crayfish at the market? Yes- ----- No -----
8. If yes, which associations? -----
9. Who controls the market? -----
10. Do you pay any levies? -----
11. To whom? -----
12. Who maintains law and order in the market? -----
13. Who takes care of the maintenance of the market? -----
14. Who takes care of the sanitation of the market? -----
15. Where do the buyers come from? -----
16. Do you sell on credit at the market? -----
17. If yes, Why? -----
18. To whom? -----
19. How long does it take to get your money back? -----
20. Do you always get your money back? -----
21. If no, why don't you sell on credit? -----
22. Does anybody help you sell when you are not around? -----

Appendix 3

Checklist for focus group discussions with women and men's groups on developments in Ibaka

General

- Date of Interview-----
- Location-----
- Local Government Area-----
- Membership of Focus Group-----

Socio-Economic Development

1. What infrastructural facilities do you have in the community? (E. g. water and sanitation, electricity, schools, health facility, road, etc)
2. Are they adequate and sufficient for the community?

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3. What positive changes have occurred in the community in the last five years?
4. Has there been any increase in the economic activities now compared to 5 years ago?
5. What problems do people encounter in their businesses here?
6. What could be done to alleviate the problems and improve the business?
7. What could be done differently from current practices to enhance efficiency?
8. If you had funds would you put it in the same business or a different one?
9. Why?
10. How many ethnic groups are represented in the community?
11. What are the constraints preventing further development and progress in the community (Health, funding, cultural, institutional)?
12. Do people change trade here? What reasons do they give?
13. What changes have you observed in your community in the past ten years in terms of: Population; Community infrastructure, Gear and craft, Catches and sales, Marriage and social values, Occupational and socio-economic.

Power and Authority

1. How is the community governed?
2. Are there women in the village council?
3. What roles do women and men play in the community?
4. How are conflicts resolved?
5. Who resolves the conflicts?
6. Who takes decisions in the household (on food, health, education, clothes, business, religion, money, children, etc.)?

Households & Children

1. What is the average number of children born by women in this community?
2. Do all the children of school age attend school?
3. If no, why?
4. What proportion of the children in a family generally complete Secondary School?
5. Who pays school fees for the children?
6. Who provides food, books, clothes, etc for the children?
7. What are the children who are not in school doing?
8. Are children involved in the fishery business?
9. What roles do they perform? (Boys and Girls)?
10. What do those not involved in the fishery business do?
11. How do they survive?
11. Are there other household members and are they involved in the fishery?
12. What do you think is the future of the fishing business in Ibaka?

Income Generating Activity and Gender Division of labour

1. What are the main income generating activities in this community?
2. What is the order of priority?
3. Which of the enterprises would you consider largely women's enterprises?
4. Which ones are largely considered as men's enterprise?

5. What are the major constraints faced in the management of the income generating activities mentioned above?
6. How are the women performing in their business?
7. Do you think the women are making any money?
8. How do women spend their money compared to men?

Food Security

1. What are the food security crops and status and what is the coping mechanism for the lean season in the community?
2. What financial, marketing, insurance, and other services exist in the community and who has access to them?
3. Has there been any reported case of HIV/AIDS in the community?
4. In your opinion, what has been the impact, if any, of HIV/AIDS in the households and Ibaka community? (For men, women and children)
5. What coping strategies are people using in their households?
6. How can the community be strengthened to assist the affected households?
7. How far is the nearest health facility from the community?
8. What Civil Society Organisation is working in the area on HIV/AIDS related programs?
9. What type of water sources are available to the community and what is their status?
10. Where do community members get treatment when sick?
11. What do men have access to, compared to women?

Fish Trade

1. What kind of fish are bought and sold here?
2. How are the buying and selling carried out and who are the people involved at every stage?
3. What are the standard practices in the fish trading business here?
4. What are the problems associated with the management of the fish trade?
5. How is the fish trade presently, compared to 5 years ago?
6. What processing facilities are available and how is it done?
7. Are they communally or individually owned?
8. What cold storage facility does the community have?
9. How far is the nearest food/ produce market?
10. What kind of people buy the fish?
11. What cultural and institutional constraints are there in the fish trade business?

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Appendix 4

Checklist for Key Informants

Date of Interview:

Location of Respondent:

Name and Designation of Respondent:

Educational Level of Respondent:

General questions

1. What do you think about the general living conditions in Ibaka?
2. What can be done to improve it?
3. Do you think the people in the community are highly vulnerable to HIV/AIDS?
4. Why do/don't you think so?
 5. Has the government carried out any awareness campaign or any other action to curb the spread of the epidemic around here?
 6. Do you have any experience with the epidemic?
 7. Has the community tried in any way to curb the spread of the epidemic?
 8. Is any Civil Society Organisation carrying out preventive programs in the community?

Specific questions

1. What are the main income generating activities for people in Ibaka? (Fisheries Officer, Local leaders)
2. What are the three main challenges for people in terms of improving their livelihoods? (Fisheries Officer, Local leaders)
3. What factors could cause a high prevalence of the epidemic in the community? (Fisheries Officers, Local leaders, Health Officers)
4. What is the status of water resources in the community? (Fisheries Extension Officer, Local leaders).
5. What percentage of the people can access safe and potable water?
6. What kinds of health facilities are available in the community and how many are they?

Appendix 5

In-depth Life History Interview Guide

1. Basic Biographical Data

1. Name of Interviewee
2. Name and place of interview
3. Age and place of birth
4. How long lived in Ibaka
5. Ask about early life
6. Current marital status (If widowed find out details about the dead spouse: date, cause, occupation before death, etc.)
7. Educational background
8. Ethnic and religious background
9. Occupation of parents
10. Educational background of parents
11. Where parents live currently
12. Number of brothers and sisters (Ages, educational level attained, marital status, number of children, dead and alive- cause of death for the dead)
13. Where they live and what they do.
14. Nature of relationship and support from siblings.
15. Number of children (Probe for sex, age, educational status, marital status and occupation and where they live for grown up children).
16. Relationship with parents
17. Ask respondent to relate the history of their growing up and factors that influenced their lives.

2. Household Activities and Outcomes

1. Start with the history of livelihood generation for the household
2. Currently, what is the main source of livelihood?
3. How did she learn the fish trade?
4. What fisheries and non-fisheries income generating activities are the household members engaged in? How have these changed over the last three years? What are the reasons for the changes? (For each activity probe for its importance in terms of income earned and potential to ensure food security; Gender division of labour; Access to resources and benefits; Constraints experienced with undertaking the activity and ways in which members cope).
5. What has been the effect of member's ill health on the fish trade and other non-fish income generating activities? (Probe for common cause of disease and whether they get sick over a long time).
6. How has the household overall livelihood security changed over the last three years?
7. What assets have been acquired or lost? Type of , and overall weakened or strengthened assets base.
8. How is the well-being of the household? (Feeding, clothing, education, health)
9. What is the perception on increased or reduced vulnerability to shocks?

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3. Culture and Social Relations

1. What are the cultural beliefs and values, social relations associated with marriage, socializing the young, care, inheritance of land and property,
2. What social beliefs are associated with fisheries and agricultural production as well as household and community maintenance?
3. How are the household power relations in terms of
 - Decision making,
 - Division of labour,
 - Resource allocation,
 - Access to resources.
 - Probe for the power relations between spouses, in-laws and fish trader, and children.
4. In what ways has culture shaped the life of the respondent and affected her means of livelihood?
5. What cultural constraints has she faced in her domestic and economic lives, in her bid to make a livelihood?
6. What social and cultural changes have occurred between now and the time you were young and growing up?

4. Effect of Institutions and Affiliations on Community Life

1. What institutions do you have in the community (Government, non-governmental, cultural, religious, etc.?)
2. What assistance have they offered you in your domestic and economic activities?
3. Are you a member of any association (Professional, developmental, social, cultural, religious, etc.)?
4. Has your membership brought any gains? How have you benefitted?
5. How have you adjusted to the lack of institutional assistance in your business?
6. What assistance would you need to improve your business and ability to maintain your household?

5. HIV/AIDS in the household

1. Do you have any experience of HIV/AIDS in this community?
2. Has it affected your household? In what ways? (Probe for specific effects on household size and composition; household labour, income and expenditure; assets; economic activities; food security; intra-household social relations; household members' well being; health of affected and non-affected household members).
3. How have you dealt with the effects of HIV/AIDS (Probe for responses and strategies for reduced household labour, increased number of orphans, increased health-related costs, reduced household income, increased care burden, education of children, intra- and inter-household conflict).
4. Ask if household has received any HIV/AIDS related support. (Nature and type of support received, from which source: children, relatives, government, CBOs, NGOs).

Summary

The contribution of fisheries to food security in Africa cannot be underestimated. It provides over 30 percent of the protein consumed by the Nigerian population. However, Nigeria produces only about 45 percent of the fish requirement locally while the shortfall of about 55 percent is imported. Over 80 percent of the local production is from the artisanal, small scale sector. While several studies have been conducted on the productivity of many water bodies, endemic fish species, different fisheries, boats mechanization and the role of the fishermen, socio-economic and gender issues in fisheries have received scant attention. Such research has therefore become necessary for the development of relevant policies and intervention programmes. The sustainable livelihood approach was used in facilitating the understanding of how the women fish traders' livelihoods are created, sustained and constrained by a set of complex factors and processes including institutions and culture. The main objectives of this study were to:

1. Contribute towards the livelihood and gender theory by focusing on the performance of women fish traders in the economic and domestic domains in a coastal fishing community, given the institutional and cultural constraints, their vulnerability and susceptibility to HIV and AIDS;
2. Identify the implications for household food and livelihood security and the critical factors needed to be considered in the development of relevant policies that would ensure sustainable livelihoods and lower vulnerability levels for the women fish traders and their households.

Specifically, the study aimed at highlighting the complexity of sustaining rural livelihoods by women fish traders in a coastal fishing community in Nigeria and the flexibility and variation, which give the fish trading system its continuing ability to link other commercial and non-commercial sectors, characterised by constantly shifting relationships. A gender perspective was applied throughout the study. The study was carried out in Ibaka, a dynamic commercial centre and the largest coastal fishing community in Akwa Ibom State in the Niger Delta of Nigeria, which is largely undeveloped but has over 70 percent of the population depending on the fisheries for their livelihood. A cross-sectional study design was used, in combination with qualitative and quantitative research methods. Apart from being descriptive in nature, an analytical approach was also used by arranging and processing the collected data in different ways and through testing different hypotheses.

Due to the large variation in the range and scale of enterprises obtained, the fish traders comprise some of the largest wholesalers on the Nigerian coastline and some of the poorest strolling hawkers, living from hand-to-mouth. This is a characteristic feature of a major market, and the study seeks to identify the key social, economic and institutional forces, which generate, maintain and continue to reshape this diversity. The forces originate from the market, its links with the household, community, and national level processes, which create conflicting interests and pressures on the individual fish traders as they struggle for survival and the accumulation of wealth. These contradictions renew and transform the trading relations, including their constraints.

The main household resources available and accessible were the labour of the women fish traders themselves and the female members of their families. Through family ties, churches, professional associations, social clubs and *osusu* groups trade networks and social capital, on which depended success in the fish trade were developed. The economic resource was the different species of fish provided by the sea. The physical resources included

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equipments such as boats, nets, outboard engines, landed properties, houses, and mobile phones. The women also used their own trading and language skills, and years of experience in the trade to their advantage. Those with sufficient years of education also deployed their educational skills to their advantage. The gendered nature of the fish trade and the fact that it requires professional skills ensures that labour is expensive to hire. Only very few women fish traders, operating on a large scale and earning higher incomes possessed tangible assets, and were able to acquire equipments such as outboard engines, fishing and transport boats, and other assets such as land, houses, generators, deep freezers, market stalls as well as fish trade titles

Processing and trading in either *bonga*, big fish or crayfish, and providing labour for fish processing remain the main livelihood strategies and the main source of livelihood for most women fish traders in Ibaka. Most of the incomes used for the maintenance of their children and households are derived from these. Diversification into other economic activities including fashion designing, subsistence farming, food processing, money lending, food vending and petty trading is also adopted by most women, while the better-off are involved in water transportation, equipment leasing, money lending, *bukka* business. The strategies adopted are affected by factors such as age, skills acquired, years of experience, working capital available for the trade, educational status, and number and ages of children. Younger traders try to acquire other skills and formal education to enable them diversify while the older women concentrate on earning higher incomes through developing their social capital, expanding their networks, and making better business connections, to enable them diversify, educate their children and secure their livelihoods

The study identifies three groups of women fish traders in Ibaka: the *bonga*, big fish and crayfish traders, who all operate as small, medium and large scale traders, depending on the amount of working capital used. Many similarities were observed in the lack of access to resources, lack of infrastructural facilities, the mode of recruitment into the trade, the involvement of family members, the use of social capital, and the use of incomes for the livelihood sustenance of their households. However, significant differences by age, educational status, years of experience, working capital and wealth status were observed between the three fish trade groups. Big fish traders with older members had more experience, higher working capital and incomes, and consequently more assets than *bonga* and crayfish traders. In addition, limited access to resources for most of the poor fish traders, especially from the *bonga* group, forced them into activities that yielded low returns, such as casual labour and subsistence farming, re-enforcing their poor performance in the economic and domestic domains.

The study shows that the fish trade is a gendered activity, and the most profitable livelihood strategy undertaken for the sustenance of households in Ibaka, providing the women with incomes used for the maintenance and upkeep of their households, and the payment of their children's school fees, healthcare bills and other needs.

However, in spite of their different circumstances, interests and opportunities, the women fish traders all face similar risks, shocks and stress, associated with their location and environment. These include seasonality, conflicts, and HIV and AIDS, as well as institutional and cultural constraints, which make them vulnerable. The institutional constraints identified include lack of physical and marketing infrastructure, financial services, and access to resources, information asymmetries, high transaction and labour costs, while the cultural constraints include the beliefs, taboos, ethnicity, norms, values and family life. The adaptation strategies used for the institutional constraints included buying and selling on credit, use of social capital and networking, membership of *osusu* groups, patronising local money-lenders,

use of family labour, including under-aged children, sourcing for water from shallow wells and commercial boreholes for washing and drinking respectively, patronising traditional health practitioners and patent medicine stores, and the churches over their health problems. On the other hand, the adaptation strategies for the cultural constraints included intermarriage with the indigenes, joining associations and clubs, working from home on days of cultural festivals, non-pooling of incomes and striving for independence and autonomy.

Apart from the cultural and institutional constraints the study shows that the fish trade is affected by seasonality which is a major cause of vulnerability. During the lean season which covers about six months of the year, fishing activities and incomes are reduced to a minimum for all the fish species due to high fish prices at the beach and insufficient working capital. The traders then experience periods of food shortage and hunger in the household, making them highly vulnerable and susceptible to poverty and HIV and AIDS. Fire incidents and conflicts also contribute to their vulnerability.

The study shows that participation in the fish trade is through kinship and marriage, and only women who possess specific skills, working capital, available networks and social capital, and belong in a certain culture, location and ethnicity can participate. It is also determined by household structures, gender division of labour, marriage, residence and inheritance patterns. However, in the absence of functional institutions, and with several cultural barriers to contend with, the fish trade, which is often regarded as an extension of household tasks embarked upon to ensure the livelihood sustenance of the household, is carried out by the women fish traders using social networking and social capital, to facilitate their trading profession. Sources of social capital include kin, neighbours, friends, matron-client relationships, mutual trust, *osusu* groups, social clubs and associations, norms and values, and churches.

The study shows that the Ibaka fish market, like most rural food markets in West Africa, operates without any supporting structures. It lacks infrastructural facilities and access to information, with a non-existent line of communication between the women fish traders and the consumers. The provision of an improved communication system, infrastructural facilities, credit systems and adequate information would therefore reduce the transaction costs and make for a better coordination mechanism in the market. The study also shows that the fish market in Ibaka operates through incomplete contract transactions, where it is impossible to reach an agreement in advance about all possible events that could affect the exchange. Even though it is a rural market dealing with a single commodity, and does not quite fit into the modern urban market category, it possesses many attributes of an imperfect market. These include non-homogenous products, fewer buyers and sellers, no market transparency and barriers to entry and exit. The various types and degrees of market imperfection characterise Ibaka market as a missing market and a thin, incomplete and interlocked market.

The study shows that performance in the economic domain is mainly determined by the women fish traders' ability to mobilize sufficient working capital from different sources and arrange for regular supply of fish, social capital and networking ability, the years of experience, skills acquired, the ability to pay for labour, the profitability of the enterprise, level of income, the ability to save, their assets base and wealth status, among others. Performance in the domestic domain is determined by the ability to educate children, the type of housing, the energy type used for lighting and cooking, the health status of the household, and the number of hours spent in the household.

The study shows that performance in both domains is influenced by age, years of experience, skills acquired, amount of working capital used, educational status, status of mother in the trade, social capital and the number of children. The women fish traders also derive potential benefits associated with their location if they successfully adapt to the

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conditions and adopt sustainable livelihood strategies. All these together, affect their performance in the economic and domestic domains, and their success at maintaining the livelihoods of their households. The big fish and crayfish traders seemed to perform better than the *bonga* traders generally, both in the economic and domestic domains.

The study also shows that good performance in the economic domain engenders good performance in the domestic domain because the possession of sufficient incomes enables the women to feed and educate their children, maintain a healthy household and take care of themselves. Sufficient incomes also engender the ability to own or live in permanent structures in the community and the use of generating sets for lighting and kerosene stoves for cooking in the households. However, the lack of basic information and documentation on HIV and AIDS in Ibaka has made it impossible to determine how susceptible and vulnerable the women fish traders and their families are to the disease even though evidence from fishing communities in other countries has shown fisherfolk to be more vulnerable than rural upland populations.

In conclusion, the resilience of the women fish traders and their survival in the fisheries sector can be explained through the rigid and gendered division of labour. This is backed by the determination of the women to become independent economically and overcome the cultural biases imposed through patriarchy, polygamy and discriminatory inheritance laws. Also, there is the incentive of being able to take care of themselves and their children, gain some power, agency and autonomy. The realization that men depend on the women to dispose of their fish catches, giving the fish economic value, further strengthens the position of the fish traders in the fishery economy of Ibaka. The women fish traders' conversion of profits made from the fish trade into ownership of fishing and transportation boats is true entrepreneurship. Using new and innovative ways of finding new or acquiring more customers and accumulating capital is also entrepreneurial. However, there is far less risk, both socially and economically, in expanding the scope in the trade and climbing in the female market hierarchy than in investing in a male domain.

The fact that the women fish traders live in the same community and locality, and are exposed to similar institutional and cultural constraints does not mean that there are no differences between the three fish trade groups. The constraints impact differentially both within and between the groups and the strategic responses depend on the category the fish trader belongs to within the group and her wealth status in the trade and the community. Environmental factors and processes such as climate change and oil pollution, and the general economic crisis, also make fisherfolk vulnerable and susceptible to HIV and AIDS. While the government is trying to extend development to the rural areas, it is pertinent that remote communities like Ibaka should be specially targeted. Gender mainstreaming should also be incorporated in the development process in order to reduce glaring inequalities, with certain social groups being marginalized while others are privileged. This will reduce the women traders' level of vulnerability to constraints, stresses, risks, and shocks in our rural communities.

Samenvatting

De bijdrage van de visserij aan de voedselzekerheid in Afrika moet niet onderschat worden. De visserij levert 30 procent van de proteïne van de Nigeriaanse bevolking. Toch produceert Nigeria slechts ongeveer 45 procent van de lokale visbehoefte, de rest wordt geïmporteerd. Meer dan 80 procent van de lokale productie is afkomstig van de kleinschalig visserij. Terwijl er veel onderzoek is gedaan naar de productiviteit in relatie tot inheemse vissoorten, de verschillende soorten visserij, de mechanisering van vissersboten en de rol van de vissers, hebben socio-economische en *gender* vraagstukken in de visserij daarentegen nauwelijks aandacht gekregen. Zulk onderzoek is noodzakelijk voor de ontwikkeling van relevante beleidsmaatregelen en interventie programma's. De *sustainable livelihood* benadering werd gebruikt om inzicht te krijgen in de wijze waarop vrouwelijke vishandelaren in hun levensonderhoud voorzien en welke rol daarin wordt gespeeld door institutionele and culturele factoren en processen. De belangrijkste doelstellingen van de deze studie waren:

1. Een bijdrage te leveren aan *livelihood* en *gender* theorie door onderzoek naar de rol van vrouwelijke vishandelaren in het economische en het huishoudelijke domein, in het licht van de institutionele en culturele belemmeringen waar ze mee te maken hebben, als ook hun kwetsbaarheid voor HIV infectie en de gevolgen van AIDS.
2. Identificatie van de implicaties hiervan voor de voedsel- en bestaanszekerheid van de huishoudens en de factoren die in overweging genomen dienen te worden bij de ontwikkeling van beleidsmaatregelen gericht op het vergroten van de bestaanszekerheid en het verminderen van de kwetsbaarheid van vrouwelijke vishandelaren en hun huishoudens.

Meer specifiek richtte deze studie zich op het belichten van de wijze waarop de vrouwelijke vishandelaren in een vissersdorp aan de kust van Nigeria in hun bestaan proberen te voorzien en de flexibiliteit en variëteit die daarin een rol spelen en die de vishandel in staat stellen om voortdurend wisselende relaties te onderhouden met zowel de commerciële als de niet-commerciële sectoren van de samenleving. Een *gender* perspectief werd systematisch in de gehele studie toegepast.

Het onderzoek werd uitgevoerd in Ibaka, een dynamisch handelscentrum en de grootste vissersgemeenschap in de staat Akwa Ibom in de Niger delta van Nigeria, die grotendeels onderontwikkeld is en waar meer dan 70 procent van de bevolking afhankelijk is van de visserij voor hun levensonderhoud. In de studie werd een combinatie van kwalitatieve en kwantitatieve onderzoeksmethoden gebruikt. Hoewel de opzet van de studie *cross-sectional* (periode onderzoek) was, werd in de levensgeschiedenissen van de vrouwen in de case studies zichtbaar hoe de levens van vrouwen door de tijd heen verlopen. De studie is descriptief en verklarend van aard. De huishoudsurvey data werden gebruikt om verschillende hypothesen te toetsen en de relaties tussen belangrijke variabelen te onderzoeken.

Als gevolg van de grote variatie in de reikwijdte en schaal van hun handel, omvatten de vishandelaarsters zowel enkele van de grootste handelaren aan de Nigeriaanse kust als arme, kleine handelaarsters die van de hand in de tand leven. Dit is een kenmerkend verschijnsel van een grote markt en deze studie poogt de belangrijkste sociale, economische en institutionele krachten te identificeren die op het ontstaan en de bestendinging en de verandering van deze

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diversiteit inspelen. De krachten vinden hun oorsprong in de markt en zijn verbonden met het huishouden, de gemeenschap, en processen op nationaal niveau, en creëren conflicterende belangen en spanningen bij individuele vishandelaren die bezig zijn met overleven en het vergaren van rijkdom. Deze contradicties vernieuwen en transformeren de handelsrelaties, met inbegrip van hun beperkingen.

De belangrijkste hulpbron beschikbaar voor de handel is de arbeid van de vishandelaarsters zelf en die van de vrouwelijke leden van hun huishouden en familie. Door familiebetrekkingen, kerkelijke contacten, professionele en sociale verenigingen en *osusu* clubs ontstaan handelsnetwerken en sociaal kapitaal. De vis die de zee levert vormt de primaire economische hulpbron. De fysieke hulpbronnen omvatten het geheel van gereedschappen zoals boten, netten en buitenboordmotoren, huizen, en mobiele telefoons. De vrouwen wendden ook hun eigen handel- en taalvaardigheden en hun jarenlange handelservaring ten eigen bate aan, evenals het onderwijs dat zij genoten hebben. Het feit dat de vishandel gedomineerd wordt door vrouwen en dat deze handel specifieke professionele vaardigheden vereist, maakt dat het moeilijk en duur is arbeid in te huren. Slechts enkele vrouwelijke vishandelaren waren in staat uitrusting zoals buitenboordmotoren en vis- en transportschepen te verwerven, hetgeen ook gold voor kapitaalgoederen zoals land, huizen, generators, diepvriesinstallaties, en marktkramen.

De verwerking en handel van *bonga*, grote vis, of *crayfish* (kleine kreeft), en het werken in de visverwerking blijven de voornaamste middelen van bestaan en de belangrijkste bron van inkomsten voor de vishandelaarsters in Ibaka. Daarnaast is diversificatie in andere economische activiteiten, zoals het maken van dameskleding, de verbouw van groenten, voedselverwerking, geldschieten, verkoop van snacks en voedsel en kleine handel, gebruikelijk. De beter gesitueerde handelaarsters investeren in het transport over water, verhuur van uitrusting, geldleningen, of het openen van een cantine. De gekozen strategieën worden beïnvloed door zulke factoren als leeftijd, vaardigheden, ervaring, het hebben van werkkapitaal, opleidingsniveau, en aantal en leeftijden van kinderen. Jongere handelaarsters proberen andere vaardigheden en formeel onderwijs, de ouderen concentreren zich op het verhogen van hun inkomen door ontwikkeling van hun sociaal kapitaal, vergroting van hun netwerken en versterking van hun zakelijke connecties, en het onderwijs van hun kinderen.

De drie groepen vrouwelijke vishandelaars in Ibaka werden in deze studie al naar gelang de omvang van hun werkkapitaal verder onderscheiden in kleine, middelgrote of grote handelaars. Wat alle handelaars gemeen hebben is gebrek aan toegang tot hulpbronnen, gebrek aan infrastructurele faciliteiten, wijze van recruitering in de handel, betrokkenheid van familieleden, het gebruik van sociaal kapitaal en de aanwending van hun inkomen voor het levensonderhoud van hun huishouden. Er zijn echter ook belangrijke verschillen in leeftijd, opleiding, ervaringsduur, werkkapitaal en rijkdom tussen de drie onderscheiden groepen. De vrouwen die handelen in grote vis hebben meer ervaring, meer werkkapitaal en inkomen, en als gevolg daarvan meer bezittingen, dan handelaars in *bonga* en *crayfish*. De beperkte toegang tot hulpbronnen van de arme vishandelaars, in het bijzonder van de *bonga* groep, dwingt hen bovendien minder rendabele activiteiten te ontplooiën, zoals losse arbeid en verbouw van groenten voor eigen gebruik.

De studie laat zien dat de vishandel een vrouwenactiviteit is en de beste optie is voor de huishoudens in Ibaka om in hun levensonderhoud voorzien. De handel verschaft vrouwen

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inkomen ten behoeve van hun huishoudens en de bekostiging van het onderwijs van hun kinderen, betaling van ziektekosten en andere behoeften. Ondanks hun verschillende omstandigheden, belangen en mogelijkheden, worden de vishandelaarsters geconfronteerd met soortgelijke risico's, spanningen en tegenslagen die te maken hebben met de omgeving waarin ze opereren, zoals seizoenswisselingen, conflicten, de dreiging van HIV en AIDS, alsmede institutionele en culturele beperkingen. De institutionele beperkingen omvatten het gebrek aan fysieke infrastructurele and markt voorzieningen en de relatief hoge transactie- en arbeidskosten, terwijl de culturele beperkingen bestaan uit bepaalde geloofsovertuigingen, taboes, ethnische achtergrond, en normen en waarden met betrekking tot het gezin en de rol van vrouwen.

Aanpassing aan de institutionele beperkingen bestaat uit het kopen en verkopen op krediet, het gebruik van sociaal kapitaal, lidmaatschap van *osusu* groepen, gebruik van lokale geldschieters en gezinsarbeid, met inbegrip van minderjarige kinderen, het voor de huishoudelijke watervoorziening halen van water uit ondiepe putten en commerciële boorputten, en het consulteren van traditionale genezers en kerkelijke personen bij gezondheidsklachten. De aanpassingsstrategieën om met de culturele beperkingen om te gaan omvatten het aangaan huwelijksverbintenissen met autochtone inwoners, lidmaatschap van associaties en clubs, thuiswerken op feestdagen, het gescheiden houden van inkomens, en het streven naar onafhankelijkheid en autonomie.

De vishandel is seizoensgebonden, hetgeen bijdraagt aan de kwetsbaarheid ervan. Gedurende het slappe seizoen dat ongeveer zes maanden duurt, worden visactiviteiten voor alle vissoorten en daarmee het inkomen uit de visserij tot een minimum teruggebracht. Dit is het gevolg van visschaarste, de hoge prijzen die de handelaarsters voor de vis moeten betalen en het gebrek aan werkkapitaal. De meeste handelaarsters worden dan geconfronteerd met voedselgebrek in hun huishouden, hetgeen de kwetsbare positie van deze huishoudens illustreert. Daarnaast dragen ongevallen met vuur en conflicten verder bij aan hun kwetsbaarheid.

Deze studie laat zien dat toegang tot de vishandel via huwelijk en verwantschap verloopt, en dat alleen vrouwen die over de vereiste vaardigheden, werkkapitaal, en sociale netwerken beschikken en tot een bepaalde cultuur, locatie en ethnische groep behoren, kunnen participeren. Participatie wordt ook bepaald door huwelijks- en verwantschapsregels, de arbeidsdeling naar sexe, en gebruiken van vestiging en vererving. Bij gebrek aan goed functionerende instituties en geconfronteerd met verschillende culturele hindernissen, bedrijven de handelaarsters de vishandel – vaak gezien als liggend in het verlengde van huishoudelijke taken om in het onderhoud van het huishouden te voorzien – door hun sociaal kapitaal te gebruiken. Bronnen van sociaal kapitaal zijn verwanten, burens, vrienden, matroonclient relaties, onderling vertrouwen, *osusu* groepen, sociale clubs en verenigingen, normen en waarden, en de kerken.

Zoals de meeste rurale voedselmarkten in West Afrika, functioneert de Ibaka vismarkt zonder enige ondersteunende structuren. De markt mist infrastructurele voorzieningen en toegang tot informatie, en er is geen [rechtstreekse] communicatie tussen de vishandelaarsters en de consumenten. Verbetering van communicatie en infrastructuur, het voorzien in krediet mogelijkheden en toereikende informatie, zouden de transactiekosten verminderen en zorgen voor een beter coordinatiemechanisme in de markt. Gebleken is dat de vismarkt in Ikaba functioneert op basis van onvolledige handelsovereenkomsten en dat het onmogelijk is om van

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te voren overeenkomsten te sluiten over de mogelijke gebeurtenissen die de handel zouden kunnen beïnvloeden. Gegeven al deze tekortkomingen zou men kunnen spreken van een imperfecte markt. De vismarkt van Ibaka zou op basis van haar kenmerken ook kunnen worden gekarakteriseerd als *thin*, *incomplete*, en *interlocked*.

De studie laat zien dat het goed functioneren van handelaarsters in het economische domein vooral wordt bepaald door hun vermogen om voldoende werkkapitaal aan te trekken en te zorgen voor voldoende aanvoer van vis, het hebben van sociaal kapitaal, het aantal jaren ervaring, en de vaardigheden die ze zich eigen hebben gemaakt. In het huishoudelijk domein blijkt hun functioneren (vaak als feitelijk hoofd van het huishouden) uit het vermogen de kinderen te laten studeren, het soort huis en de energievoorziening die ze hebben, en de gezondheidsstoestand van de leden van het huishouden. De handelaarsters in grote vis en *crayfish* doen in het beide domeinen beter dan de handelaarsters in de *bonga* groep. Leeftijd speelt een positieve rol in alle groepen.

Het goed functioneren in het economische domein heeft een positieve invloed op het functioneren in het huishoudelijk domein, omdat voldoende inkomen de vrouwen in staat stelt goed voor henzelf en hun kinderen te zorgen, hun kinderen naar school te sturen, een goed huis te bouwen, en een generator voor verlichting en een petroleumstel voor het koken aan te schaffen. Vanwege het gebrek aan informatie over het voorkomen van HIV en AIDS in Ibaka is het moeilijk te zeggen in hoeverre de vrouwen het risico op besmetting met het virus lopen, hoewel we weten uit de literatuur dat – om verschillende redenen – vissersgemeenschappen relatief kwetsbaar zijn als het gaat om de risico's van HIV en AIDS.

Tot besluit kan worden geconstateerd dat de vrouwelijke vishandelaarsters kunnen opereren en overleven in de vissector vanwege de rigide arbeidsdeling naar sexe, welke wordt ondersteund door de wil van vrouwen om economisch onafhankelijk te zijn en daarmee de culturele obstakels van patriarchie, polygamie, en ongunstig erfrecht, te overwinnen. De vrouwen worden ook gedreven door de wil om voor zichzelf en hun kinderen te kunnen zorgen, en zich macht en autonomie te verwerven. Het feit dat de vissers zich realiseren dat ze voor de afzet van de vis volledig afhankelijk zijn van vrouwen, versterkt de positie van de vishandelaarsters in de visserij economie van Ibaka. De handelaarsters die er in slagen om winsten uit de handel om te zetten in eigendom van boten voor de visserij en watertransport, zijn echte ondernemers. Goed ondernemerschap uit zich ook in innovatieve manieren van het aanboren van kapitaal en het werven van nieuwe klanten. Voor de vrouwen is de uitbreiding van hun handel en het stijgen in de hiërarchie van vrouwelijke handelaars een veilige manier om hun positie te verbeteren, omdat ze daarmee binnen het als vrouwelijk aangemerkte domein blijven en geen bedreiging voor de mannen vormen.

Het feit dat de vishandelaarsters deel uitmaken van dezelfde gemeenschap en blootgesteld zijn aan dezelfde institutionele beperkingen en culturele belemmeringen, betekent niet dat er geen verschillen tussen drie groepen handelaarsters zijn. De beperkende factoren hebben verschillende invloed op het functioneren in de drie groepen en de strategische responses van de betrokken handelaarsters verschillen per groep. Milieufactoren, klimaatsverandering, olievervuiling, en de algemene economische crisis maken vissersgemeenschappen relatief kwetsbaar en de mensen in die gemeenschappen meer vatbaar voor HIV besmetting. In het ontwikkelingsbeleid van de regering is het belangrijk om afgelegen gemeenschappen zoals Ibaka specifieke aandacht te geven. Het verminderen van ongelijkheden tussen mannen en vrouwen

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moet ook een integraal onderdeel van beleid zijn. Dat zal de kwetsbaarheid van vrouwen *vis-à-vis* de risico's en beperkingen van het leven in arme rurale gemeenschappen verminderen.

About the Author

Ekaete Udong was born in Ikot Ubo, Nsit Ubium Local Government Area of Akwa Ibom State, Nigeria. She holds a Bachelor of Science (Hons) degree from the University of Ibadan in 1978 and a Master of Science in Zoology (majoring in fisheries and oceanography) from the University of Lagos in 1983. She started her studies for her doctorate degree at Wageningen University, The Netherlands, in 2005, as a scholar in the African Women Leaders in Agriculture and the Environment's (AWLAE) Research Programme on gender, food systems and HIV/AIDS in Africa. Her PhD research in the Niger Delta, Nigeria focused on the quest for sustainable livelihoods by women fish processors and traders in fishing communities, and the implications for food and livelihood security.

She has over twelve years' experience in policy formulation and implementation, having worked with the Federal Department of Fisheries, Federal Ministry of Agriculture and Rural Development on internationally funded projects implemented all over Nigeria. In 1990 she joined the then Nigerian Agricultural and Cooperative Bank, implementing various investment projects in the agricultural and fisheries sectors, as well as the microfinance scheme for fisherfolk in coastal and inland communities in Cross River and Akwa Ibom States of Nigeria. She has been a consultant and a development worker since retiring from public service in 1995. She has consulted on microfinance, gender, socio-economic issues, fisheries, small business development, investment promotion, agriculture and rural development issues for the national and state governments, as well as private organizations and individuals.

In 1998 she formed the Centre for Agriculture and Rural Development (CARD), an NGO dealing with gender issues, women and youth empowerment, agriculture and rural development, agro- and fish processing, business development and the environment. Through her work at CARD, she has represented Nigerian NGOs at sub-regional and regional fora on agriculture and the environment, as well as African NGOs on international events such as the NEPAD Summit in Nairobi, Kenya, and Johannesburg, South Africa, the World Summit on Sustainable Development, Johannesburg, South Africa and the World Food Summit- 5 years Later at the FAO, Rome. The NGO has collaborated with many stakeholders in implementing several development projects in communities in Akwa Ibom State and mentored many women and youth organizations.

She has held several leadership positions in professional organizations and in the society. She is currently the Second Vice President of the Fisheries Society of Nigeria. She is a Fellow of the Institute of Corporate Administrators of Nigeria, the Chairman of the Akwa Ibom State Library Board, a Member of the Nigerian Institute of Management, a Justice of the Peace in Akwa Ibom State, Nigeria and a Member, Board of Trustees, Human Aid Centre for Support and Development, an NGO based in Akwa Ibom State, Nigeria. Her humanitarian and development work in communities has earned her official recognition as a community leader. She is also a former President of the Nigerian Association of Women Entrepreneurs, Akwa Ibom State Chapter and former member of the Project Coordinating Unit (PCU), Nigeria, of the West African Sub-regional Fisheries Micro-projects Programme.

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Completed Training and Supervision Plan



Name of the course	Department/ Institute	Year	ECTS (1=28 hrs)
I. General part			
Research Methodology Workshop	MG3S	2005	2
Time Planning and Project Management	WGS PhD Course		1.5
Socio-Cultural Field Research Methods	MG3S	2005	3
Professional Communications Strategies	WGS PhD Course		1
Techniques for Writing & Presenting a Scientific Paper	WGS PhD Course		1.2
Grants Proposal Writing	WGS PhD Course	2009	2
Career Perspectives	WGS PhD Course	2005	1.6
Information Literacy	WGS PhD Course	2005	0.6
Scientific Publishing	WGS PhD Course	2006	0.3
Subtotal part I			11.1
II. Mansholt-specific part			
Mansholt Introductory Course	MG3S	2005	1
Mansholt Multi-disciplinary Seminar	MG3S	2008	1
Mansholt Peer Review Poster Presentation	MG3S	2009	1
Presentation at the MARE Conference on 'People and the Sea V', July 2009	Amsterdam, The Netherlands	2008	1
Presentation at TROPENTAG 2009 on "Biophysical and Socio-economic Frame Conditions for Sustainable Management of Land Resources and Water Bodies"	Hamburg, Germany	2009	1
Presentation at the 11 th PREBEM Conference on Blurring Boundaries within and between Organisations and Institutions, 2010	Nyenrode, The Netherlands	2010	1
Presentation at the 17 th International Conference for Feminist Economics (IAFFE), July 2010	Buenos Aires, Argentina	2010	1
Subtotal part II			7
III. Discipline-specific part			
Rural Gender Studies.	SCH 50306	2005	6
Theoretical Issues of Households and Gender.	SCH PhD Tutorial	2005	3
HIV/AIDS and Rural Livelihoods in Sub-Saharan Africa	MG3S	2005	3
Gendered Impacts of HIV/AIDS on Food Systems and Livelihoods in Sub-Saharan Africa.	SCH PhD Tutorial	2005	3
Microfinance and Marketing in Developing Countries	DEC 51806	2006	Attended
Policy Evaluation Methodology	WGS	2005	3
Thesis Proposal Writing	SCH	2006	4
International Course on Sustainable Development Diplomacy	WUR/SDF/TUFTS	2010	2
Subtotal part III			24
TOTAL			42.1

AWLAE

African Women Leaders in Agriculture and the Environment

The present thesis is one of a series. It represents the fruits of a collaboration between African Women Leaders in Agriculture and the Environment (AWLAE), Winrock International (WI), and Wageningen University and Research Centre (WUR). AWLAE is a pan-African program that aims at training women professionals in the fields of agriculture and environment, to redress the existing gap between male and female representation in professions relating to these fields. AWLAE was initiated by Winrock International in 1989. Its headquarters are in Nairobi, Kenya.

Between AWLAE, WI, and WUR a project was formulated that was submitted for funding to the Minister for Development Cooperation of the Netherlands Ministry of Foreign Affairs. The goal of the project was to build a cadre of well-trained African women professionals working in agriculture, environment and related sectors to enhance their academic standing and capacity to contribute to gender-relevant research and policy-making on the role of women in food systems and the gendered impacts of HIV/AIDS on food security and rural livelihoods in sub-Saharan Africa. In April 2002 the project was granted. The Ministry agreed to fund twenty PhD scholarships at Wageningen University and the additional leadership-in-change training for twenty women from eleven African countries, ranging from East to West and Southern Africa. In June 2002 an agreement was signed between AWLAE, represented by its Regional Director, and the Director of the WUR Social Sciences Group, after which implementation of the project could start. The participating scholars were carefully selected from a large number of applications. The scholarships were widely advertised in relevant media in countries with AWLAE chapters, and the chapters concerned were actively involved in the recruitment and selection of the candidates.

The following women participate(d) in the AWLAE scholarship project:

Susana Akrofi (Ghana)	Mariame Maiga (Ivory Coast)
Hirut Bekele (Ethiopia)	Lydia Ndirangu (Kenya)
Namizata Binaté Fofana (Ivory Coast)	Aifa Fatimata Ndoye Niane (Senegal)
Joyce Challe (Tanzania)	Faith Nguthi (Kenya)
Fatimata Dia Sow (Senegal)	Carolyne Nombo (Tanzania)
Stephanie Duku (Ghana)	Regina Ntumngia Nchang (Cameroon)
Rose Fagbemissi (Benin)	Daisy Onyige (Nigeria)
Kidist Gebreselassi (Ethiopia)	Gaynor Paradza (Zimbabwe)
Monica Karuhanga (Uganda)	Corrie du Preez (South Africa)
Doris Kakuru (Uganda)	Ekaete Udong (Nigeria)