



MARKETING AND DISTRIBUTION OF ARTISANAL FISHERIES IN THE GAMBIA

“Women as fish protein suppliers in The Gambia”



by

Anna Mbenga

Fiskerikandidat Oppgave
Master's Thesis in Fishery Science
Norwegian College of Fisheries
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TABLE OF CONTENTS

List of tables

List of figures

Acknowledgement

Map

Explanations of Gambian terminology

Chapter 1.0 Introduction	1
1.1 Structure of the Thesis	2
1.2 Research problem	4
1.3 Hypothetical Questions	5
1.4 Research Design and Methodology	5
1.5 Theoretical Perspectives	8
1.5.1 Marketing and Distribution of Artisanal Fisheries	9
1.5.2 Distribution and the "Banabana"	13
1.5.3 Women in Development ("Banabana" and as mothers)	14
1.5.4 Feminist Perspectives	16
Chapter 2.0 Fishery in Gambia	18
2.1 General background	18
2.1.1 The river	19
2.1.2 The climate	19
2.1.3 Agriculture	20
2.2 Fish resources, potential and actual yield	20
2.3 Overview of the fisheries policies and programmes	22
2.4 Description of the fisheries	23
2.4.1 The artisanal fisheries, employment and revenue	23
2.4.2 The industrial fisheries	26
2.5 Role of the fisheries sector in the national economy	27
2.5.1 Food production	27
2.5.2 Foreign exchange generation	28
2.5.3 Contribution to gross domestic production (G.D.P)	28

Chapter 3.0 Products, Processing, Technology and Gender	30
3.1 "Cold smoked" products	31
3.2 "Hot smoked" products	33
3.3 Dried fish products	38
Chapter 4.0 Marketing and Distribution of Specific	
Species by Men and Women	41
4.1 Marketing of the small pelagic fresh fish	41
4.2 Marketing of the fresh large demersal species	44
4.3 Marketing channels of cured products (large demersal species)	46
4.4 Marketing of the small cured pelagic and catfish	47
Chapter 5.0 Role of Women in the Artisanal Fisheries Sector	50
5.1 The woman as housewife/mother	51
5.2 The household of the fishing family	52
5.3 Women porters	54
5.4 Women as Fish Processors/Marketers	56
5.5 Women as financiers	58
5.6 Financing women activities	59
5.6.1 Tanji women fish processors	60
5.6.2 Serrer group	60
5.6.3 Jola group (a)	61
5.6.4 Jola group (b)	61
5.6.5 Tujereng/Batukunku fish processors	62
5.6.6 Mandinka group	63
Chapter 6.0 Socio-cultural Dimension of the Fish Marketing	64
6.1 The ethnicity of the fishing family	64
6.2 Conjugal relation and expectations	65
6.3 Importance of children in the fishing family	66
6.4 Importance of grandparents in the fishing family	66
6.5 Role specialisation within the fishing family	67
6.6 Relationship between the "banabana" and the fishermen	67
6.7 Women as "banabana" and their relationship with the fishermen	68

6.8 Men as "banabana" and their relation to the fishermen	69
Chapter 7.0 Conclusions and Recommendations	72
7.1 Development of Marketing and Distribution	73
7.1.1 Fish handling	73
7.1.2 Fish processing	74
7.1.3 Infrastructure	75
7.1.4 The importance of the "banabana"	77
7.2 Position of women in the artisanal fishery sector	79
7.2.1 Women cooperation	79
7.2.2 Cultural values of womanhood	80
7.2.3 Recommendations of credit facilities	81
Appendixes:	83
Questionnaire and interview guide	83
Tables	89
Bibliography	98

List of tables

1. Estimates of fish biomass, potential yields and catch estimates
2. The artisanal sub sector-evolution and structure;
 - (a) level of participation in the artisanal fishery
 - (b) level of canoe motorisation in the artisanal subsector
3. Artisanal and industrial production (tonnes)
4. Fish supply and consumption balance sheet (1986-1992)
5. Exports from the Gambia (1986-1990)
6. Revenue from fishing licence and fines
7. Women porters
8. Contribution to gross domestic production by industry ('000.000)

List of figures

1. Map of the Gambia
2. Marketing flow
3. Traditional smoking pit
4. Traditional smoking pan
5. Bonga arranged on racks ready to be smoked (hot smoked type)
6. Traditional smoke house made from Rhun palm
7. Chopped steaks of shark and skate : to be smoked
8. Traditional smoking hut
9. Improved smoke house with "chorkor" oven
10. Dry fish products with salt
11. Shark meat dried on racks without salt
12. Banabana with bicycle (cyclist)
13. "Banabana" using truck to transport his fish (trucker)
14. Women displaying their fish on concrete tables in the open at the market place
15. Bales/sacks of salted sun dry fish destined for rural inlandmarkets
16. Women selling "cold smoked" bonga at market
17. A woman who has evacuated the catch from a canoe, carrying it to a waiting truck.
18. A woman smoking fish in readiness to sell at a village/town market.

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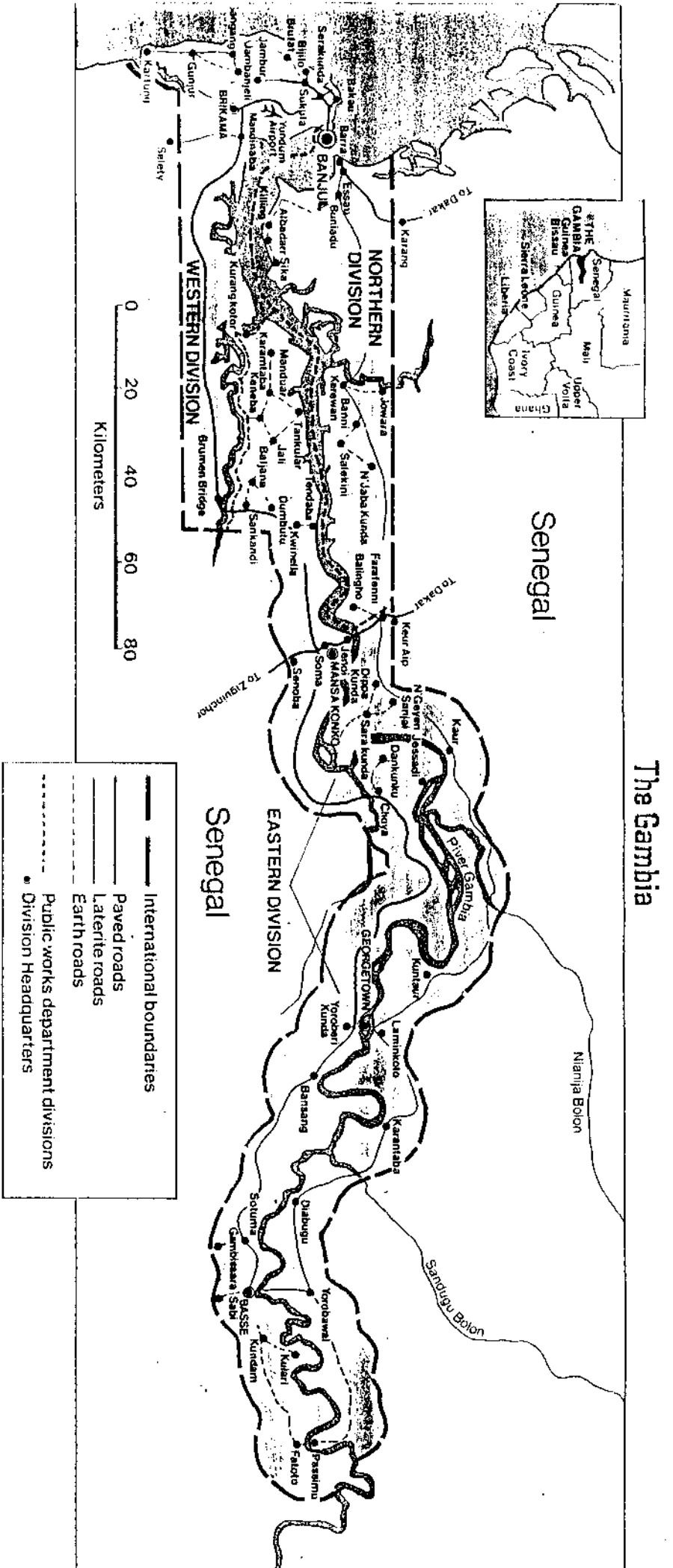
Finally, I would like to express my sincere thanks and appreciation to all the people who in diverse ways contributed into making this thesis. If I intend to mention names, there is the likelihood of omissions, and such a list may turn to be too long.

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Figure 1.
Map of The Gambia



Explanation of Gambian terminology used in the thesis

"Kafo"	an informal organization
"Osusu"	informal cooperative organization where members make contribution to a central "pot" such that at the end of each month one of the members receives the whole amount, the process continues until each member of the group takes their turn.
"Banabana"	middleman/intermediary
Chokor	an oven for smoking fish, a technology originally from Ghana
Ghana plak	is a kind of traditional canoe from Ghana

Names of informal women organizations:

Fisco Kafo

Jamoral Kafo

Sabari Kafo

1.0 INTRODUCTION

This thesis is a product of a five month research trip to The Gambia from January 15th to June 10th, 1993. The trip was specifically aimed to study and describe the marketing and distribution systems of the artisanal fisheries. During the process of this study I was impressed by the hard work put in by the women, and I began to develop interest in highlighting women's roles as wives and mothers, and their contribution to the fisheries sector, mainly as fish processors, distributing and marketing of fish products.

Fish marketing and distribution play an important role in the nutrition of the Gambian population and is, in essence one of the policy objectives of the government of the Gambia; to enhance the nutritional status of the population. Majority of the rural Gambian women were concentrated on agriculture (subsistence farming), mainly for the household. Few women were involved in the fishery sector a few years ago. Today the integration of Gambian women is an issue which relates to every sector of development in The Gambia. Historically fishing was mainly practised by two ethnic groups. At present many other ethnic groups are involved in the fisheries sector, fish supply still remains insufficient.

Programmes and projects put in place by the government to achieve better fish supply, and other policy objectives over the years have involved, among other things, the provision of incentives. These incentives included subsidy schemes such as removal of import duties on items or materials destined for the fishing industry to help in increasing the level of production. The other interventions by the government includes the provision of ice through the construction of ice plants and an appropriate transportation system for efficient movement and distribution of the produced fish, and the creation of credit facilities, among others (Department of Fisheries Gambia, 1993).

This thesis aims to look at how successful or otherwise this important aspects of the government's fisheries policy has been since its inception in 1985. I believe that in spite of the investments and programmes undertaken by the government, fish supply, its distribution and the marketing system of the artisanal fishery of The Gambia has not been performing efficiently enough to be able to achieve the stated objectives of enhancing the nutritional status of the population. The government has recognized the health problems as due to lack

of protein, and this was one of the reasons for providing these incentives, but it did not recognize the role of women in the distribution and marketing of the fish. In order to verify this claim institutions involved in fisheries activities in The Gambia were visited. Specifically, the Department of Fisheries was one major source of information for this study, supplying the necessary information or data available. The other major source was the fieldwork which gave data obtained by interviews and observations from the artisanal fishing community. These sources form the basis of the thesis.

1.1 Structure of the Thesis

The outline of the thesis will be as follows: In Chapter 1 the thesis presents the background to the research, highlighting among others, the theoretical considerations and concepts of the research problem. It goes further to explain the design and methodology of investigating and raising hypothetical questions. Chapter 2 gives an overview of the fisheries policy objectives of the country looking at some of the programmes and strategies put in place by the government. It further describes the resource potential, characteristics of the fisheries and the production. It would also attempt to determine the importance and contribution of the fisheries sector to the national economy. Specifically it focuses on its capacity to generate employment, foreign exchange, fish protein for local consumption, and over all, the contribution of the fisheries sector to Gross Domestic Product (GDP).

Chapter 3, 4 and 5 form the main thrust of this thesis. I will present the major part of my field work, the analysis of data collected on the field and the interpretations of my observations.

Chapter 3 aims to detail out the various fish products, processing technology and the gender pattern of the fisheries sector, highlighting their strengths and weakness. A few case studies for illustrations have been featured.

Chapter 4 will look at the marketing and distribution of specific species by men and women. Places where fish marketing and distribution takes place would be discussed as well as the perceived problems identified. It identifies a general lack of basic marketing infrastructure, and good road network. It also identifies lack of credit for women processors and

marketers, and inappropriate fish transportation methods and facilities. It goes further to highlight the important role played by the "banabana" within the marketing and the distribution network.

Chapter 5 will look at the role of women in the artisanal fisheries sector, it will discuss the inter-relationship in the fishery family. It would attempt to determine between the fisherman and the "banabana" who is exploiting who, if there is any form of exploitation in their relationship. The role of women as housewives and mothers, the household of the fishing family, their role as ancillary workers - porters, their role as processors and marketers and finally as financiers would be look at.

Chapter 6 will discuss the socio-cultural dimensions of the fish marketing by looking at the family relations and expectations, It will also look at the ethnicity of the fishing family, the conjugal relation and the expectations from the society, importance of children, believes and customs, importance of grandparents and the role specialisation within the fishing family.

Finally in chapter 7 the thesis draws up conclusions and recommendations it considers relevant and appropriate.

1.2 The Research Problem

There are several research problems to be analysed in this thesis, but the focus will be on the role of men and women in the marketing and distribution of fish and fish products, as well as the barriers and possibilities for an increased domestic fish supply.

It is a governmental goal to improve nutrition for the people through fish protein. During the course of this research one fact that was evident was the small quantity of fresh water fish on most of the markets visited inland. Since the fish landed inland is insufficient and the demand is high the emphasis on marketing should therefore help to improve the situation. Lawson (1984), however, advocates that before improving the marketing system it is essential that an understanding of the operation of the existing marketing system is achieved. In this thesis, I will try to find out the potential and limitations especially of women in their fish work as they are the main providers of fish for domestic use. Against this background I will formulate the following questions:

1. What is the cause of insufficient supply of fish ?
2. What is the present marketing and distribution system like?
3. Have the incentives put in place by the government helped in improving the situation ?
4. Do the women processors benefit from these incentives ?
5. What are the barriers that hinder the link between the product and the consumers ?
6. Since fish supply in the community is insufficient, will development in the marketing and distribution systems, and a fair distribution of credit, especially for women processors, improve the situation?

1.3 Hypothetical Questions

I assume that the marketing and distribution of fish is influenced by the gender roles in society. It is a system not only of flow of products but of important social relations. Three issues are raised concerning the social relations in marketing and distribution of fish.

They are formulated as follows:

1. Neighbourliness (kinship), helps the women processors in getting access to the fresh fish from boat owners. Here it concerns gender relations between man and women.
2. Neighbourliness (kinship) also helps in lending of tools, drying benches, and creation of informal traditional sources of credits "Kafos" or Osusu. Here it concerns cooperation among women.
3. How do the intermediaries "banabana" affect the marketing and the distribution network? This may differ in male-male relationship and in male-female relationships between fishermen and "banabana"

1.4 Research Design and Methodology

A research design helps us in formulating the design of the work to be approached before the actual field work, and it is up to the researcher to choose what method is appropriate for the research that will answer the questions and the hypothesis.

Methodology as a research process, is concerned with the logic of interpreting results and analysing findings (Giddens, 1989). Methodology helps in being aware of the problems and limitation of the research work, and according to Churchill (1991), the sources of information for a study and the research design go hand in hand. They both depend on how much is known about the problem. He further said that if little is known about the phenomenon to be investigated exploratory research will be warranted.

The problem defined is how to attain the policy objective of providing adequate fish to the local Gambian population. The strategies adopted are therefore to look at the marketing, focusing to a larger extent on women since they play an important role in processing the product easily marketable for the local markets. The study utilises the course perspective (Churchill, 1991), to analyse the production process, the marketing and distribution channels, available storage facilities, fish traders and their methods of transportation as well as the gender roles within the systems. This will attempt to bring to light the reason(s) why there is an insufficient fish supply on the Gambian market.

In this study questionnaire survey (one form of exploratory research), secondary data collection, participatory research and observation were used to help explore the research problem. According to Moser and Kalton (1981), data collection is a means of collecting information, and the choice of method is governed by the subject matter. The subject matter in this study is the domestic role (household), the cooperational network between husband and wife and between "banabanas", the economic role, family life, financial support and the channels of marketing and distribution.

In carrying out the research work one major fish landing site was selected along the Atlantic coast. A village called Gunjur, situated about 50 kilometres from the city of Banjul (figure 1) was visited on separate occasions where interviews were conducted. I have also visited almost all the landing sites and market places in the Northern Division, Western Division and the Eastern Division. Primary data was collected by interviews with the help of my research assistants from the Gambian Fisheries Department. Most of the time the research team set out to Gunjur where we would spend the whole day interviewing or observing.

It was not easy to interview the women processors at the beginning; they were very busy and I was a complete stranger to them. After a few visits they welcomed and cooperated with me to the end.

On certain occasions I could not interview, because people were so busy that interviewing was not possible, especially when the boats are in the process of landing and women carriers rushing with their pans to carry the fish, and the "banabana" preparing to haggle over price with the fishermen. Then I observed the activities taking place, both on the beach and/or

smoke houses. The beach was full of people from morning to evening ranging from small children to elderly men and women engaged in various activities including offloading of fish from canoes and loading of fish into trucks. On other occasions I would sit together with both male and female respondents in informal conversation to obtain extra information on mainly household and family affairs. I do not understand some of the other local languages, For example Mandinka, Serrer, etc. I had to travel with my research assistants when I went to different village markets/processing houses in order to get help with the translations. There are more than seven ethnic groups in the Gambia, and hence research assistants were needed in translating and administering questions when necessary. Sometimes I would go out of the questionnaires and ask questions which I thought were of relevance.

Sometimes we faced transport difficulties; Buses and taxies were not always available. On several occasions transport was provided for us by the Department of Fisheries and trips were made to the provinces as far inland as Basse, more than 320 km from the Atlantic coast. Intermediate villages where landing/ marketing of fish takes place were also visited. The map of the Gambia (figure 1) shows the location of Gunjur and other villages where distribution and marketing of fish takes place. On two occasions we followed a refrigerated truck that belongs to the Fisheries Department on its journey to the provinces to study the marketing method at first hand.

Secondary data were obtained from the Department of Fisheries from both published and unpublished material and from discussions with fisheries personnel. The Central Statistics Department was visited several times to collect information on other economic sectors of the country, and also the Central Bank of the Gambia provided information on the economic performance of the Gambia. Other sources of information included the Gambian Ministry of Natural Resources and the Centre for Oceanographic Research in Dakar, Senegal. From the industry, sources of information included the fishing companies such as the National Partnership Enterprises LTD and the artisanal fishermen.

Two weeks after my arrival in The Gambia I was invited to attend a workshop organised by the Department of Fisheries, the FAO/DANIDA Project on Integrated Development of Artisanal Fisheries in West Africa (IDAF). About twenty countries in West Africa participated in the workshop for a week, from the first to the seventh of February 1993.

Some of the materials used in this study were from this workshop.

1.5 Theoretical Perspectives

To support the attempt to explain the factors that affect the supply of fish protein in The Gambia, the conceptual framework for this study will be discussed here. Two aspects are in focus:

1. Marketing and Distribution of Artisanal Fisheries
2. Women in development and the feminist perspective, focusing on the role of women fish processors.

These aspects are basic in answering the question why there is insufficient fish supply in The Gambia. This chapter looks at the theoretical work of other researchers. It looks through different perspectives to find the relevance or irrelevance of other researchers theories and view points in relation to The Gambian system. Since women are the primary actors in domestic fish protein supply in The Gambia, I shall focus on theories written on women and development. This can support the attempt to identify the possibilities and barriers for the success of the women in improving fish protein supply.

The Gambia's territorial waters are believed to be one of most productive fishing grounds in West Africa; the cool Canary and Benguela Currents wash the coast and make the shelf area a productive fishing ground (African Development Fund, 1983). Lot of fish is landed around the coastal area. Then the question arises, "why is the supply of fish not meeting the people's demand" ? (Gambia government, 1985).

Actors of the processed products which are cheaper to store, easily transported and marketed for both the coast and inland markets must be given some attention.

Bacle and Cecil (1990) define the artisans to be actors working for themselves, alone, or with the help of family and few companions. In their writing they also point out that in

artisanal fishing the active members of the processing and marketing of fish are often neglected. If improvement is to be obtained, attention must be given to these people, which in the Gambia are the women. In discussing women as processors, the other roles they play cannot be left out, for example the household core, since it is a work combination in their day to day life. Because of gender responsibilities and the type of cooperation taking place in the household, Illo and Veneracio (1988); Dey (1983) and Houndekon, Tempelman and Ijff (1990) say that the work combination done by women unable them to increase their production. Women are found to be combining different kinds of work daily (washing, shopping, cooking, cleaning, farming, processing, marketing etc.). This is a load on them and it has some effect on their progress in the processing, distribution and marketing sphere. Since most of them did not call these work combination a workload upon themselves but their responsibility, I could not go deeper in discussing how this deteriorate their production. For them their production limit is seen mainly in lack of credits.

1.5.1 Marketing and Distribution of Artisanal Fisheries

Lawson (1984) notes that the scale of fish marketing is likely to be smallest and the number of landing functionalities greatest, where fisheries are small in scale and landings are made at highly dispersed points some distance from most consumers. Poor infrastructure, especially roads, may also limit the spatial distribution of fish.

In The Gambia the landing sites are dispersed, among other reasons the scale of marketing is small. This is a problem as outlined by Lawson and the poor roads are barriers for both the distribution and marketing of fish and fish products. There are several other barriers like credits for women processors, storage facilities, ice for keeping the fish fresh especially when transporting them to long distant markets, work load on women processors, etc. These barriers will be discussed in the later chapters.

Barrett (1988), describes The Gambian markets as two geographical parts concerning the marketing of fresh fish. Firstly, the areas within relatively easy reach of the Atlantic and estuarine fishing villages, namely the Banjul and Kombo regions, and secondly the rest of the country which is primarily supplied from the river and its tributaries.

The two geographical parts described can be categorized as three types of markets; rural, peri-urban and urban. The urban markets are bigger with readily available and plentiful supply of fish and fish products from the Atlantic coast and river estuary. The peri-urban are in between the urban and the rural with better access to fish supply than the rural inland markets. As one moves east towards the rural inland markets the situation rapidly deteriorates. This is also described by Barrett (1988), that the whole of Gambia is served by market places, but the network cannot be regarded as a "system". He pointed out that the functions of the marketing connections only occurs in the western parts of the country, around the urban centres (coastal area).

Fish markets have developed within set patterns and norms based on relationships. In order to get a better understanding of these relations, and how they influence the process of buying and selling, some social and cultural perspectives need to be looked at (discussed in chapter 6).

In his writing Kotler (1991), defines marketing as a social and managerial process by which individuals and groups obtain what they need and want through creating, offering and exchanging products of value with others. He further mentioned four P's of marketing mix: "product, price, place and promotion".

By product he means quality of the product, sizes, brand name, returns, etc. By price he means, discounts, allowances, payment, period, credits etc. By place he means, channels, inventory, location, transport, etc. and by promotion he means sales promotion, advertising, sales force, public relations etc. In order to be successful in marketing these 4 P's need to be given some attention.

Kotlers argument is developed on the basis of research in the western societies. In the Gambian society promotion does not exist in the artisanal fisheries as it is done in the West. This is done through personal contacts, and with the "banabana" cyclists who ring their bells continuously to advertise or indicate their presence. For the truckers they blow their horns as they reach a village where they should drop some fish for sales. This blowing of the horn tells every potential customer that the fish has arrived and the word start spreading within the village. Very soon those who wish to buy will converge at the selling point. In discussing place many problems are faced. Transportation is poor in the Gambia and the roads are bad.

The location of some of the village markets is sometimes difficult to reach. Most of the distributors face lots of problems in trying to reach the customers. Normally they unload the bulks of fish along the main road where retailers would collect them and transport them further to the village markets. In discussing products brand name, and size do not exist in the local markets. The quality of the product is accepted as far as the product can be consumed. As Kotler define price; price in the Gambia could also be define as payment, discounts, credit etc. In the Gambia prices are affected by many social factors which would be discussed in the later chapters.

I would further argue that in many countries including the Gambia marketing flow is not only a question of communication, information, and exchange of goods and money (figure 2) as outlined by Chaston (1987) and Kotler (1991). The difference between theories derived from the Western world and African settings, is that in the West the market is an abstract concept whereas in Africa the market is a concrete concept. It is a physical place for trade and also a place for social gathering and building up of friendship. It is a place to discuss family affairs, as well as meeting place where lending and paying back of debts take place.

Chaston (1987) advocates that for a permanent relationship to exist between producer and customer, some form of institutional structure must be created. The flow of information between those involved over price and availability of the product is of importance as well as mutual agreement over the conditions of sale. A diagram showing a transactional flow of a product and payment is indicated overleaf.

Marketing flow

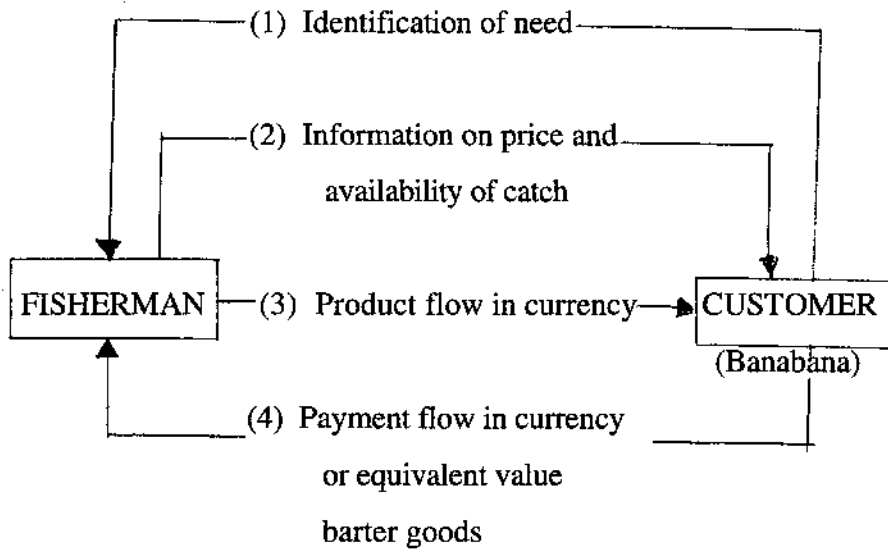


Figure 2. A marketing system for a producer and consumer in the same location (Chaston, 1987).

The mutual agreements, conditions of sale mentioned above by Cateora (1990) is referred to as negotiation. He outline that it is a view towards reaching an agreement. It is a give-and- take discussion resulting in a mutually beneficial relationship, and in many developing countries is referred to bargaining. This is terminated when an mutual agreement cannot be meet. Friendliness build at market places help in bargaining for price reduction and it is normal and accepted to bargain which is one of the key strategies to bring down price to the buyer. In The Gambia, this is acceptable and positive.

In theory the price always reflects what is best for the buyer and the seller. I will argue that it is beneficial especially for those living (upper river) inland with low income to obtain their needs. A real price is always what is accepted by the seller, it does not only depend on the 4 P's but also depends on family ties and other social and cultural factors. Religion background and family ties forces one to act different towards another Gambian fellow in trades. An example is where one have to reduce the price of fish or lend out money due to some kind of relationship normally some religious words are used in showing gratitude or

gratefulness. It is important to recognize that the attitudes brought to negotiating table by each individual are affected by many factors unknown to other individuals or perhaps unrecognized by the individuals themselves and this could be due to social life, ideas of right and wrong, and economic problems (Cateora, 1990).

1.5.2 Distribution and the "banabana" .

In reality, when the location of a processor is not relatively close to the final markets, the perishability of the raw material, the diversity of the end-user needs and the seasonality of catch, combine to form a set of variables which are costly to manage (Johnsen 1992; Chaston 1987).

It is rare in today's society that the location of a producer and the final customer permits direct trade between them which has also been noted by Lawson (1984). Typically they execute a transaction through one or more intermediaries "banabana" or wholesalers who may be severely criticized by some primary producers who claim that wholesalers place excessive mark-ups on the product and thus reduce customers demand.

Merlijn (1988) notes in her discussion of the Pusa middleman system, that the middlemen provide loans to boat owners without charging any explicit interest rate; moreover, no securities in the form of property are asked and all form of transactions are handled on an informal, verbal basis, without paperwork. The one implicit condition is the moral obligation of the fisherman to sell all his catches to the trader to whom he is indebted. The fishermen are not concerned about the exact amount of indebtedness; the dealers are often similarly vague. This "vagueness" about outstanding debts reflects the basic stake at the root of the debt relationship. The middlemen are basically interested in persistence of this relationship, and use the loan in order to maintain access to the fisherman's catches.

The trader financier as Lawson (1984) call the middleman must be seen as a complementary commercial activity. It is true that under certain conditions, various degrees of monopoly, monopsony or oligopoly do exist but these are not necessarily exploitative or always resented by fishermen. He concludes that the fishermen and the middleman have a mutual

beneficial symbiotic relationship, which operates smoothly in a traditional environment.

I will argue that even though the "banabana" has some negative effects on the fisherman, they still play an important role, that is providing loans to the fishermen, marketing his catch and easing the connection between the customer and the producer. Besides any interference in this environment is bound to be resented by all parties, because the lower the level of economic development the greater is the importance of traditional social structure. The fishermen and the "banabana" relation is also a relation of social and cultural value exchanges.

1.5.3 Women in development ("banabana" and as mothers)

In discussing the Ghanaian system of operation Overå (1992) mentions that the middleman exploits the fisherman particularly when he is related to the fisherman. In the Gambian system of operation the "banabana" (especially where it is a woman) may be a wife, sister-in-law or some form of a relative of the fisherman. This tie relation does not mean that they get price reduction easier than other customers. As it happens though sometimes, the price can be reduced especially after a long haggle which indeed applies to everyone and not only wives or relatives of the fisherman. Hagglng for price reduction in the Gambia is culturally acceptable.

Therefore, contrary to Overå's claim that the middleman exploits the fisherman, in The Gambia it is not necessarily the case. In my view, especially where the intermediary/"banabana" is the wife of the fisherman, it is she who is exploited. Normally when the fisherman lands with his catch and sells it to his wife "banabana", he goes home to rest. The "banabana" remains either to process the fish or travel with it to the market. She might spend 4-5 hours trying to sell the product, and from there, it is her responsibility to prepare the day's meals and do the other household chores.

The improvement of fish supply and protein nutrition in The Gambia may be seen as development where women are in focus. Theories on women and development thus are relevant to discuss. In discussing women and development, Stølen (1991) problematize what

is considered to be good for poor women in developing countries. In women's own view this is often based on what is considered legitimate and illegitimate gender roles. In her argument she use the example of an agricultural project supported by a Danish NGO in Honduras, Central America. Here the objective of the project was to integrate women and to promote the establishment of agricultural cooperatives for women based on land rented from men.

Some women took the challenge but they were not very happy about it because, they gave more priority to their domestic work, agricultural work is considered to be men's work.

I would argue that in some situations what Western development officials consider to be a problem for women in developing countries are not always conceived as a problem by them. The work load done by women in The Gambia, that is combining the domestic work, processing and marketing of the fish products for the local markets, etc if they were to exchange these duties with their husbands some might not accept it but they would appreciate their help because their definition of the good life is associated with domesticity and motherhood. The participation of males in household chores, could alleviate their domestic duties.

In discussing development aid, Boserup (1970), Rogers (1980) and Moore (1988) for example have noted how development efforts in many cases have led to the destruction of women's traditional rights in society and undermined their economic autonomy in relation to men. In some of these writings there are scepticism towards development interventions as well as the tendency to idealise traditional societies.

Women normally have limited income, and access to institutional credits which result in dependency on men. Normally men's needs and demands seem to be listened to before women's needs and demands.

1.5.4 Feminist perspectives

Feminism is both an ideology and has become a political movement. Women are suppressed, and society is organized around the interest of men (Overå, 1992). In addition to what Overå said I will say that feminism is also a theoretical approach.

The goal of feminist research is to clarify the different ways in which women are suppressed and how they can overcome the suppression. The political aspect is the struggle in forwarding the interests of women.

In the 1960's feminist political goals focused on establishing women as equal to men. Many theories have been written by the feminist scholars and several traditions have emerged: Liberal- feminist tradition, marxist feminism, socialist feminism, cultural feminism etc., are all similar in that they all focus on the oppression of women in society even though they differ in their definition of the causes of women's oppression as well as in the solutions they offer for societal or individual change (Ollenburger and Moore 1992).

In discussing women's suppression in marxist, radical and socialist feminist perspective I find that there are characteristic traits which are supportive in showing that women are also oppressed in the Gambian fishery family and this is done through sexual division of labour, dependency on financial support, unpaid labour in the home and lack of attention from the government especially in their economic role. The domestic work, child caring, etc. is categorized in The Gambian society as women's duty, and women accept these duties as their responsibility. Their economic role (as fish processors and marketers) is limited due to lack of credit from the government institutions in order to increase their production. In this case they tend to be dependent on men for credits. Women combine the economic role and the domestic role as a strategy in trying to pursue meaningful lives. I will say that if equal opportunities are given, they will succeed.

Theories are tools to explain and to help us understand the world around us; that is economic problems, education, technical-know-how, women position in society etc. Different theories are used to seek the understanding of the position of women in different societies with the intention of trying to see where the Gambian fish processors and

marketers stand when it comes to the problems and barriers of improving the supply of fish protein. My work relates as well to women and development which means gender roles in the household and society and to marketing of fish and thus the natural conditions given in The Gambia.

2.0 FISHERY IN THE GAMBIA

2.1 General background

The Gambia lies on the west coast of Africa between latitude 13 and 14 degrees north. The country is a strip of territory jutting into Senegal. It has an area of 10,600 sq km. The country is divided into two by the Gambia River which is 50km at its greatest width (around the coast) and narrower towards the east (width 30km). The capital Banjul is situated on the St. Mary's Island at the mouth of the river and is connected to the main land by a bridge. The country is divided into the North Bank Division, the Lower River Division, Western Division, MacCarthy Island Division and the Upper River Division.

The Gambia has a population of 1 million and a population density of 61/Km square, with 80% of the population living in the rural areas and 85% of the population are muslim. The population growth rate is considered to be one of the highest in Africa (African Development Fund 1983). The Gambia has about 12 ethnic groups, with of course different cultures and languages. The ethnic groups include Mandinka, Wolof, Serere, Lebu, Jola, Fula/Paul, Sarahulie etc. The Mandinkas constitute about 40% of the total population, particularly in the rural areas, and in the Kombo St.Mary area, western lower river and the North Bank Division. The fulani are mainly concentrated in the Fulladu district in the MacCarthy Island Division and Upper River Division, with the Wolofs found mainly in Banjul and some part of the North Bank Division.

Each of these ethnic groups has its main economic role; the majority of the Mandinkas are farmers, the men cultivating cash crops, for example groundnuts and cotton whilst the women do rice cultivation. Some of the men combine farming and fishing. The women farmers are also sometimes fish mongers. The Fulanis are normally cattle herders and the Serere and the Lebus are traditionally known for fishing. The Jolas are oyster harvester, farmers and fisherwomen but process palm oil too.

In discussing the general background I will briefly discuss the river, climate and agriculture since they play an important role in the day to day lives of the people. Here I am referring to the farmers who have tended to participate in the fisheries sector, due to the effects of

unfavourable climate for agriculture, among other reasons.

2.1.1 The River

The river is one of the most navigable rivers in West Africa, and has its source from the Fouta Jallon Mountain, in Guinea Conakry, flowing through Senegal and Guinea Bissau with approximately 450km of its total length flowing through the Gambia. Ocean going vessels can go 250km up the river and small boats 80km further. It is one of the most important geographical features of the country and is reputed to be rich in fishery resources.

2.1.2 The Climate

Seasonal variation play an important role on the lives of the people, especially on the lives of the farmers and the fisherfolk.

The climate is 'Sahelian' and has two different seasons, dry and wet seasons. The wet/rainy season starts from June to October. The rainy season is the cropping period for all farmers. The rainy season is highly variable with reduction of about 50% in the past century due to a cycle of drought now and then (S. Langaas, 1987). This phenomenon could be attributed to the environmental problem of deforestation, among other reasons.

The dry season is from November to May. From November to February the north-east trade winds or the cold dry hammatan wind blows southwards from the Sahara Desert causing dryness and soil moisture deficiency. This season is the more favourable for the fisherfolk, fishing, processing and marketing. Fish landing sites are busy with people ("Banabanas", processors, marketers and consumers) rushing here and there in order to get access to the fish. Processors busy smoking or drying their fish under the hot sun, marketers siting in rows at the market centres to sell their products.

2.1.3 Agriculture

Agriculture is the backbone of the economy, employing over three quarters of the labour force. In 1988 agriculture contributed 59.4% of the foreign exchange earnings, but dropped to 47% and 53.9% in 1989 and 1990 respectively due to the effects caused by the vagaries of the weather. Agriculture involves mainly crop farming, livestock, forestry and fisheries. Ministry of External Affairs, 1989.

The crops cultivated in the Gambia are mainly groundnuts, rice, maize, cassava, beans and vegetables like tomatoes, pepper, okra, garden-eggs, spinach, cabbages etc. The cash crops produced are mainly groundnuts and cotton.

Farmers depend on rainfed agriculture, and therefore do not farm all year round. Both men and women are engaged in farming. Men cultivate cash crop, mostly for the export markets and women normally cultivate for the local markets and for home consumption.

During the drought years most of the farmers (both men and women) were economically handicapped, and thus many of them turned to the fisheries, combining agriculture and the fisheries. Today many of the fisherfolk are also farmers, cultivating crops during the rainy season and fishing during the dry season. I will discuss this more in chapters 5 & 6.

2.2 Fish resources, Potential and actual Yield

The Gambia has a continental shelf area of approximately 3900Km square, and it makes up 14% of the total shelf of Senegal and The Gambia. This area is believed to be one of the richest fishing grounds in the West African sub-region. In addition to the marine resources the fresh water resources include the River Gambia and its tributaries representing 20% of the country's total area of 10,600km square. Information on the potential resources is constrained by inadequate technical and financial resources necessary to conduct a comprehensive and in depth resource assessment study. Thus estimates of potential yields (especially of the inland fresh water stocks) are at best indicative figures derived from results of operational surveys (Fisheries Department of Gambia, 1992).

Table 1 shows estimates of fish biomass, potential yield, and production. The marine and estuarine fish stocks in the Gambia are basically the pelagic and demersal stocks, including crustaceans and mollusca. Various studies have attempted to provide estimates of the fish biomass in both Gambian and Senegalese fishing zones. The most recent study (Fisheries Department of The Gambia, 1993CRODT/IMR, 1992) put the estimate of the pelagic yield at 60,000 metric tonnes and demersal yield at 15,000 metric tonnes for The Gambia. Estimates for both stocks for Senegal were 600,000 metric tonnes for pelagic and 53,000 metric tonnes for demersal species.

The species composition of the pelagic include specifically the "bonga" (Ethmalosa fimbriata), the sardine (Sardinella Spp.), and the horse mackerel (Trachurus Spp.) forming the dominant groups. Other pelagic stocks include the migratory yellow fin tuna (Neothunus macropterus), and the big eye tuna (Thunus obesus) which occasionally migrate across the Gambian continental shelf. In The Gambia the artisanal fishery lands more of the pelagic, particularly Bonga (E.fimbriata) and "Ya Boye" (Sardinella Spp.) than it lands the demersal species. It is believed that the "Ya Boye" stocks are under exploited considering the potential yield and of pelagic stocks. Only one industrial company in The Gambia used to harvest the "Ya Boye" (sardinella species), for export to Ghana, in West Africa, but this has stopped since the company collapsed in 1991 (Department of Fisheries Gambia, 1993).

The demersal species within the Gambian continental shelf are represented by the grunts (Pomadasys Spp.), Seabreams (Dentex Spp.) Croakers (Pseudotolithus Spp.), the Cephalopods (Sepia and Octopus Spp.), and Crustaceans including the shrimps (Penaeus Spp.) etc.

Lopez et al (1987) observed that the most abundant group is the seabreams. This group is followed by the grunt. With an estimated potential yield of 15,000 tonnes. The Department of Fisheries assume that there is a likelihood of overfishing. This is even more likely because the demersal species are the target species of the industrial subsector. The precarious state of the demersal stocks underscores the need for appropriate regulatory measures to ease the pressure on these species.

Similarly, to marine resources no empirical survey data exist on the riverine resources, the

2,700 metric tonnes (table 1) being at best, a guess estimate (Department of Fisheries, Gambia).

2.3 Overview of the Fisheries Policies and Programmes

Due to the problems experienced by the agriculture sector as highlighted above, the Government of The Gambia redefined and established its fisheries sector policy. The development objectives for the fisheries sector were included in its first five year development plan (1975-1980). These objectives set the direction for government intervention during the last half of the 1970s. The objectives were as follows:

1. To effect a rational and long term utilization of the fisheries resources;
2. To increase employment in the sector;
3. *To enhance the nutritional status of the population;*
4. To enhance the foreign exchange earning capacity of the country;
5. To increase the participation of private Gambian entrepreneurs;

Consequently, in 1977 the Fisheries Act was enacted to develop and manage the fisheries, and government investment into the sector increased significantly in both human and financial resources. The capacity of the Fisheries Department to effectively manage the sector was regarded as important.

From a Division within the Ministry of Agriculture and Natural Resources in 1977, the Fisheries Department was created. Its staff compliment of 30 increased to 100 in 1990 under the Ministry of Natural resources and the Environment. The government provided incentives including credit facilities especially for the artisanal subsector. In 1985 the government removed the duty on export of fish and fish products. Import duty was also removed on any input destined for the fishing industry, and this included fuel for the artisanal and industrial

subsectors. After the provision of incentives by the government the participation of the Gambian businessmen increased. The shore landing and other infrastructural facilities for the industrial subsector and Companies were either created or strengthened, such as the Seagull Cold Stores, and National Partnership Enterprise (N.P.E)

Unfortunately the incentives benefited more the private enterprises, the fishermen and not the distributors, especially the women processors and marketers. This might be one of the reasons why the government cannot fulfil the third goal; the enhancement of the nutritional status of the population. The third goal will be further discussed in chapter 5.

It is believed that the River Gambia is rich in fish resources. The question is why is there insufficient fish supply in the country? This thesis will explore the present marketing situation and distribution network, since these two things link the producer and the consumer in order to understand the reasons for the problem.

2.4 Description of the Fisheries

2.4.1 Artisanal Fisheries, Employment and Revenue

The Gambian fishing industry can be conveniently separated into two: the artisanal and industrial subsectors. The artisanal subsector refers to those fishermen (both national and foreigners) operating in small units of a few fishermen or on individual basis employing less equipment and technology. The majority of the Gambian fishermen are full time fishermen. The part time fishermen combine fishing and farming or with other kind of business (table 2A). Basically this subsector uses mainly planked and or dug-out piroques, and motorise canoes is generally less than the unmotorize canoes (table 2B). Most of the motorised canoes are foreign. The majority of the Gambian fishermen fish with unmotorized canoes. In 1986 there was an decrease both in the Gambian canoes and the foreign canoes, which could have been due to technical problems (spare parts), regulations from the Fisheries department, etc. From 1987 there was a increase in the amount of canoes registered, but still the foreign motorized canoes were higher than the number of Gambian motorized canoes. This is a disadvantage towards the Gambian fishermen. Normally motorization allow an

improvement in the working conditions. It also led to a reduction of physical efforts and has allowed fishermen to go further and faster.

In spite of the small-scale nature of its operations, the artisanal subsector provides 95% of the total local fish consumption (Department of Fisheries, unpublished). It also provides shrimps and other high value species to the industrial subsector (some local companies) to process and almost all the shrimps are exported to Europe to generate foreign currency. Part of the shrimps consumed within the country, mainly by the hotels. There are a few companies (National Partnership Enterprise and Lie Fish) who have trawlers fishing for shrimps to supply their factories. This is an addition to those produced by the artisanal sector (canoes). Therefore these few companies have two sources for their shrimp supply. Thus creating a vital linkage between the two subsectors. Generally, the artisanal production is either battered or marketed without any form of official recording which make economic evaluation of the out put difficult. None-the-less, indication of the social and economic values of the sector are numerous, employing a large number of people including women. Since almost all the production is exported its contribution to the protein supply is small.

Table 3 presents the annual production of the two subsectors. The percentage contribution of the artisanal subsector to the total national catch has been impressive, ranging from 54.5% in 1987 to a maximum of 95.1% in 1986 and an annual mean production of 16,490 tonnes. (Department of Fisheries, Gambia, unpublished). This show how little the inland contributes to the total fish production. It indicates therefore that most of the fish caught in the Gambia is from the marine (Atlantic Ocean). This further means that if fish is to be eaten inland (province) it must be supplied from the marine because the inland production is so low and can not meet the requirement.

The artisanal contribution to the total fish production (1986) is 13,636 tonnes and the industrial catch is 665.7 tonnes . The industrial subtract from the artisanal would be equal to 12970.3 produced by the artisanal operators. Expressing this in percentage would be equal to 95.1%. This means therefore that for 1986, the artisanal sector contributed 95.1% of the total fish caught in The Gambia. This analysis shows the importance of the small-scale artisanal canoes compared with the large-scale industrial sector. It also shows that the artisanal sector contributed a minimum of 54.5% of the total fish caught in The Gambia

(1987-see table 3). From 1986-1992 its contribution range from 54.5%-95.1%. The fluctuation in production can be due to several reason:

1. Poor statistical coverage in the years with drop in production.
2. Better coverage in the years with increases in production.
3. Actual increase in production in those years.
4. Actual decrease in production in those years.

Any of these could be the reason for the fluctuation. I will conclude by saying that statistical data is not generally 100% accurate so the fluctuation could be ruled out.

The marketing of fish in The Gambia is not normally weighed.

The price of fish varies from species to species. White fish is normally more expensive and it is normally sold in steaks. The Bonga (*E. fimbriate*) species are normally half the prices of the large white fishes and it is sold in whole (approximately 4-5 small Bonga is 1 Kg). The prices of fish will be discuss in chapter 4.

Although the artisanal subsector has little direct foreign exchange earning records, it provides substantial employment opportunities for fishermen, processors and “banabana”. Table 2A indicates the number of fishermen engaged in the subsector. Because of the part-time nature of some of the activities, the quoted employment figures are subject to wide seasonal fluctuations. According to the Fisheries Department, (unpublished) in 1985 a total of 4,800 fishermen and ancillary workers were engaged in the artisanal subsector, 3,000 along the coast and 1,800 within the inland sector.

2.4.2 Industrial Fisheries

This subsector is dominated by large-scale private sector production. It processes and exports its products of high value fish species such as shrimps into Europe and America. However in 1970, a joint venture between the Gambian government and a private Ghanaian company created the Seagull Cold Stores, specialising in catching, processing and exporting the small pelagic, *Sardinella Spp.* to Ghana. The company however ceased operating in 1991.

There are now twelve registered local companies but only four of these can be considered as viable enterprises with relatively adequate shore facilities (table 4). The rest lack either their own fishing vessels, or appropriate on-shore facilities or both. The industrial companies enter into licensing agreements with distant water fleets from Africa, Europe and Asia. This involves essentially the acquisition of Gambian licences by these distant water fleets through the local Gambian companies.

The main bulk of the industrial production is destined for overseas markets. A small part of the its production is destined for domestic fish consumption. The major contribution of the subsector lies in its foreign exchange earning potentials and its employment generating capacity.

The creation of employment is one of the main policy objectives of the Gambian government. An estimated 1,500 were employed by the industrial subsector in 1987 (Department of Fisheries, unpublished).

The production of this sector is mainly for export, and so the net benefit of the sector to the economy accrues mainly from the payment of licence fees. Government revenue from licences and fines from 1987-92 is shown in (table 7). The highest realised from the licensing was a total D4.3 million in 1991. (Central Statistics Department, 1991).

In terms of contribution to locally generated revenue to the government, the Fisheries sector has been performing significantly. The highest contribution 4.9% (table 6).

2.5 Role of the Fisheries Sector in the National Economy

2.5.1 Food Production

Table 5 presents the fish supply and consumption balance sheet for The Gambia Domestic fish production from 1986 to 1992 showed a fluctuating trend, the highest recorded in 1991. This equals an annual mean production of 25,397.6 metric tonnes. Imports too fluctuated significantly during the period, from as high as 9,727 tonnes in 1987 to as low as 7 tonnes in 1990.

Average annual per capita consumption of fish calculated for the period is 19 Kg (table 5), below the national target of 25kg (the government has been aiming for 25Kg, that is everyone in the country should eat at least 25Kg per year). However as seen on the table 19Kg is the amount consumed and this is below the national target. Satia (1989), estimated a total protein (He included all kinds of protein for example meat, fish, chicken etc.) per capita consumption of 29kg for the Gambia in 1984, 61% of which (i.e 18kg) came from fish. There are other sources of protein like meat, beans, etc. but in the Gambia fish is the most important protein source.

By African standards, this is an impressive protein intake level. However, there are usually wide variations between national and regional per capita consumption statistics quoted in the literature for most places. In some countries there are differences in consumption between coastal/riverine populations and population that live in the Urban and rural areas. This is especially true if the rural population is "deprived" of water, i.e. is not close to any water body with fish. As noted by Satia (1989) usually coastal /riverine populations consume more fish, as in the case of Gambia. Variations from the national average get larger as one moves farther away from the coast and main road into the hinter land where per caput fish consumption can be as low as 7-9 kg (Fisheries Department, Unpublished). It is prudent to assume that the relatively low level of fish intake in the rural hinter land of the Gambia is, among other reasons, is a result of an inefficient fish distribution system

2.5.2 Foreign Exchange Generation

Table 6 indicates the value of export from The Gambia, including fish and fish products during the period 1985-92. Although the value of fish exports represent substantial foreign exchange earnings to the economy, its corresponding direct benefits in terms of revenue to the government are much less especially with regards to the industrial sector. The government removed import duties on any item destined for the fishing industry to encourage private investment. Also, fishing companies that export through letters of credits are exempted from export duty payment. However, most exporters do not operate through letters of credit. Some of the fishermen sell their catch to the neighbouring countries and they are paid in cash. Consequently the foreign exchange that should accrue to the government from the fish export trade does not come in as it should.

As an index of industry potential the export trade scenario in value terms (table 6) shows as an absolute increase of 51% from 1986 to 1990. From the point of view of national exports fish export values have generally increased in contribution, ranging from 4.2% in 1987 to 14.5% in 1989 when it fell to 11.5% in 1990. This equals an annual increase of 9.7% over the period.

2.5.3 Contribution to Gross Domestic Production (G.D.P)

Table 9 shows the sectoral contributions to G.D.P and it attempts to compare the fisheries sector and the other food production sectors. Within the food production sector, the fisheries sector ranks third after agriculture and livestock with an average annual contribution of 2.4% (a range of 1.7% in 1982/83 to 3.5% in 1990/91).

Contribution to G.D.P. by the agricultural sector has been fluctuating mainly because of inadequate rainfall within the West African sub region for over 10 years (from the late 1970s).

The forestry sector's contribution over the period under review has been 39% annually.

In discussing national domestic products and growth rate, Waring noted in her critics of economic theory that housewives and mothers are termed inactive and unoccupied and are not considered in the economic cycle and that they are invisible in the distribution of benefits that flow from production. Waring, call this an injustices which resulted from the system of accounts, (gross domestic product, gross national product, growth etc.) she said that this is an international system of economic measurement which every country is required to use (the rules) to create frameworks and models for the integration of economic statistics generally. She further noted that the motive these days for national income accounting has expanded due to a major reason that only cash-generating activities are taken into account. This is mainly done as a controlling exercise to see if a country can determine balance of payment and loan requirements and not as a comparative exercise, Waring (1991).

In another way of seeing fisheries contribution in comparison to livestock we noticed that fisheries is last when it comes to G.D.P. contribution, but it is leading as a major protein supply in The Gambia. Livestock ranks higher but it is more expensive to buy meat than fish, because of this people tend to eat more fish than meat.

As fish is important for food production and nutrition, and being the major source of protein in The Gambia, I will discuss further the different products which are processed and the technology applied in chapter 3 in addition I will discuss the different gender roles in the processing technology.

3.0 THE PRODUCTS, PROCESSING TECHNOLOGY AND GENDER ROLES

This section attempts to describe the fish products, the processing technology and the gender roles within the artisanal fisheries. It will specifically focus on the products that are put on the Gambian market. Products like shark meat will only be mentioned briefly since it is not for the Gambian market although it is one of the products produced in Gunjur. Generally, the products include both demersal and pelagic species.

Table 3 shows the production of the artisanal sector from 1986-1992. Approximately 60% of the artisanal catch is Bonga (*E. fimbriate*). Bonga is one of the important products for the Gambian markets. It is cheap compared to the other species and has a high demand among people with low income. The remaining 40% are species like the Mackerel and (*Sardinella spp.*), and demersal species like the Croaker (*Pseudolithus spp.*) known locally as "Ngooka" and "Tonone", "Kujali" (*Polynemus quadrifilis*) the "Sompat" (*Pomadasys spp.*) and "Kong" (Catfish). These species are also very popular but relatively few can afford to buy them.

Smoking is done almost every day, especially when there is a glut and the processing technology employed is particularly the "cold smoked" and the "hot smoked" products.

Processed products for the Gambian market is almost exclusively produced by women. They make "cold smoked" and dried products.

"Cold smoked" products are usually made from Bonga and catfish.

Dried products are produced from all fish varieties including the higher value species that have gone rotten. They are mainly made of fish that is no longer fresh. Sometimes fresh fish is used especially when there is a glut.

There are relatively fewer men processors; they usually deal with the "hot smoke" Bonga products, for the export and inland markets. Men and women process in separate huts consisting of 6-8 ovens (chokor oven) with 6-8 processors. The huts are own by the artisanal operators and rents are paid monthly to the centre management committee. Men process like "hot smoked bonga" in their hut while women "cold smoked" different species, (for example "kong", "bonga", etc). Women processors who use pans/pits, normally work

individually or in groups, processing along the beach or at home.

3.1 "Cold Smoked" Products

Figure 3 shows a traditional smoking pit used in the processing of the small bonga and the steak of the catfish. Smoking is usually done using a hole dug in the ground measuring about 1.5 meters in diameter and about 1 meter deep. Wire grill or sticks are laid across the hole. Fuel used in this process consists of the fibrous cover of the coconut fruit, small size wood chopping, groundnut shells, or even pieces of cartons. These are burnt at the bottom of the pit to emit the smoke upwards onto the fish arranged over the pit on the grill. The fish is arranged in single rows across the diameter of the pit on wire grill. In some cases there is no wire grill and so the women would lay sticks across the pit on which the fish is laid. After lighting fire beneath the rows of fish, a piece of wet jute sack is spread over the fish to retain the heat which cooks the fish. In the case of pans, (figure 4) the same principle is involved although in this case the fish is closer to the fire because the pan is shallower than the pit. In either case however the smoking process takes about 2-3 hours. Sometimes the sack or sticks catch fire and burn or scorch the fish. During the process the fish is smoked on one side first till it turns dark red, and then turned on to the other side to receive heat and smoked for about 1-1.5 hours. When the process is complete the water content is from 60-70% (Dept.of Fisheries). This is essentially a fresh fish product to last not longer than two days; the smoking process is more for imparting flavour than for extending the shelf life of the product.

For the "cold smoked" products the majority of this group of processors (women) operate mainly from the confines of their homes. Ethnicity is generally mixed, but the Mandinka and Serrer women make up the majority of the processors, that deal with these products.

In preparing the catfish species, the fish is cut up into steaks especially with fish of 1Kg and above. The fish is first put into hot water to remove the top greyish and slimy substances on the skin. The skin is then scrubbed to almost white, and this allows for easier penetration of heat into the thick steak without scorching the product. Like the small pelagic species the steaks are arranged on the wire grill or wooden sticks, and are turned from one side to the

other to achieve the typical attractive dark red colour of the product. Also, like the small pelagic species, the moisture content of the product is from 60-70%.

After the smoking process, both products are left to drain and cool in open baskets or bowls over night, and early in the morning, they are transported to the nearby markets like Brikama, Serekunda or Banjul.



Figure 3. Traditional smoking pit

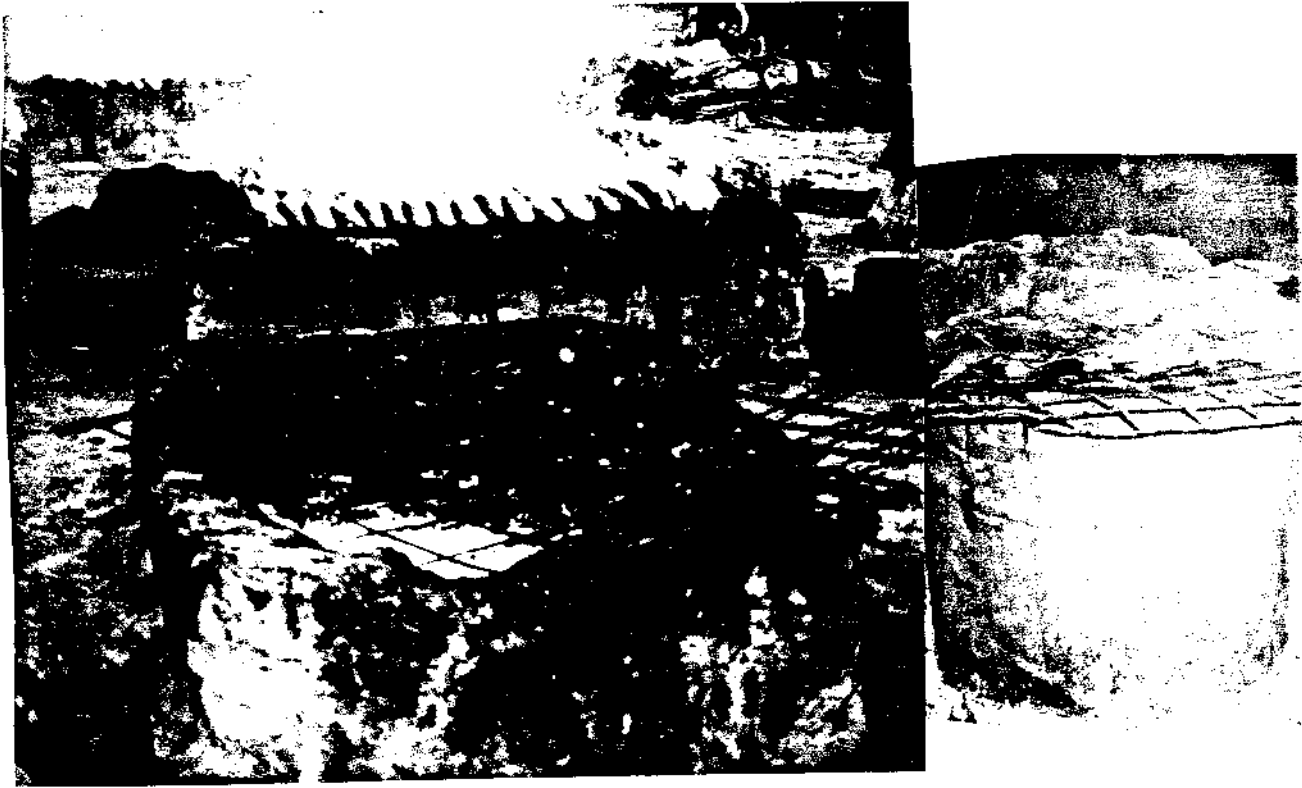


Figure 4. Traditional smoking pan

3.2 "Hot smoked" products

"Hot smoked" fish products in The Gambia are made from species such as the small pelagic Bonga (*E.fimbriata*), smoked sharks, skates and rays. "Hot smoked" products are produced mostly for export, but some of the product is locally consumed. Processing of this product is generally done by men, and it usually involves more capital than the "cold smoked" processes which are mainly done by women.

There are two similar systems in use to produce 'hot smoked' fish products. One system is where the fresh Bonga (*E.fimbriata*) is arranged first in single rows on 'runway' racks (figure 5). A fire is lit under the rows of fish to cook and drain the fish. After about 3 hours of intense heat the fire is put out and the fish is allowed to drain over night. The single layer is transformed into a double layer of fish the following morning before the fire is lit under the rack again to resume the smoking process. The fish cooks and drains further over a

lower fire than the day before. After about 6 hours of smoking, the fire, is put out and the process is repeated on days 3, 4 and 5 and on each respective day the layer of fish on the rack is increased accordingly. Hence on the third day the layer will be three, and four on the fourth day and finally on day five the layer will be increased to five. The product is described according to the number of "fires"; thus "four fires", "five fires" will describe days 4 and 5 respectively of the smoked fish. The fish gets drier and more brittle as it is subjected to more heat, and it is not uncommon for the product to catch fire as a result. Sometimes especially where the house is made of rhun palm leaves (figure 6). The whole house may catch fire, destroying the whole product. After "five fires" however, the product is dark-red with patches of black, and according to the Fisheries Department, the water content is usually less than 10%, and the product is believed to have a shelf-life of more than 6 months.

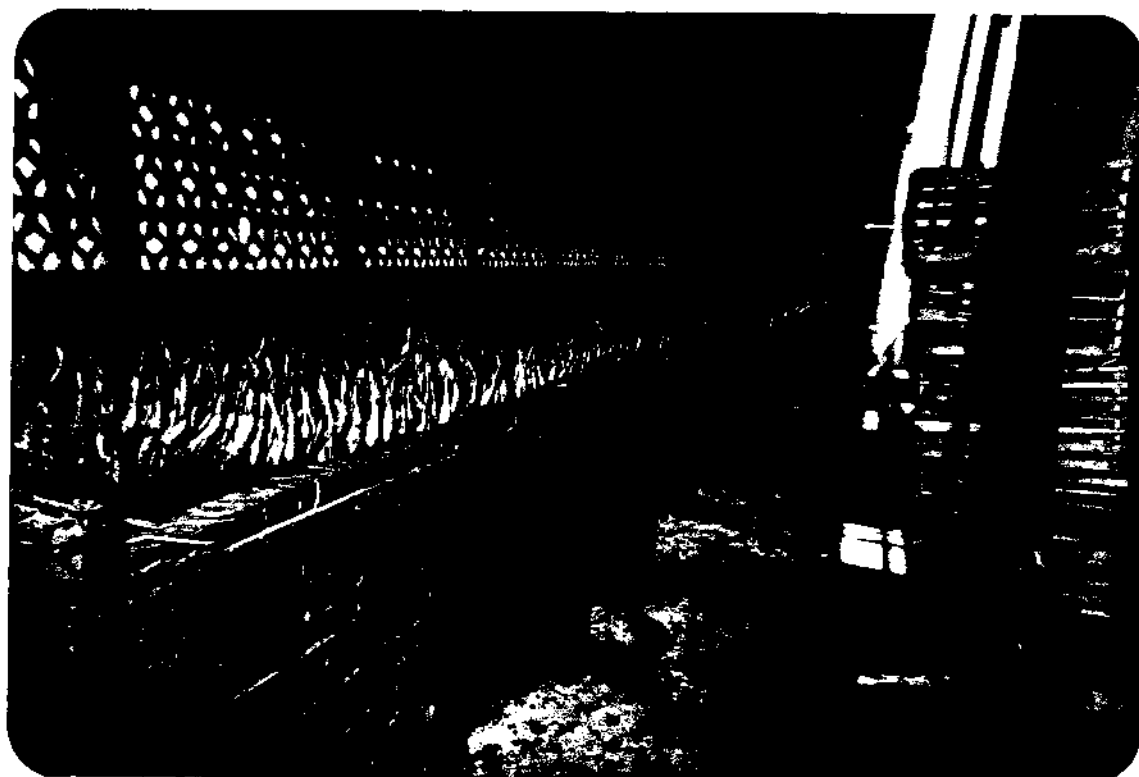


Figure 5. Bonga arranged on racks ready to be smoked (hot smoked type)



Figure 6. Smoke house made of rhun palm leaves

The other system of producing "hot smoked" products is using sharks and skates. In the case of Shark meat and Skates, the products are smoked in steaks. The fish is chopped up into steaks of about 1-2 Kg weight (figure 7) and washed before they are arranged on the 'runway' racks as in the process with the Bonga. Unlike the Bonga, Skate steaks are arranged in single layers even after two fires and consequently the product is usually heavily scorched as it burns so often during the smoking process. The product is inconsistent in both appearance (colour) and texture, and is mainly for the export market, principally neighbouring Guinea. Like the smoked Bonga this product too has a long shelf-life (about 2-3 months).



Figure 7. Chopped steaks of shark and skates to be smoked

Figure 8 is a traditional fish smoking hut. It is constructed from wood and branches and thatched with palm fronds. The racks in the smoke house is made from steel "runways" and has a height of about one meter and 45cm wide and 10-20 meters long. A smoke house can have 2-3 racks constructed paralleled to each other to accommodate more fish. Generally however, traditional smoke houses are prone to catching fire and burning down, sometimes destroying a whole consignment of smoked Bonga/Skate. They also vary in efficiency in fuel use. Fuel wood is fed under the rack directly under the row or rows of fish and the fire is watched over and controlled by the smoker. When the flames belch too close to the fish the smoker throws water to reduce the height. The smoker is therefore constantly alert throughout the process particularly when there is a strong breeze, and this is often blowing from the sea.

Since the smoker cannot control the breeze flowing in and out of the smoke house the wood burns too fast, and consequently the process uses a lot of fuel wood.

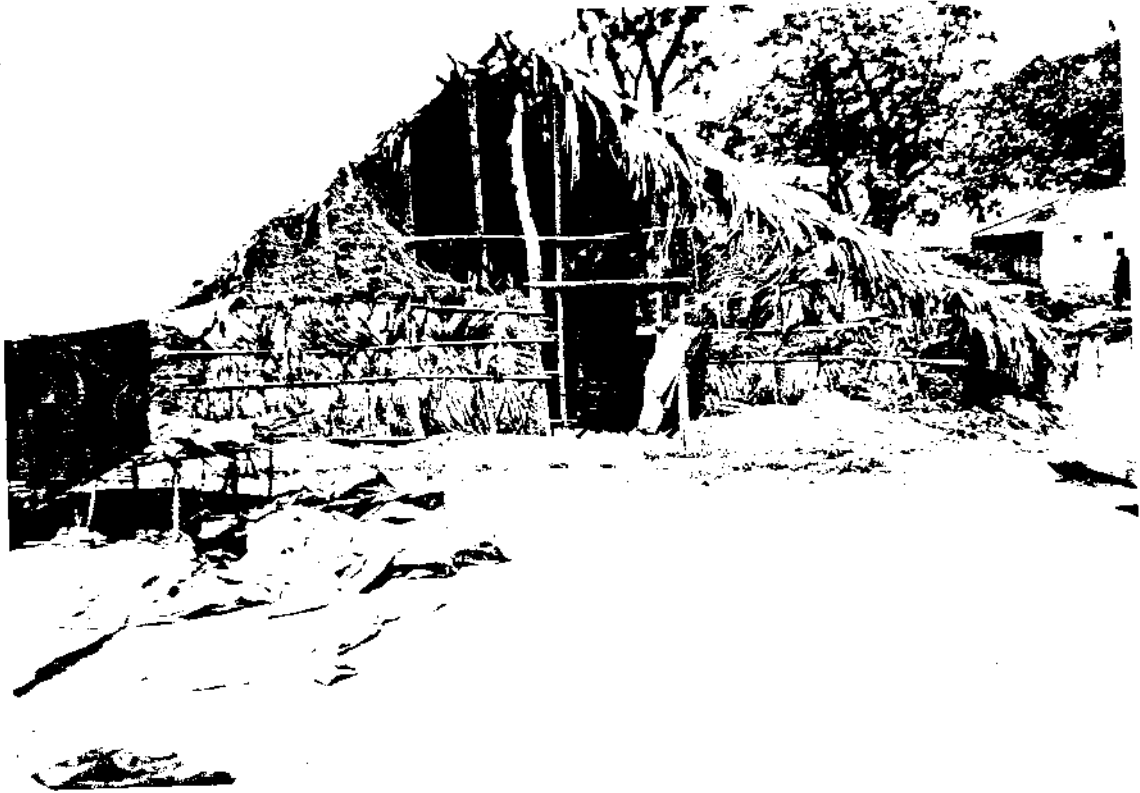


Figure 8. Traditional smoking hut

Figure 9 is an improved version of the traditional smoke house introduced by the Gambian Department of Fisheries. The smoke ovens are another version of the 'chokor' oven developed in the village of Chokor in Ghana.

As can be seen this smoked house is constructed from cement blocks and the roof is made from corrugated iron sheets. The smoking ovens are constructed from burnt clay bricks and divided into compartments, and each compartment provided with a stove through which fuel wood is fed during the smoking process. Because the compartment is mostly closed off, the breeze and consequently the flames can be easily controlled. Also the amount of fuelwood needed to complete the smoking process is about 50% lower than the traditional smokehouse. According to the Fisheries Department most of these houses are less prone and less vulnerable to fire outbreaks. The Fisheries Department also claims that the 'Chokor' type oven produces much better and nicer looking products than the traditional smoke houses. Handling the fish is at its minimum or very little damage done to it (Butchway, 1991). The processing capacity of both types of smoke houses are however much more than those employed by the traditional women smokers.

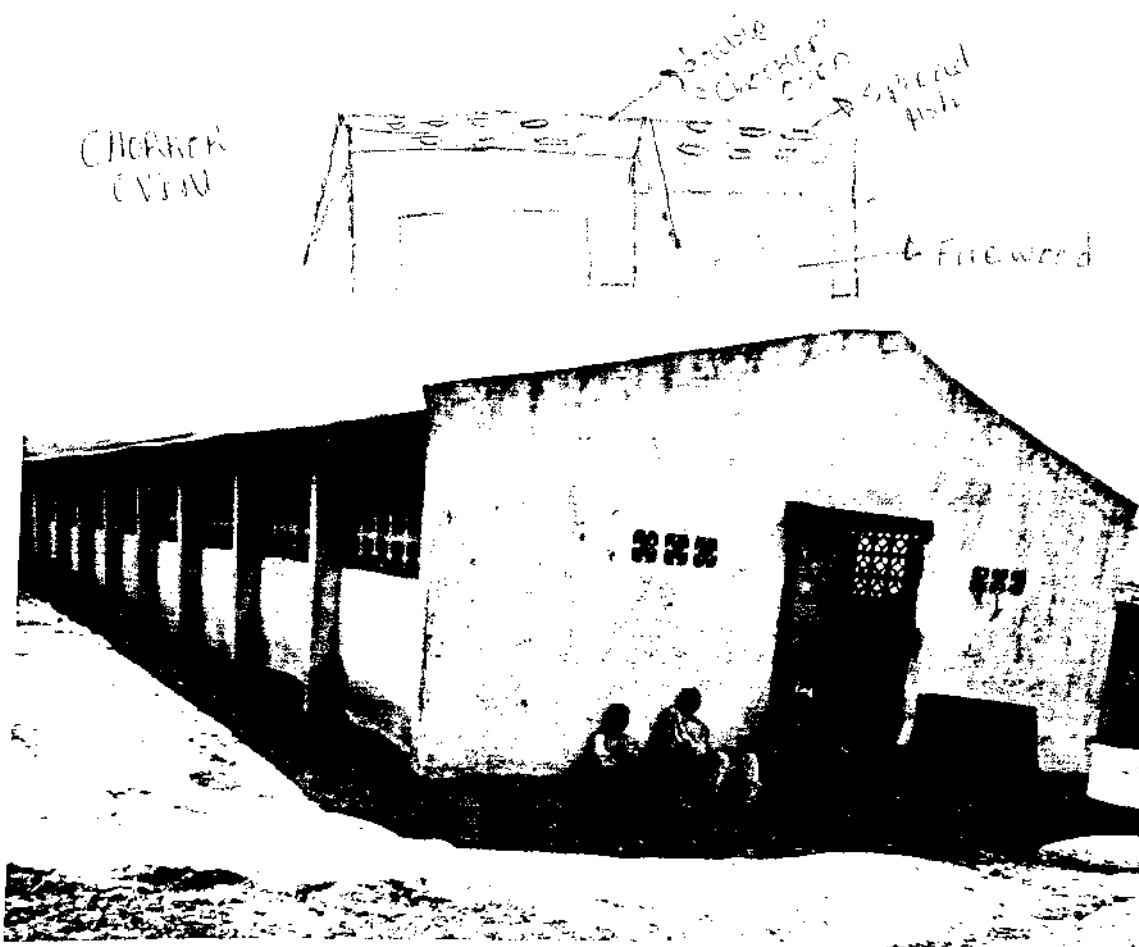


Figure 9. Improved smoke house with "chorkor" oven

3.3 Dried fish products

The dry fish products are mainly produced by women operating at the beach or fish landing site. Some of the women involved in the drying process are the wives of the fishermen or are kin related. They buy the fish directly from the fisherman. The fish is normally the catch that has gone rotten or has less quality (almost rotten). Sometimes fresh fish is used especially during the glut periods. When the price of fresh fish is very low, the processors find it worthwhile to dry the fresh fish. Dried fish products can be made from a variety of species such as Bonga, catfish and the higher value species such as polynemus quarifilis and sompat.

Some of these women have formed themselves into an informal organisation, cooperating on lending of money or racks and use of tools, and equipment. I will go further into it in chapter 5.

The processing of the dried fish is done at the beach site in two main steps; salting and drying. The women carry the fish to the waters edge under the shade beside the parked canoes. The fish is split open and the intestines removed, and then washed in sea water. Then salt is applied to the fish and dried on the racks under the hot sun for 4-5 days, (Figure 10). Sometimes it is dried for a week or more depending on where it is going to be marketed. For the near by markets it needs not be too dry (3-4 days), for the inland markets it is dried further for a longer shelf-life under good storage.

Drying is done outside (in the open) and during the rainy season (July-October). Plastic sheets are used to cover up the fish when it rains. Sometimes with several days with continuous rain the product take up so much moisture that they cannot be good enough for marketing. They are therefore discarded to the disadvantage of the women.

Dry fish is very popular and often used in cooking. People use a small amount for taste added in preparing meals. I will discuss this further in chapter 4.

Another dried product is the shark meat which is purchased by the Ghanians (mostly women) for export to Ghana. The meat chopped up into steaks of about 1-2Kg weight, washed and dried on racks without salt. (Figure 11). This product has a long shelf-life under good storage.

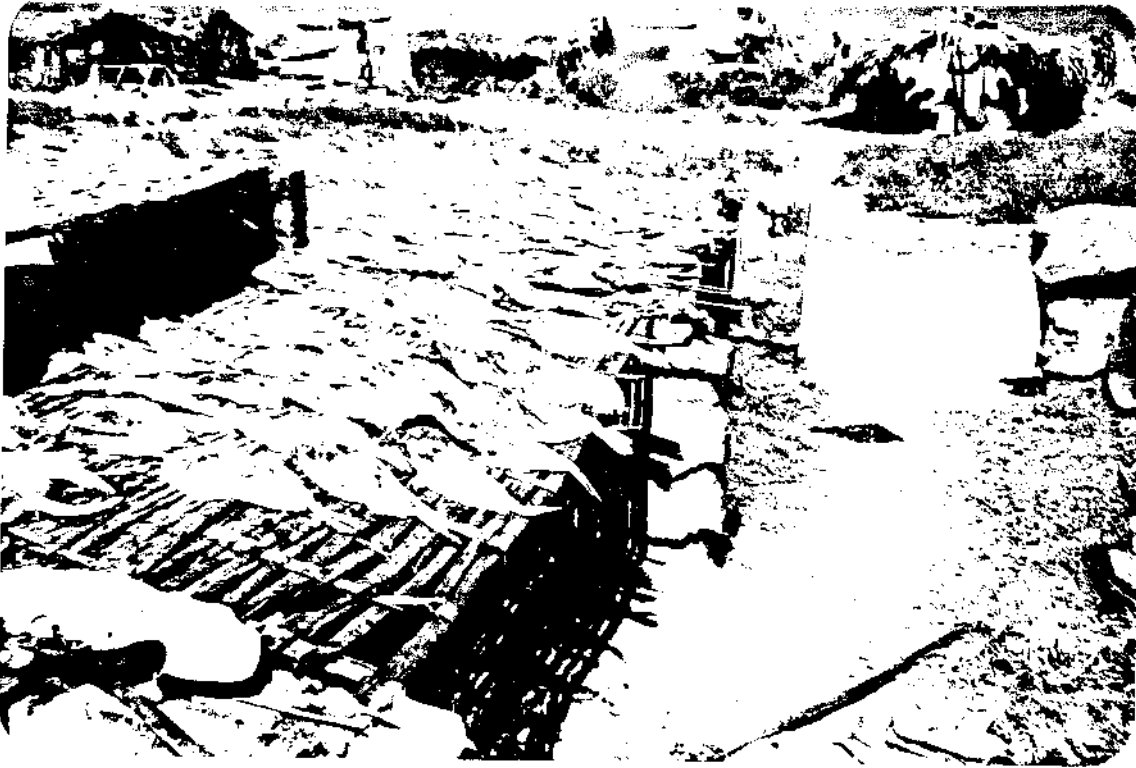


Figure 10. Dry fish products with salt

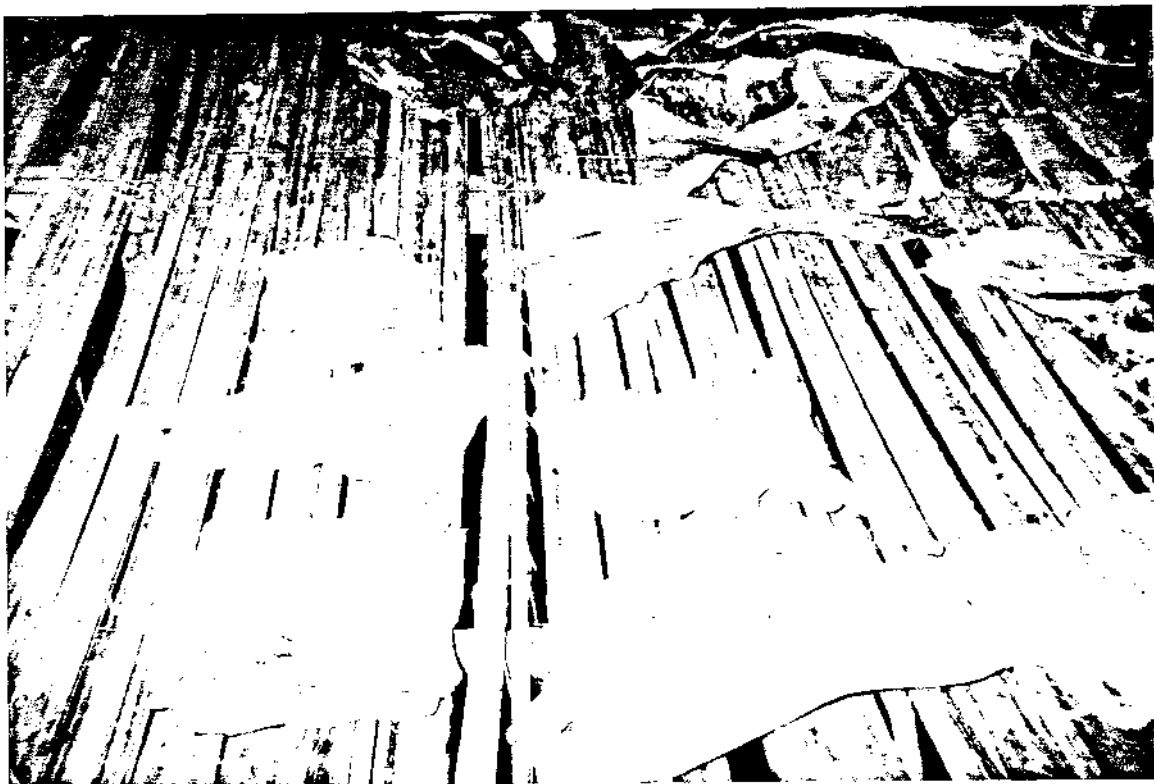


Figure 11. Shark meat dried on racks without salt

4.0 MARKETING AND DISTRIBUTION OF SPECIFIC SPECIES BY MEN AND WOMEN

In The Gambia fish marketing has developed within certain set patterns and norms base on relationships. In order to get a better understanding of these relations, how they influence the process of buying and selling, some social and cultural perspectives need to be looked at (discussed in chapter 6).

In The Gambia the word for middleman is "banabana". "Banabana" is a gender neutral term. The "banabanas" are both male and female fish traders. In my discussion of the "banabana" I will use the term "banabana" instead of middlemen so not to make female middlemen invisible. But the way men and women perform as "banabana" is different. In discussing the marketing and distribution system I will use he or she in differentiating the sexes.

Both men and women are engaged in the marketing and distribution of the small pelagic and large demersal species as "small timers". Normally it is the male "banabanas" who give loan to the fishermen. Unlike the male "banabanas", the female "banabanas" receive loans from the fishermen.

4.1 Marketing of Small Pelagic fresh fish

Marketing of small pelagic fish begins as soon as the boats land and all the catch is sorted out into pans (approximately 10-15 Kg/pan). The fisherman and the "banabana" (both men and women) immediately begin haggling over price of the pan, and when eventually they agree on a price, the "banabana" pays in cash, usually buying 1-2 pans. This category of "banabana" in the small pelagic fishery is the "small timer" with less than D400 (about NKR 380.00) as capital. He distributes fish in baskets/boxes on bicycles (maximum carried per time seldom exceeds 30 Kg). Along the route from the beach to the market he peddles his fish in the villages through which he passes, covering a radius of about 25-30 Km. The "small timer" female "banabanas" do not use bicycles or trucks, they normally join the public buses or taxis to transport fresh fish to the near by markets. Both category of "banabana" does not use ice or any other form of preservation before or during marketing (figure 12).



Figure 12. "Banabana" with bicycle

Another category of "banabana" in the small pelagic trade is the truck owner, (figure 13). This group is usually more powerful (in terms of purchasing ability) and operates in light pick-up trucks of two tonnes capacity. He purchases fish the same way as the cyclists but he can move a larger quantity at a time thus he usually purchases more of the fisherman catch (400-800Kg). The fish is taken to provincial markets reaching a maximum distance of 320Km (figure 1) to Basse. There are intermediate "break-up points" along the high way where he off-loads part of the bulk for commissioned retailers to distribute. The retailer break up the bulk further for distribution to villages away from the main road through secondary retailers. The trucker uses ice (often not sufficient) to cool the fish, and when ice is not available the fish is covered with leaves and branches (Department of Fisheries, Gambia, 1992). Even though the system lack some basic infrastructure the "banabana" is doing a vital service within the industry. With his meagre capital he is able to perform some of most basic functions of a "banabana". The "banabana" plays an important role as a retailer, wholesaler and reseller, in that he relieves the producer (fisherman) from having to market his catch himself; the fisherman lands a big catch of different sorts of species, but the customer is interested in just a small quantity at a convenient location (the landing sites are scattered and sometimes far from markets) and at a convenient time. Another important role of the "banabana" is related to their provision of assortment of species. They also provide

an easy payment mechanism, particularly for the customer. The function of the "banabana" is therefore to help overcome the discrepancies in quantity, place, time, assortment and possession that would not otherwise have existed.



Figure 13. "Banabana" using truck to transport his fish (trucker)

Kotler (1991) advocates that the middleman performs special marketing tasks more efficiently than the producer (fisherman). He goes further to say that they create place utility, and time utility where customers are located, making the product available at small purchases. They also create assortment utility by collecting in one point other species of fish that consumers may seek on the same shopping trip. They also create possession utility by transferring the product to the consumer in an easy transaction format, namely for simple cash payment. These functions, it must be stated, are being performed relatively well by the artisanal "banabana" in the Gambian fishery. This in spite of the general lack of infrastructural facilities to assist the process of fish marketing and distribution. (Martinussen, Hallenstvedt and Shantilal, 1985).

4.2 Marketing of the fresh large demersal species

As in the small pelagic distribution system the large demersal species has also both the "small timer" and the "big timer". However unlike the small pelagic sector, here the "banabana" (male "banabana") are sometimes very influential in determining the price they pay for the fish from the fisherman. Often the fisherman is obligated to the "banabana" through loans he receives from the "banabana", particularly during time of low catch. Until the "favour" is repaid in full the fisherman is obliged to sell to no other "banabana", and the price discount the "banabana" receives is effectively the interest charge on the loan. The obligation to sell to him lasts for as long as the loan is outstanding, and invariably the loan is always outstanding because the fisherman keeps coming back for more loan. The female "banabanas" instead depend on the fisherman for loan. They receive small loans because of the small quantity of fish they handled daily. Female "banabanas" do not determine the price they pay for the fish but they can get price reduction through haggling or due to some kind of kin relationship. The loan is normally paid after selling her products.

In any case after agreeing at a price the "small timer" would then transport the fish on taxis. She or he has no influence over when the taxi departs, where it stops, or how fast it takes him to the market as there are other passengers in the taxi whose needs also have to be met. They try to be at the market place early in the morning to catch shoppers or prevent her fish from spoilage due to high ambient temperatures. This clearly is potentially bad for the fish under ambient temperature, (ice is seldom used during stage). At the market if all the fish is not sold, it is stored in old domestic freezers in which some ice is provided. The fish is then on the following morning, (Lawson, 1984).

The female "banabanas" has no special equipment or material on which to display their fish other than a concrete table in the open with flies buzzing around in unhygienic conditions. Those who do not have access to the concrete tables spread their fish on sacks or pieces of cloths on the ground to sell to consumers. At the village markets too, concrete tables are used or the women make their own wooden tables on which to display their fish, (figure 14).

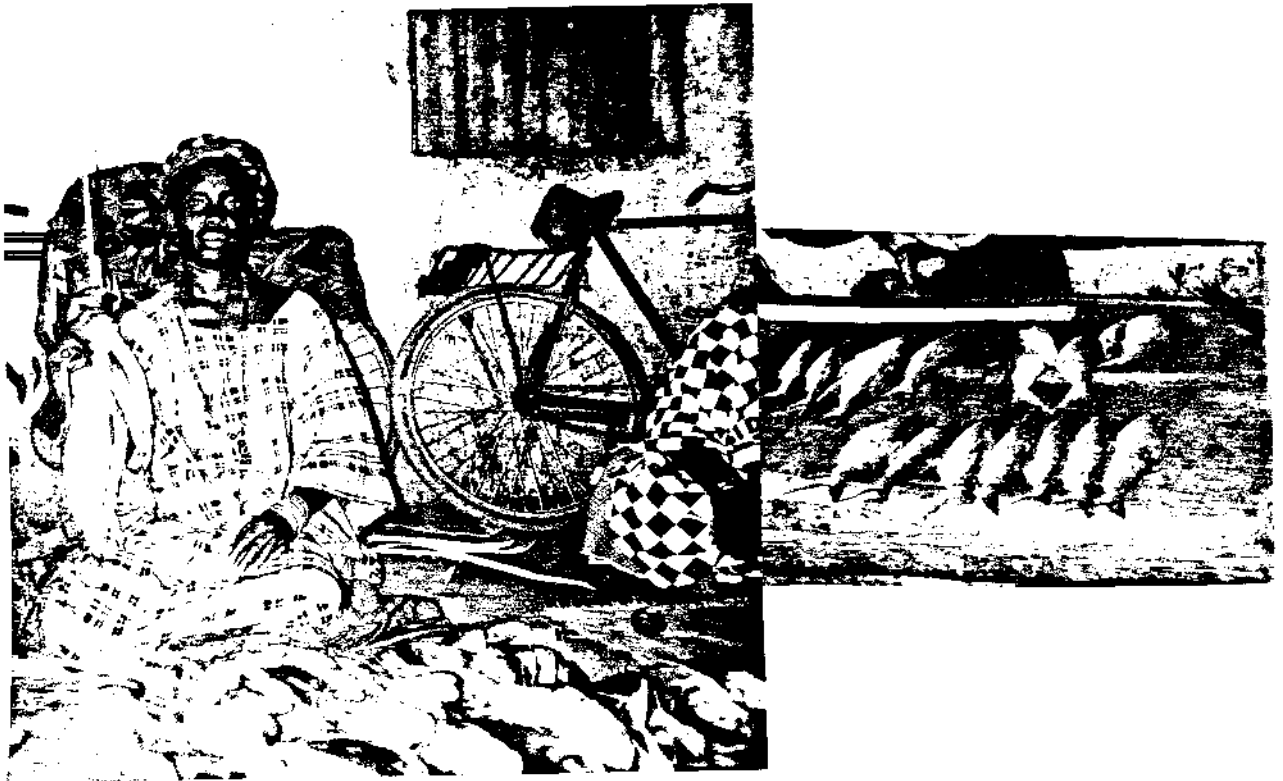


Figure 14. A woman displaying her fish on concrete table in the open at the market place

The "big timer "banabana", is always a man, he hires a taxi to the beach and as quickly as possible takes his fish to the market (usually more distant) to catch the morning or afternoon shoppers. This category also supplies the hotels and restaurants for tourists. It is also act as contract buyer for fish factories of higher value species such as shrimps, lobsters, sole fish etc.

4.3 Marketing channels of cured products (large demersal species)

Marketing of the salted dry fish is normally done by women travelling to provincial markets. Figure 15 shows bales of salted sundried fish to be transported to rural markets. Specific rural markets are targeted by these women (Farafenni, Brikamaba and Basse) here the main bulk of the consignments is broken up for further distribution inland. There are weekly market days in Farafenni and Brikamaba every Saturday locally called "Loumo", and most dried fish produced along the Atlantic coast finds its way to these markets. Basse (320Km from Banjul) has a busy market each day of the week, and so the "banabana" target it any day of the week. Other intermediaries (some cross the border from Senegal) buy the products for distribution into Senegal.



Figure 15. Bales/sacks of salted sun dry fish destined for rural inland markets

There is an industry based on sharks. This is dominated by women from Ghana who will purchase the fresh sharks, cut up in steaks and dry them on racks without salt. The entire product is for export to Ghana.

The smoked form is also available, normally processed by the male "banabana" but exported to Guinea. This is a relatively new product specifically for Guinea markets and could be extended and developed through the innovation process, to determine if the product would be adopted or rejected. This process is necessary for effective strategic planning for market penetration. Rogers, (1994), and Chaston, (1987) say when new products are adopted, they could be useful for replacement of the lost profit contribution from falling sales of less popular products.

4.4 Marketing of the small cured pelagic and catfish

The products discussed earlier in chapter 3 include the "cold smoked" small pelagic such as the bonga and also the catfish which are mainly produced by women processors. After smoking the evening before, the products are taken to the local village market or to the urban markets like Banjul, Serekunda or Birkama very early in the morning to catch the morning shoppers (figure 16). Here the fish is sold per piece directly to the consumers and the price depends on variables such as size, location and simple laws of demand and supply. However, prices generally range between one piece for D1.50 - D3 per piece at the urban markets. With the catfish steaks, the price varies between D2 - D3 per steak or D10 - D12 per fish of 2-3 Kg. At local village markets the price range is D1.50 - D2 per piece of Bonga. Consequently, smoked catfish is usually destined for urban markets where it fetches higher price.



Figure 16. Women selling "cold smoked" bonga at market

The male distributor or smoker, deals mainly in "hot smoked" bonga. Part of this product is transported to provincial (bigger markets) markets to "Loumos" weekly or to Basse on any other day. Most of this product is for the export market. In collaboration with other trades, the male "banabana" will load boxes of smoked bonga in 5-10 tonne trucks. Along the route some will break up their consignments and supply commissioned agents at intermediate villages who will further break up and supply local agents sometimes a few kilometres from the main road. At the last port of call (Farafenni, Brikamaba or Basse) the remaining boxes are sold directly to retailers, and where possible they themselves retail to consumers. Usually, the cost of a box (500 pieces) ranges between D180 - D250 whole sale, and retailers can sell for as much as D2.00 per piece. The part for export leaves the country to the neighbouring countries. The exported "hot smoked" bonga is destined for trade within the sub-region, mainly Sierra Leone, Nigeria and Liberia. The republic of Guinea is the destination of the newly developed smoked shark.

Since the product is drier and has a longer shelf-life retailing it is less of a problem as the possibility of spoilage is less considered. Because of the low earning power of the rural household especially during the rains, smoked fish is exchanged for staple grains like "coose" and rice where the customer has no money. The village trader would then sell the accumulated grain to recoup his money when he visits larger rural towns on business.

It is interesting to note that in spite of all these incentives provided by The Gambian government to enhance the development of the artisanal fisheries, and to provide protein for Gambians, the distribution facilities and access to them is inadequate. Therefore some important questions that come to mind include the following.

Why are smoke houses including women smokers not given the chance to purchase the fish where there is no glut, as observed in Tanji ?

What are the main problems encountered by the women fish traders?

Are the problems related to the fact that they are women ?

Do they have access to credit ?

What are the consequences of the above to the women fish trader, and how does it impact her way of life ?

These questions will be treated later under the appropriate headings in the paper.

5.0 ROLE OF WOMEN IN THE ARTISANAL FISHERIES SECTOR

In the previous chapter, we have noted the marketing and the distribution patterns displayed by men and women. We have noticed that men handle larger quantities and thereby have better income. The processed fish products handled by women is of importance both for the Banjul markets and the inland markets, specifically in the absence of ice. Women contribute in almost all aspects of fish distribution, their contribution apparently is in both paid and unpaid labour. In discussing this chapter, men will be mentioned as husbands but I will focus more on women/wives since they are important in the provision of cheap protein for the people. Since our interest is to increase the protein intake for the Gambians, the cheaper and easier to handle the product the better it would be for the consumers.

In focusing on women I will also discuss their day to day lives both at home and at the landing site. Women always have domestic responsibilities, thus one have to investigate this aspect and cannot separate their role as processors and marketers from their other work.

In discussing women in their role as "banabana" and marketers compared to their male counterparts some important questions need to be raised.

Why can't the women also be able to purchase and market larger quantities of fish like the men? What are the barriers that women face which men do not face?

In discussing this chapter, we shall look at women from the following perspectives:

- women as housewives and mothers within the fishing family;
- women as ancillary workers-porters;
- women as processors/marketers;
- women as financiers.

It is necessary to highlight their work and the effects it has in getting fish protein to the people. Barriers arise in getting the fresh fish to the inland markets. In discussing the middlemen "small time Banabana" and the truck owned "banabana" in chapter 4 I have mentioned that the "small time banabana" does not use ice or any form of preservation and

the truck owners use little ice which is insufficient to cool the fish. Besides, even if the fresh fish reach the inland markets people cannot buy more than a few day's meal because the majority in the rural areas do not have freezers to keep the fish. Even though the demand for fresh product is high because it is very popular. Due to the problems mentioned above therefore the fish needs to be processed either dried or smoked, which lead us to the important work of the women processors.

In order to understand how the woman combines her economic and domestic roles in her strategies we need to look at the concept of women and describe her duties as a woman and as a "banabana" in the traditional Gambian society. Stølen (1991) argued that what is meant to be a woman in a given context needs to be investigated and not assumed. Now we will look at how she manages to combine the different roles.

5.1 The woman as housewife/mother

Apart from processing and marketing, fish mongers are also wives, mothers, sisters and daughters. On the basis of the interviews, I concluded that many of the women in the artisanal fishery sector are wives of fishermen, or sisters to fishermen or some other kind of kin relationship exists between them. Kin relationship (discuss in chapter 6) in the Gambian society takes many forms. I would say that the women fish mongers are part of a family of a whole, and each member of the family has a role to play. The husband is normally the head of the family. He is usually a fisherman or processor (for the export market), or marketer or net repairer or combining fishing and farming. Women take care of the household, do the domestic work (cooking, cleaning, sewing and washing), processing and marketing of fish as well as contributing to the financial expenditure of the household. This is also noted by Whitehead (1981) in her discussion of rural Ghana and industrial Britain. They also do crop farming (normally subsistent farming). Some of them have gardens near the landing sites; during the dry seasons, they cultivat vegetables such as tomatoes, pepper, cabbages, garden eggs, lettuce and spinach. During the rainy season those who have farms cultivate rice and cassava. Cassava is normally grown at their back-yards. While waiting for the canoes to land, some of them visit their gardens, water the garden beds and harvest some of the vegetables. If they harvest more than needed to feed the family they sell the rest of the

vegetables at the beach (landing site) or give them to their daughters to sell while they buy fish from the fishermen. Sometimes they sell the vegetables at the market centres whilst they are simultaneously marketing their fish and fish products. The money they get from selling the vegetables is used to buy other necessary things for the household, for example cooking oil and salt. If sufficient they use it to buy clothes for the children.

Men who also do farming on the side normally grow cash crops like groundnuts, millet, maize etc.

During the course of the research work many homes were visited and the different households are very similar. We shall discuss two households that is Binta and Kaddy's homes. We shall see how they live in their homes, the expectations of the woman, what work women usually do and what duties are involved in her roles.

5.2 The household of the fishing family

The majority of the fishing families live in compounds of 2-5 houses. Sometimes it is only one family that lives in the compound in separate houses, and the head of the household is normally a man who owns the house.

Moore (1988) defines a household as a basic unit of society involved in production, reproduction, consumption and socialization. Young (1992) defines household to be composed of a number of different individuals of different ages and sexes; in economics it is treated as a corporate unit, as if it were an individual.

The size and composition of the household varies with the number of wives the man has; polygamy is practised by many Gambians, and also among fisherfolks. Sometimes a man can have up to 4 wife, and each wife can have from 1-8 children. In The Gambia it is usual that the men takes major decisions in the house. For the woman to make decisions, it is limited to the taking care of the household and over the children, but sometimes when it concerns the children the father makes the final decision.

Now we will see how two fish mongers live in their homes;

Binta Chorr is the 25 year old wife of Birama Sarr. So far Binta is an only wife. Birama operates a 10 meter canoe powered by a 25 HP engine. The boat has a crew complement of 5 including Birama who is also the captain. Binta and Birama have three daughters aged 9, 6 and 3 years, and a son aged 5 years. Within this set up Binta has several roles; mother to the children, housewife, and marketer of the catch of the family either directly to the middlemen or processed to consumers.

A typical day in Binta's daily activities begins at dawn (6 a.m) when she gets up from bed to prepare breakfast for all the family and crew members who live with the family. She fetches water to prepare her husband's bath, and by 8 a.m the older children are prepared to have their breakfast. At the same time the crew is set to sail out to visit the net out at sea. At 9 a.m Binta would begin the preparation for the afternoon meal in time for the return of the crew at about 12 p.m. A heap of clothes (her children and husband's) will have to be washed before she sets out for the beach by 11.30 a.m. The other crew members normally wash for themselves. When the canoe lands at 12 p.m she takes charge of the marketing, bargaining with the "banabana" and or consumers. Meanwhile, she selects from the catch, a portion to serve for the evening meal which she sets to prepare as soon as she finishes selling. She prepares the fish at the beach, cleaning and gutting, before she returns home by 5 p.m to start preparing the evening meal so that by 7.30 p.m the family gathers to have supper. She does the dishes, after which she prepares the younger children to bed, and by 10 p.m she retires, to repeat the same chores the next day.

Kaddy Sarr is a processor/marketer and wife of a fisherman. Polygamy is practised in Kaddy house. Her husband has two wives and Kaddy is the first wife. The second wife Nyema is not in the fish business and she lives in Senegal. Her husband normally travels during the rainy seasons to the second wife (Nyema). Kaddy has one child of 6 and her aunt and mother-in-law in the same household. This means that, including her husband's team mates Kaddy caters for 7 people. Unlike Binta Chorr, Kaddy also smokes catfish, occasionally Bonga too to take to market herself or to sell to neighbours. It is not uncommon for Kaddy to arrive home late from the market, and she has to rush to prepare the evening meal for the household, a chore which she is duty- bound traditionally to perform. With her profits from

the smoked fish trade, Kaddy usually buy her supply of fish from her husband's boat, and sometimes extends some credit to the fishing team to buy particularly petrol. She of course is paid in fish until the whole loan is paid up.

5.3 Women porters

Figure 17 shows a woman porter, evacuating the catch from the canoes into waiting trucks and smoke houses. This category of women participants range in age from 15-40 years and are mainly from the Jola and Manjak tribes and live within a radius of 5-7 kilometres from the landing site. They walk the distance daily to help evacuate the catch, and for each pan load taken to the trucks or smoke houses from the canoe, the woman is paid 4 pieces of Bonga, or where the owner of the fish can afford it he pays D1 instead. After a few trips to the trucks or smoke houses, the woman normally receives fish sufficient to feed the family at least for a day. Any subsequent fish payments are therefore sold to augment further the family income. The money is used to buy rice and other necessary condiments for the evening meal, and probably the next day's afternoon meal. The more industrious and hard working ones can save sufficient money doing this to buy even clothes for themselves and for their children. Mrs Elizabeth Jarju is 30 years old and mother of 4 children. She makes, on average D20 per day after saving fish sufficient to feed her family of 6 for 2 days.



Figure 17. A woman who has evacuated the catch from a canoe, carrying it to a waiting truck.

The average daily earning of the women at the beach ranges from D7.50 - D40 (table 8). In a 20 day month, the income range would be between D150 - D800. For example Isatou Jatta and Jankey Manneh will be considered "well off" by Gambian standards if their respective daily earnings at the beach are considered. With an average daily income of D40, Mrs. Jatta should earn a total income of D800 during a 20 day month during 75% of the year. This, by Gambian standards is reasonably good earning. This is equivalent to the salary of a grade 5 government civil servant. Likewise, Mrs. Jankey Manneh, earning an average of D32.50 for not less than 60% of the year (approximately 7 months), should earn a total of D650 per 20 day month. This is equivalent to a grade 3 employee of the government. On the other hand Isatou Banjie (average daily income of D7.50) will make a total of only D150 per month, and this is below the minimum national wage. However, with a national unemployment rate of approximately 40%, and per capita income of D2700. Mrs Banjie is spending her time usefully, within the artisanal fishing industry.

5.4 Women as Fish Pprocessors/Marketers

In the Gambian artisanal fishery, women are mainly engaged in post-capture activities processing (smoking, drying and marketing). Figure 18 shows a woman smoking fish in readiness to sell at either the local village market or nearest major town. Because of the relative small-scale nature of their operations, women smoke most of their fish at home in dug-out pits, or 44 gallon drums cut in half (see chapter 4).

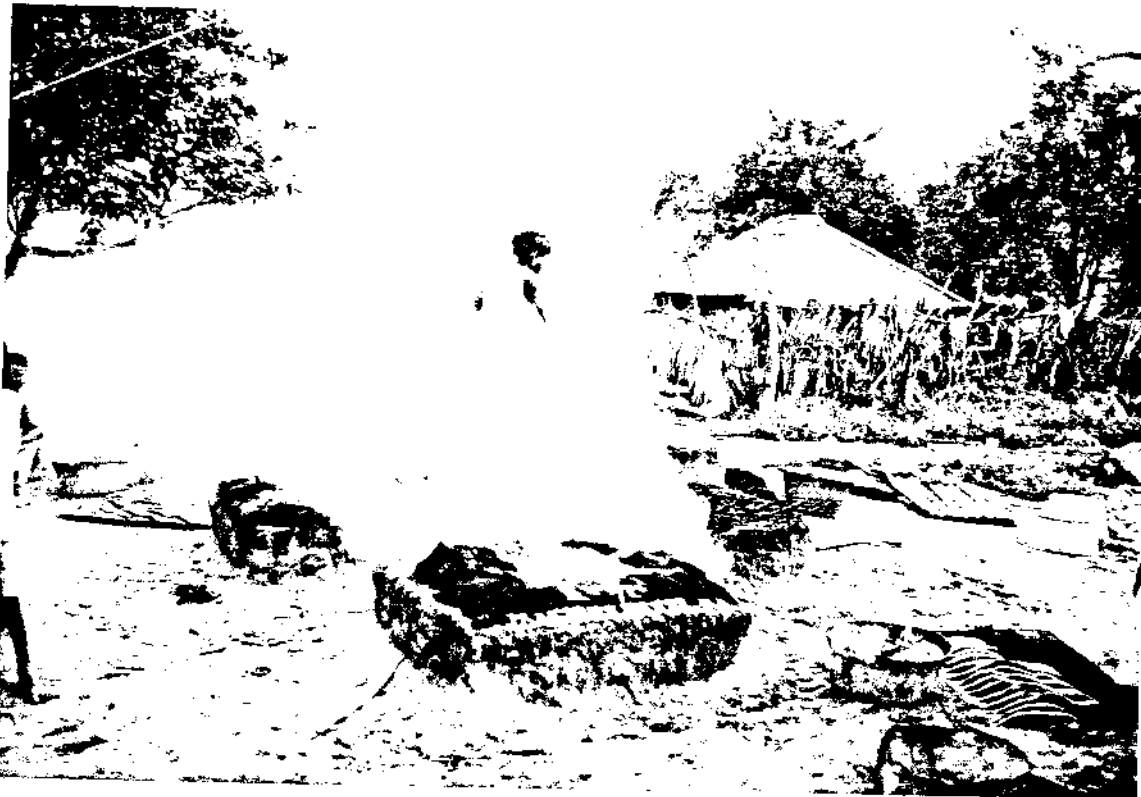


Figure 18. A woman smoking fish in readiness to sell at the village/town markets

Mrs. Musukebba Danso is 45 years old and works in the informal sector of the artisanal fishery smoking catfish to sell to neighbours or to take to market. She has been doing this for the past 15 years as the major source of her income. She works each day of the week except on Sundays, arriving at the beach each day at about 9.am, in time to catch the first boats land. She purchases only catfish (which is her speciality) and prepares each batch acquired fast enough to allow her time to catch the next boat. This goes on till 12.30 p.m by which time all the boats would have landed. She would then continue to clean and scrub the fish in hot water to remove the slime and the top layer of the skin of the fish. This gives

the final pre-smoked product almost a white colour, and a dark final smoked product.

On the average, Musukebba pays D5 per piece of catfish (sizes range between 250g-3Kg) and processes approximately 40 kilos of fish per day. There is a general lack of data on the amount of catfish, and indeed all species that are smoked by the artisanal sector, but unofficial accounts estimate 10% of the artisanal catch as going into this channel (90% goes to fresh and drying). This includes species such as the small Bonga, sharks and the catfish.

Musukebba makes D70-80 per day, and given a 20 day month (as estimated earlier) she earns from D1400-1600 per month. With this kind of monthly earning, Musukebba ranks as very "comfortable" in terms of purchasing ability especially as she has very few dependents. She has an 18 year old daughter with whom she works with and two sons of 10 and 12 years old respectively. The estimated monthly earning of this woman is beyond the grade 6 level of the government.

Mrs Jainaba Bojang is another category of women processors; she process a smaller and lower value species of fish, the Bonga. She is married and is 25-30 years old with a family of three children, two of whom are of school going age and the third is an infant. She buys fresh bonga in bulk (by the pan of 15-25Kg weight) to process at home. Like her contemporary Musukebba, she does smoke bonga every day of the week except Sundays. Unlike Musukebba however, Jainaba makes a maximum of D25 per day as profit which translates to D500 per 20 day month. With the money she augments the family income, buying food, clothing, and meeting the expenses of her two children at school while her husband pays the house rent.

Women are normally able to combine domestic duties and income generating when young and strong, but as they grow older it becomes difficult to participate fully in the fish business. In these cases their contribution to the household is reduced. If the husband has an income he does cover most of the household expenses, until their children are old enough to take over the business and provide for them.

5.5 Women as Financiers

The economic and financial role of the women is not as significant within the Gambian context as it is within the Ghanaian context. In Ghana women invest into the industry by giving credit to the fishermen to cover the cost of fishing trips, to buy fishing equipment, and even by making fishing boats available to them (Overå 1991, Aji kodjo et al, 1993). In Sierra Leone, Demby (1993) notes that a few women own boats ranging from dug-out canoes to the Ghana plank, which are usually left in the care of husbands or reliable male relatives. In the Gambia, the practice is not common; indeed it is male entrepreneurs who are more inclined to finance the different fishing crews than their female counterparts. This is mainly because women entrepreneurs have much less chance of obtaining sufficient investment capital to sponsor a fishing crew.

However, it is not uncommon to find within the fishing family some form of assistance rendered to the husband by the wife. This can take the form of a loan to buy gasoline or a set of nets, etc for the husband. In return, the husband would give exclusive right to buy the catch to the wife during the duration of the loan. This does not however mean that after the loan has been fully repaid the man may sell the fish to anybody else. On the contrary she will still have first priority to buy the fish.

In Bansang (figure 1) the fish mongers we met at the landing site are related. They originated from Guinea Conakry. Here, the women own canoes, each canoe owner normally hire a man to fish for her, and the catch is shared equally by voluntary price setter (who is also a family member) who divides the fish equally. The fisherman would sell his share to the "banabana" whilst the canoe owner normally takes her share to sell at the market. From her profit she gives loans to her husband or other relatives or invest in a new canoe.

Another aspect of this kind of "partnership" within the family is that labour is sort of shared; the husband and his crew members catches the fish and his wife markets it. This kind of relationship is common among the Serrer fishing families who originate from Senegal. After the boat lands, the fish is evacuated on to the beach, and the husbands job is, as it were, finished. It is the woman who bargains with the "banabana" whilst the husband and the rest

of the crew have their lunch, and afterwards attend to any other chores related to the material, equipment, or purchasing supplies. On disposing the catch, the wife hands over the money to the husband (no fee or commission is given). Where all the catches cannot be sold or the fish goes bad, the woman dries it herself or sells to another processor, and on selling hands over the money to the husband. Besides the women financiers in Bansang, the wives in these situations work free for their husbands. Her husband provides for her and the family, which makes her economically dependent on her husband and her right to decision making is very limited, or none existent at all.

5.6 Financing women's activities

The economic and the financial role women play within the Gambian artisanal sector places them in the midst of some important challenges such as food security and local durable development. With an annual population growth rate of about 4% and limited food resources, the Gambian government has put a very strong emphasis on improved use of artisanal fish catches. This effectively means that the women entrepreneurs within the sector have to purchase and process a very large part of the approximately 10,000 tonnes of fish landed by the artisanal sector.

Generally, there is little or no form of an institutionalised credit system available to the Gambian artisanal fishery sector. The main source of credit for these women entrepreneurs within the artisanal sector has been the Fisheries Department which operates a revolving loan scheme for artisanal operations. Mostly however, this loan scheme benefits more, the male sector than their female counterparts, the beneficiaries using the money to purchase equipment and materials. Indeed, very little of the loan has been destined for post-harvest activities in which women are mostly involved. Of a total loan portfolio of over D356,000 only D43,000 were disbursed to the women folk (Fisheries Department, 1993).

Professional associations of women fish processors and traders try to gain access to traditional and institutional credits in order to receive additional finances for investment operations.

During the process of the data collection two sites (Tanji and Tujereng/Batukunku) were chosen because I observed that most of the activities of the existing organizations are similar. In Tanji two sub-groups of the Jola and the Serrer group would be discussed. In Tujereng/Batukunku two groups ("Sabari Kafo" and the Mandinka) would be discussed.

During the process of the data collection I observed that most of these organizations are similar so I decide to discuss only 4 organizations out of the 100.

Below is a brief explanation of how each of these two groups and their sub-groups operates.

5.6.1 Tanji women fish processors

There are 100 registered women fish processors operating at this fish landing site, (Department of Fisheries 1993). They include smokers, dryers, and fresh fish "banabanas". These women have divided themselves into sub-groups according to their tribes (ethnic groups).

5.6.2 Serrer group

This group locally named "Fisco Kafo" is one of the most hard working and outstanding group among the four examples. It consists of 24 members and is headed by a lady president called Mulop Faye.

The "Fisco Kafo" has been operating for almost 4 years (1989-93) and from that period on they have been holding frequent meetings during which matters pertaining to their operation or processing are discussed. They contribute D20 each per month. It is from this contribution that loans are issued to themselves, and repaid in a period of three months with an interest of 10%. This monthly contribution and issuing of loans is working successfully in that presently they have generated an amount of D15,000 in their cash box. This amount is however, insufficient for them to enlarge their business especially the dryers who take their products to Farafeni weekly or monthly.

They have expressed the need for a loan of about D20,000 so as to expand their business by taking their products to farther markets inside the country.

5.6.3 Jola group (a)

This group locally named "Jamoral Kafo" started operation in 1989 and is the largest group. It consists of 51 registered processors (smokers and dryers) and they also meet frequently. They pay monthly contribution of D8 which is also issued back to themselves as loan and is repaid in a period of two months with an interest of 20%. They have generated an amount of D5,000 and this amount is still revolving.

5.6.4 Jola group (b)

This group consists of 12 members and their lady president is Marie Badjie. They started operation in 1992.

They also hold frequent meetings and pay a monthly contribution of D10. It is from this contribution that loans are issued to members and repaid within a period of two months with interest of 20%. They generated an amount of D830 but due to the heat within the save box, an amount of, D420 in bills faded and even the bank would not exchange them. This was a great loss to the group.

They are requesting a loan of D3,000 from the Department of Fisheries to expand their business to further markets.

5.6.5 Tujereng/Batukunku fish processors

"Sabari Kafo" group

This group is locally named "Sabari Kafo", and consists of 24 active members and has been operating for almost 4 years now.

The group consists of processors (smokers and dryers) who are dedicated members through the years even though the catches at their sites are very low due to few boats operating at the site.

Fish landed at this site is insufficient, but they have managed to stay in business during this period by sharing the resource purchasing the fish on alternating days. Sometimes instead of buying the catch a woman gives her chance to a counterpart in the "Kafo" to buy on her day.

Their present problems include the following:

1) Lack of enough capital to enlarge or expand their business;

In spite of their heavy problems due to insufficient fish landed they have tried to generate a small fund through monthly contributions of D5 which they issued to themselves on a revolving loan scheme, and is repaid after operating for two months with an interest of 30%. They presently have an amount of D2,600 in their cash box but this amount is insufficient for the whole group.

2) lack of proper drying racks; the drying racks they presently are using are made by themselves, and are of poor quality.

3) the group operates a vegetable garden (cash crop) but this has failed due to the salty water of the wells.

5.6.6 Mandinka group

This group used to be very hard working but due to certain problems existing within themselves, they decided to disband the group.

During the course of my research I also noticed that another group of 12 registered fish processors has emerged, they have contributed an amount of D10.00 each as "registration fee" and are trying to issue out small loans from the amount collected. They are also requesting an amount of D5,000.00 as loan from the authorities in order to support themselves.

All the above mentioned groups are also engaged in vegetable garden projects sponsored by the European Economic Commission (E.E.C), (now European Union - EU) under the LOME III Artisanal Fisheries Development Project. The gardens are located at the respective landing sites. These gardens are of great help to them, as they provide them with both vegetables for the household consumption and cash for the purchase of other necessities. At the same time this combination could clearly be seen as a workload on women.

If the activities of these women are built into the plans and programmes of development agencies in The Gambia, womens' contribution to development will be more tangible.

The importance of women as processors and their contribution to the household both economically and domestically is evident and incomparable, not mentioning the efforts put in organisations to enable manage their businesses towards the development of the home as a whole.

Women experience disadvantages compared to men. The roles played by men and women are not inherent in biological fact, but are defined by cultures. In the next chapter we shall look at the socio-cultural dimension in order to get a better view why it is a woman's duty to combine all these roles.

6.0 SOCIO-CULTURAL DIMENSIONS OF FISH MARKETING

This chapter will attempt to highlight some socio-cultural dimensions of marketing of fish in the Gambian artisanal fisheries. It aims to identify family relations and expectations and some of the factors that are taken into consideration in the determining of fish price by the fishermen to the "banabana". It also looks into the role of the "banabana" and attempts to answer the question "can the banabana be excluded from the fish trade and rather have the fisherman market his catch directly to the consumer?".

6.1 The ethnicity of the fishing family

Traditionally fishing in The Gambia has been mainly specific to the Serrer tribe. They are generally of Senegalese origin although many have become Gambians by virtue of intermarriage, among other things. However, the small number of Gambian Serrer still maintains for the most part their tradition as fishermen. In the village of Gunjur (where most of this study was conducted) the Mandinka tribe forms the majority but they are more involved in land agriculture. It is relatively recent that Mandinkas have taken to fishing as a means of making a living. Other tribes that take to fishing for their livelihood include the Jolas. The Lebous, another ethnic group from Senegal that migrated to the Gambia are 100% fishing families. They engage in nothing else in Gunjur other than fishing and fishing related activities such as boat building and fish marketing. This ethnic group contributes significantly towards fish production on Gunjur beach (more than 70% of the "white" fish species). These include high value species such as the "kujeli" (*Polynemus quadrifilis*), "Tonone" (*pseudolithus typus*), sole fish, lobsters etc.

6.2 Conjugal relation and expectations

Traditionally women marry early (about the age of 15) from the beginning of child bearing years. Gambian women comprise 51% of the population and the productive years is considered to be between the ages of 15 and 50. Marriage is not a contract between the two individuals only but rather between the extended families of the individuals.

Culturally, The Gambia is a male dominated society, women have little decision-making power. As noted by Bartos (1989), final decisions are done by the husbands. As a wife the woman's role is to cook for the husband, wash his clothes, give birth to their children, and his duty is to contribute economically to their feeding, clothing, provide shelter for the wife and the children and to pay their school fees. The interviews I have conducted shows that the situation is not always so, Sometimes men do not fulfil their obligations.

Women are value for their fertility. It is generally accepted by both men and women that the socio-economic status of the women is inferior to that of the men, in spite of the fact that most of the women take care of the financial responsibilities of the household, that is feeding the entire household and clothing the children.

Divorce is a complex issue and the process is conducted between the two extended families and not by the dissenting couple. A man divorcing the wife is a faster process than a woman wanting to divorce the husband. Divorces are normally due to adultery, incompetence as a housekeeper, gross maltreatment, non support of wife and children or sterility.

Polygamy is not a question of fertility, it is also practised in households where the first wife has already given birth to many children. Polygamy especially occurs in muslim families, since the religion allows a man to marry up to four wives.

6.3 Importance of children in the fishing family

Having children and being a mother in marriage is very important, it gives the woman value, she gets respect and love by her husband and acceptance from her in-laws. Having children outside marriage is not uncommon. Birth rate is very high, 49-51 per thousand. It is considered to be among the highest in the world (Sosseh, 1992)

Women do about 73% of the house work, men about 6%. The remaining 21% is done by the children especially girls who assume the role of surrogate mother thus limiting their access to school, (Sosseh, 1992). Children do help their parents both inside and outside the house. Older girls within the family help in caring for the younger ones and also in fetching water. Sometimes they are with their mothers at the landing site taking care of their younger brothers or sisters while their mother is busy carrying fish to the trucks or taxis or busy processing fish. She sometimes helps in making food or cleaning dishes. Boys normally do not help in doing domestic work nor in taking care of young ones. Mostly they are out playing, when they grow old enough to go out to sea they normally join their fathers on fishing trips and sometimes help in repairing of fishing nets. Generally children are expected to help and support their parents when their parents grow older. Traditional beliefs and customs are very strong, more so in the rural areas. The male-child preference leads couples to continue having children in an attempt to fulfil their desire of having at least one son. A wife who cannot give birth, may often result in the husband marrying a second wife.

6.4 Importance of grandparents in the fishing family

In a household where there is a grandparent, especially a grandmother, she assists in caring for the smaller children whilst the mother is away on the beach or at the market centre. Some do help their daughter or daughter in law at the landing sites. Grandparents teach the children important values of the culture and the norms as well as story telling. They give advice and contribute in trying to keep the family together. Old people are loved, respected and well cared for. The word of the elderly person is considered and respected.

6.5 Role specialisation within the fishing family

The few Mandinka fishermen that operate on this beach generally specialise in catching the small pelagic bonga (*Ethmalosa fimbriata*) alongside their Serrer compatriots. One common thing that is evident in all the ethnic groups is the specialisation in the activities that male and female members of the respective families perform. As indicated earlier, only men go out to sea to catch the fish, whether they are the low value small pelagics like the Bonga or the high value demersal species like the "Kujeli" or lobster. The women on the other hand as indicated by Overå in Ghana (1992) and Rodriguez in Gambia (1992) are specialise in the post harvest aspects such as processing and/or marketing. As also seen in chapter 5 the role of women in the fishing family include among other things, the biological role of the woman as a mother and the cultural/ traditional role as a wife and manager of the household's daily domestic chores. She raises the kids, prepares the daily meals, does the laundry, and in some instances, markets the catch fresh to the middlemen or processes and takes the product to market. There is therefore a gendered division of labour within the fishing family, with the men specialising in the production of fish (as the main income generating activity) whilst the women's roles as fish processors/marketers are combined with domestic roles as well and they earn less their husbands.

6.6 Relationship between the "banabana" and fishermen

"Banabana" are intermediaries/middlemen, this term is used referring to a person who act as link through all the stages fish goes through from the time it is landed by the fisherman until it reaches the consumer.

The "banabanas" are both male and female fish traders and creditors. In my discussion of the "banabana" I will use the term "banabana" instead of middlemen so not to make female middlemen invisible. But the way men and women perform as "banabana" is different.

Within the socio-cultural context the relationship between the "banabana" and the fisherman can have an effect on the pricing of fish. The type and extent of the relationships can vary

from kin relationship to ordinary "buddy" friendship. The relationship can also be based on a financial dependency relationship where the "banabana" provides assistance in the form of loans to the fisherman in time of fish scarcity and thus low income for fisherman.

6.7 Women as "banabana" and their relationship with the fishermen

There is a close relationship between fishermen and "banabana". Some of the "banabana" are in one way or the other related to the fishermen. Some of the "banabana" are wives, sisters, cousins, neighbours or long term friends (referred to as sister in the Gambian custom) of the fishermen. A long term neighbour in the Gambian context is considered a family member and is referred to as a relative, especially when they are good neighbours. This makes the trade system complex especially in determining fish price. The "banabana" always expects a price reduction from the fisherman which he normally gets because of the kin-relationship (Stivens 1981, Harris 1990). This kind of relationship has been discussed by the economists and anthropologists within different theoretical schools as to whether or not these relations imply economic exploitation of the fisherman by the middleman or whether there is mutual benefit to both parties, (Johnsen, 1992). A question which one needs to ask is, how they usually combine this "exploitative" role with being an "exploited" wife and mother? Gambian women in their role as "banabana" exploit the fishermen and at the same time favour them by marketing their catch which otherwise they would find difficult to market themselves in which I would say there is some degree of mutual benefit and dependence to both parties. Unlike the Ghanaian system, in The Gambia majority of the female "banabana" depend on the fishermen for credit because of the low quantity they handle. In Africa and South East Asia, a very large share of the market trading, selling as well as buying, is left entirely to women. In Ghana women account for more than 80% of the labour force in the trade, (Boserup, 1970). Within the fishery sector of Ghana fish trade is dominated by women, the roles of intermediary are in the hands of women referred to as fish mammies. In the Gambia men have the upper hand in the trade, and both men and women compete in the trade market. I would say that in the Gambian system there is not only fish "Mammies" but "Daddies" as well.

The wife of the fisherman or a regular (fixed) "banabana" of the fisherman calls the

fisherman's canoe hers or his even though neither of the two owns the canoe. What they mean is that they have first priority to purchase the catch even in the presence of competition from other "banabana" either of them (the wife or "banabana") could purchase the catch from the fishermen and then resell to other "banabana".

The wife normally get price reduction, and after selling the catch she takes her profit and pays her husband/the fishermen in cash. When she has a lot of competitors due to gluts and finds it difficult to make a good sale or profit (which she refers to as poor market) she still has to pay back what she owes him. Sometimes she pays part of the debt and postpones the rest. Some times this debt increases to a larger amount which she would be gradually paying from the profits she makes each time she markets her products. The same thing applies to the sister, cousin or the neighbour. Here the female "banabana" depend on the fisherman for the supply of fish and credit.

6.8 Men as "banabana" and their relation to fishermen

There is some differences between the relationship of the female "banabana" and male "banabana" we have seen now that the majority of the female "banabana" depend on the fisherman for credits. When men act as "banabana" the relationship is different. Here the majority of the fishermen are perpetually dependent on the "banabana" for credit and consequently the fishermen are obliged to sell to them. This shows power differentiation in gender relations within the Gambian artisanal fishery.

I will discuss the relationship between two fishermen, Demba Camara and Alasana Saine and a "banabana" Karamo Janneh as an example of male to male fish trade relations. Demba Camara is a Mandinka fisherman who fishes for high value demersal fish. He uses an 8 Hp outboard engine and operates a set gill net of about 150 meters. Karamo Janneh is a "banabana" who has first priority to buy the fish caught by Demba. The two of them live in the same village and are age mates, (both in their late 40s). Now he is a "banabana" buying and selling fish and even owns a canoe that is operated by another fisherman. He does not buy only from Demba Camara but also from other fishermen. Because of their financial position Karamo and others like him play an important role in the life of fishermen like

Demba and Alasana Saine. Alasana operate Karamo's canoe. In time of lean catches Karamo virtually feeds the families of Demba and Alasana through loans either in cash or kind. As women financiers in Ghana do, Karamo also provides gears and other accessories on loan to Demba; he equips the canoe operated by Alasana. Essentially he hired Alasana to fish for him, and the proceeds from the operations shared are in this manner, 1/5 of the money goes towards the maintenance and subsequent replacement of the net. In paying for the fish any loan Karamo had extended to Alasana and Demba is repaid in kind (fish). Therefore if the true price of the fish were for example D100, other considerations (such as an earlier favour or loan extended to either Demba or Alasana) will cause them to sell the fish to Karamo for D60 or less. This is to reciprocate the earlier favour. This bondage in Karamo over Demba continues until the whole loan is repaid, and it is hardly ever paid in full. Before this could happen, Demba would have come back to Karamo for more assistance which is further added on to the outstanding balance which increases the total loan. It is in this way that Demba is perpetually tied to Karamo in a vicious cycle of what can be exploitation. It is important to note that Karamo does not ask for any interest on the loan he extends to either Demba and Alasana. One could however argue that the "interest" charge is reflected in the lowering of the price of the fish from its true price for which Karamo pays for the fish.

The consequence of this kind of relationship is clear: perpetual dependence of the fisherman on the "banabana" this could be seen as resulting in economic bondage and virtual enslavement/exploitation (Chambers, 1983). As mentioned above the question to answer is "should and can the "banabana" like Karamo be excluded from the link between the fisherman and the consumer?" In my opinion we would say that this option is practically impossible to achieve, for in as much as there is a clear case of economic exploitation of the fisherman by the "banabana" the latter plays an essential role. He distributes fish throughout the country, supplying fish to the consumers in towns, villages and homesteads scattered across the country. In addition he performs other vital functions which I would discuss in the next chapter.

I will conclude by saying that the women "banabana" and the fishermen trade relationships are on smaller scale, the fishermen are more independent (economically) and their relations are normally closer kinships ties or other ties in the relationship while the male "banabana" and the fishermen trade relationship could be seen as competitive or exploitative and at the

same time they handle a larger scale than their female counterparts.

In concluding about the real price paid by the female "banabana" and the male "banabana" we have seen that the male "banabana" get price reduction from the fisherman due to the debt he owes the "banabana" and the female "banabana" get price reduction because of kinship ties or being a fixed customer of the fisherman. Beside the real price of fish is the price paid to the fisherman since it is accepted by both parties. This kind of relationship cannot be seen as exploitation since there is mutual benefits on both parties. Culturally in the Gambia I will argue that it is husbands who are suppose to feed and cloth the family. Practically this is not happening in many households. In the fishery family base on interviews it is normally the woman who feed the family. From the catch she bought from the fisherman or "banabana" is where is remove for the household and the vegetables she uses in preparing the food are either bought from her income after selling fish or from her garden. For that reason obviously in many cases the wealth of the woman (wife) would be less compared to his. This would be further discussed in chap. 6.

"Banabana" is a specialised trade requiring specialised skills in many instances, and it takes reasonable length of time to acquire the skills. Further it requires equipment and materials that the fisherman may not be able to acquire together with his gears (nets, outboard motors, canoes, etc). Equipment and capital items like bicycles, and the cash to buy or hire a refrigerated truck to travel to distant markets. Access to credit (especially institutional credit by the fisherman is relatively difficult). The role of the "banabana" within the community is important, and cannot be dismissed off hand. According to Kotler (1991), the middleman has four kinds of utilities assortment utility, time utility, place utility, and quantity utility. If the fisherman were to fulfil all these functions he will certainly not have the time to go fishing.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Through case studies, this thesis has examined some of the factors that influence the supply of fish protein in The Gambia, and how these can help to explain the causes of insufficient fish supply. This chapter will discuss the main findings and give conclusions of the study. Suggestion will be given on the strategies that can help to improve fish protein supply to the people and on how government policies can improve the performance of marketing and distribution of fish and fish products.

From the foregoing description and analysis of the marketing of fish within the artisanal sector of The Gambia, several important conclusions can be drawn. The constraints and opportunities observed within the system will form the basis of the conclusion and recommendations. The research problem will be discussed based on the analysis of these observations.

The research problem treated on the analysis is the role of men and women in the marketing and distribution of fish and fish products. Several questions were raised on the socio-cultural co-operation in trying to find answers and solutions to the problem (page 5). In the preceding analysis, it is clear that focus on the social relations of the system and of gender relations is necessary to reach improvement on the situation of the fish protein supply at the domestic markets.

It is clear from the findings that, the supply of fish protein is insufficient and that women get less attention compared to men. First and foremost is the question of the incentives put forward by the government in improving fish protein production. As a matter of fact, the incentives put forward benefit the fishermen not the actors of the processed fish protein suppliers (women processors).

In the preceding analysis, I have discussed women processor's and marketer's "banabana" courses in daily life and the barriers they face in trying to meet their goals, that is being economically independent and successful as "banabana".

The barriers and possibilities for an increase in fish protein supply will be discussed from two angles in this chapter:

1. "development in the marketing and distribution systems".
2. " Work combinations, the social system and credit facilities for women processors"

7.1 Development of Marketing and Distribution

The development of the marketing and distribution systems concern fish handling and product development. Specifically this entails development of the processing technology employed by the artisanal sector, transportation to markets, including the improvement of the road network and methods of moving fish and fish products from the fisherman to the consumer. Furthermore, it concerns the development of the infrastructural facilities, communication network including ice availability. Improvement of the factors could help in the marketing and distribution of fish and fish products.

7.1.1 Fish Handling

Fresh fish is handled very roughly, sometimes even thrown on the ground on the beach under high ambient temperatures. In the rainy season water temperatures are reportedly very high, and fish caught in set gill nets for over two hours before it is collected by the fisherman often gets rotten. Sometimes up to 60% of the daily catch spoil before the fisherman lands at the beach (Fisheries Department 1993). The situation is compounded further by the long time it takes to haggle between the fisherman and the "banabana". In this time the fish is usually laid on the ground and spoilage continues. By the time they agree on price and the fish is moved to the market, deterioration has progressed to reduce the quality of the fish and consequently the price of the fish. It is often that a good part of the consignment would not even reach the consumer because it rots well before the fish is moved to market, which reduces the total supply of fresh fish on the market.

The general lack of icing is not helping matters especially in the tropics where mostly, the temperature ranges between 20-40 degrees centigrade. Ice under such temperature melts within a short time especially if the ice used is not much. Since ice plants are at distance and costly, the solution to the problem does not only lie on better handling and appropriate infrastructure. The actors of the processed products need to be given some attention, that is the women processors. Usually spoilt fish, which cannot be sold fresh, is gutted salted and dried by the women for the dry fish industry. Thus, the main raw material supply for the sundried fish trade is the fish that cannot be consumed fresh because it has gone bad. Thus this fish reach the consumer also and add to the protein supply.

7.1.2 Fish processing

Women are less recognized than men by the public fishing authorities in term of their contribution towards the supply of fish protein to the Gambian population. The processing technology applied is relatively low level which in my mind, needs to be improved upon.

Women are usually found toiling over pits dug out in the grounds or pans, smoking small quantities of fish to supply local markets. The use of holes dug in the ground with jute bags spread over the product is generally unhygienic. The laminated cartons used as fuel, which on burning could release the gluing material on to the product, could be hazardous to the health of the consumer. Because of the size of the hole and pan used by the women, the amount they can smoke per time is small especially when compared to the male processors/traders who operate on a larger scale for the export market. However, a major constraint experienced by male smokers is storage of the product. Products were often observed to be infested with maggots, blow flies and other pests that reduce the product both qualitatively and quantitatively to the final consumer.

In conclusion therefore, the technological aspect of fish handling and processing at the small-scale level needs to be improved upon. The opportunities inherent in better handling and processing of fish are reflected in the form of higher income for both the fisherman and the trader on the one hand, and more fish for the better quality for the consumer. The Fisheries Department should therefore take it upon itself to educate the operators within the

artisanal sector to enhance their performance. Fishing method might need to be changed to reduce the incidence of spoilage at sea, and also fishermen and traders need to be educated about good handling of fish. Women processors use low level technology in their processing method because of lack of cash to build better smoking facilities. The government has a role and obligation to play towards the provision of better technologies for fish processing, if the incentives it provides for the sector are to be of much significance.

7.1.3 Infrastructure

The study did also show that the marketing and distribution network is plagued with problems (as expressed by operators or as observed during the interviews and surveys). Generally, there is a lack of a good road network that links fish landing sites and market centres. Some roads from some landing sites are impassable during the rainy season. This problem (highlighted by the Fisheries Department) becomes so acute at times that traders do not bother to visit them to evacuate the catch to market. The main road is also bad, for half of the way to Soma (figure 1), that a journey that should have taken two and half hours would normally last twice as much. This further leads to higher rate of deterioration, and consequently a reduction in the supply. Further distribution from the main road to more distant village markets of fresh fish is usually done on foot or donkey cart on bush roads. Usually these are products that have been subjected to rough handling. Clearly, under the ambient temperatures, these products cannot be of good quality when they reach the final consumer.

Distribution of the fresh fish by the cyclist, trucker, taxis, donkey, public buses etc. to market centres are all plagued with the problem of getting sufficient ice. The male "banabanas" are the majority of the traders in the fresh fish business. Women concentrate more on the processed products. This has been discussed in the preceding analysis. In chapter 4 I have shown the barriers male "banabanas" faces in distributing fresh fish products. Generally there is shortage of appropriate transportation and this is compounded further where the "banabana" he/she have to wait with their fresh fish products containing little or no ice until the taxis has its full load of passenger before it sets off towards the market. Unlike the male "banabana" the female "banabanas" trading processed fish products

normally distribute their products by foot, on donkey carts or join the public transports to distant markets or to "Lumos" at Farafanni and Brikamaba. The major problem faced by the women "banabanas" is the smaller loads they trade compared to their male counterparts because, the men have more financial resources and as such greater access to the raw material.

At the market centres, women display their products; by spreading them on the ground or on concrete platforms in the open. The worst case is where fish spread on sacks laid on the ground for display. The relevant authorities should provide the appropriate facilities since all uses of the market pay a certain tax each day of the week.

In conclusion, I would say that ice is important where fresh fish is to be considered, but it is not the solution to the problem especially in the tropics, where ice melts very fast due to the hot climate. The cured products (smoked, salted and dried and sun dried products) are accepted by the Gambians and it gives a good flavour and texture in spicy soups and stews. In addition they are easy to transport and store compared to fresh fish product which need to reach the market within a shorter time limit. A situation like this clearly requires an improvement of the whole system if the supply of fish is to reach the farthest parts of the country. Since the construction and provision of ice plants and other facilities that enhance fresh fish distribution and marketing involve huge investments and the government has limited resources, priorities has to be made. Improvement on the cured products would be less costly and it would improve fish protein supply the most than building up the distribution for fresh fish.

7.1.4 The importance of the "Banabana"

From the discussion of the relation of the "banabana" and the fishermen in chapter 6 it is clear that the "banabana" within the artisanal sector has important functions to perform in the provision of fish to the Gambian people. Their functions include: Risk-taking, credit provision and wholesaling and retailing.

1. Risk-taking:- Risks are involved in the fish trading business, especially for those handling fresh fish in the tropics where refrigerators or insulated transport facilities are virtually nonexistent, and road conditions frequently extremely bad;

2. Credit provision for capital and fishing operations:- This is in the form of cash and other material input to finance fishing operations. This in turn proceeds to enhance the survival of the fishermen. Without this kind of assistance from financiers it can be argued that fishermen will have a hard time to find the money on their own;

3. Wholesaling and retailing:- Even if fishermen could finance their operation without financial assistance from "banabana", they would not be able to find the time to sell their catch especially in distant markets. They have other things to do; their nets need mending and repairing, they need to travel 14 kilometres to purchase fuel for the next day's fishing trip, they need to rest after a hard day's work out at sea, etc. The time would not be available to perform all these tasks including selling to consumers;

Clearly therefore, the "banabana" has a very important role to play in the whole distribution network in spite of the exploitative aspects they represent.

In concluding on the case of the example of exploitation between the "banabana" and the fisherman, in chapter 6 I was discussing the relationship between male "banabana" and fishermen. A solution should be sought whereby the stranglehold the "banabana" has on the fisherman is reduced. Indeed, this is the view expressed by some fishermen. They have looked at the feasibility of the option of removing the "banabana" from the chain with an idea of organising the artisanal fishermen into a reliable cooperative organisation. The organization should be responsible in collecting and assembling their catch for marketing in

distant and nearby markets and the profits that are generated should be used in expanding and strengthen the organisation's financial base as well as providing loans for the members.

Formality in an organization is important in a way that the roles and relationships are specified independent of the personal characteristics of the occupants of positions. (Scott, 1987).

I would say that receiving credits through Banks are more formal than receiving from the "banabana". The consequences are that the loans given have to be paid with interest at a given time limit, and they are followed with strict rules and regulations. This is not the case in the informal organizations, as the "banabana"-fishermen relationship where the fisherman uses the time needed to pay back the loan. In addition the fisherman can get new credit on top of the old one, and this might be difficult from a formal organization. The negative aspect recognised is that the fishermen have to reduce the price of fish for the "banabana". If fishermen want to prevent being long term indebted to the "banabana" the first credit should be paid before taking a new one. Not only are the terms of payments from a formal organisation more unreasonable, the terms might not be beneficial for the fishermen, especially if they land less catch for example due to bad weather conditions, he might not earn enough to cover his debt.

The positive effects in kin relation in the buying and selling of fish in the Gambia are worth maintaining. This kind of cooperation has been working effectively especially for both the male "banabana" and the female "banabana" who cannot get access to credits from the Fisheries Department or through banks. I will conclude by saying that the assistance given by the "banabana" to the fishermen enable them to function in their business which in turn contribute in helping "banabanas" to get access to fish to supply to the to the markets. Thus there is mutual benefits.

Concerning the female "banabana" and the fisherman exploitation. The female "banabana" is exploited in the case where she buys fish from her husband and feeds the family including him. The other case is where she markets his fish for free.

7.2 Position of women in the Artisanal Fishery Sector

Women “banabana”s are the backbone of the processed fish products found in the Gambian markets but unfortunately they are not getting the attention needed from the government in order to meet their goals as successful “banabana”. This is clear from the preceding analysis, where I have shown how women go about combining the roles of economic, social, domestic and fish related activities in trying to pursue values of economic independence as well as to fulfil the expectations set up by the society for them. That is their duties as wives and mothers and as actors of the domestic sphere. Women fulfil the domestic duties in every point. Even though the combination of domestic work and fish related activities is a workload on them. They did not complain much on this issue instead they are more concerned on how to improve their economic situation in order to increase their production whereby the processed fish products supply at the market would be increased also.

It is important for women to earn money in fish processing and trading in order to contribute in the household (feed and cloth their children) and to be more free from the dependence on their husbands for economic assistance. We have seen in the preceding analysis that some women manage to "make it" (are economically independent) but it is only a few of them. The majority find it difficult to "make it" with the little profit they make from processing and marketing of small quantities of fish and fish products and from the vegetables they simultaneously sell on the side. Women manage to combine these roles by the help of their children. Having children is also an economic necessity. Children (daughters) together with the cooperation in the household help women in the economic and domestic activities.

7.2.1 Women cooperation

The kinship network in the fishing community did play an important role. It creates cooperation in the household and beyond (at beach site, at the market place, processing houses, gardens places, at the "kaffos" etc) the household . Women active in fish trading and processing consider each other as sisters thereby helping each other in lending tools, drying racks or giving their turns to other women to get access to fish to process and market, among other things. The social organization of kinship relations help many to escape the

perpetuation of poverty. This kind of cooperation help many of the women to make enough money to support themselves and their families. The "kafo" is a bigger network, it reaches beyond the extended family. However, it is usually limited to women of the same ethnic group. It is a self organizing cooperation which women have organized to overcome barriers of lack of credit facilities. The money the "Kafos" have generated cannot provide for all the members. Most of the "Kafos" are requesting loans form the Department of Fisheries to expand their business. Women have proved their ability to organize and create by themselves. Therefore it is recommended that assistance be sought from international agencies or to be provided by the government to supplement the efforts already put in practice by the women, by providing the credits demanded by the "Kafo's". This may be a better way of supporting women and fish supply than giving credits to individuals.

7.2.2 Cultural values of womanhood

Culturally, the most important factor for women's status is to be a mother. Giving birth is highly valued in marriage. A woman is more accepted by her husband and in-laws when she gives birth in marriage. Those without children usually face the problem of having to share a husband with another woman or with three other women. However the practice of polygamy is not only an infertility issue, it has a lot to do with the muslim religion.

This thesis has been preoccupied with how women may improve domestic fish supply. This question may be reversed to how can improvements in fish business raise the status of women? In some households the economic status of women prevent polygamy. Women who make good business in fish trade show much more decision making in the household in front of the husband. The ability to make decisions on their own could reduce the oppression of women mentioned in chapter 2. By improving their economic opportunities in fish supply women's position in relation to men will improved.

7.2.3 Recommendations of credit facilities

Generally, there is little or no form of an institutionalised credit system available to the Gambian artisanal fishery sector. The main source of credit for women entrepreneurs within the artisanal sector has been the Fisheries Department which operates a revolving loan scheme for artisanal operations. Mostly however, this loan scheme benefits more the male sector than their female counterparts. For the attainment of the goals set out by the government the women folk engaged in the fishing industry must be given the opportunities extended to their male counterparts. Fish processing and distribution requires a lot of financial capital which is usually out of the reach of most of the Gambian processors. It is true that generally the acquisition of capital in contemporary Gambia is easier for the male “banabana” than his female “banabana” especially where properties to secure loans are required. Because of these problems women form themselves into “Kafos” to contribute money to lend to the members to enhance their operations. More credit should be extended to the womenfolk from the Fisheries Revolving Loan Fund. Some of the main obstacles to accessing this fund by the women are the unfavourable terms and conditions attached to the loan. Collateral security requirements therefore should be eased to reflect the reality of the situation; the economic condition of the women folk should be taken into account in the evaluation of loan requests from them.

Other lending agencies such as banks, should be encouraged to open lines of credit designed specifically for women operators within the artisanal fisheries sector who serve as fish processors and marketers or to their “Kafos”. If the activities of these women are built into the plans and programmes of development agencies operating within the sector, their contribution will be more tangible and far reaching. Their goals and hopes would be fulfilled, there by the governments' policy objective and increase the domestic fish supply could also be meet.

Following the example of other artisanal activities e.g within the tourism sector, benefits accruing from the activities of the women entrepreneurs are largely invested locally. It will help to improve the quality of life, an essential factor to limit rural- urban drifts, by building houses, schools and local shops. These women demonstrate a great capacity for innovation, and provided they are recognised and fully associated with the formulation and

programming of development projects, their activities will be far reaching (Tourism, personal communication, 1993).

It is recommended that the Gambian government be more responsive to the plight of the women fish processors and marketers as well as those other women engaged in other aspects of the industry such as the porters by providing and developing of infrastructure such as smoking and sun drying facilities. The heavy pans of fish women porters carry on their heads can have some effect on their health in the long run (for example they can develop back, waist and neck problems) and the prospect of lifting themselves from the level of porters without any assistance from the government and other formal lending organisations are bleak.

If Gambia government is to achieve its objectives of supplying fish protein to the local population it must develop its distribution and marketing systems. The women processors and the various women entrepreneurs must be assisted in the acquisition of resources (finance, materials, equipment etc.). The redirection of the incentives put forward by the government towards the women processors will improve the situation of the protein supply in the Gambia. It can also improve the economic situation of the women which in turn can ease their work load, for example, those who combine agriculture (growing vegetables) and fisheries. They can then concentrate in the fish business only.

APPENDIX 1

Questionnaire and interview guide

Questionnaire for the Sole trader (Banabana)

- How long have you been operating on this beach ?

- Is this the only beach from which you operate? Yes/No If no indication of other beaches from which he/she has operated

- Species bought:
 1. Fresh small size pelagics
 2. Smoked salted pelagics
 3. Fresh large size demersal species
 4. Salted/dried demersal species
 5. Others

- Indication of prices at which each species is bought.

- Do you have a special agreement to buy from a particular fisherman?

- Describe the handling, preservation and storage principles you use prior and during marketing of fish?

- How does the trader move his fish to the market place ?

- Where do you sell your fish?

- What are the principle problems that affects your operation in the marketing and distribution of fish ?

APPENDIX II

Questionnaire for the transport system

- What kind of transport is utilised in the distribution network?

- Do you use storage infrastructure during the operation of the transport system (before reaching final destination) ?

- What kind ?

- What is the cost operation and maintenance for a typical journey ?

- What are the principle problems that affects your company in the fish distribution network ?

APPENDIX III

Questionnaire on consumers

- Do you eat fish ?

- If yes where do buy your fish ?

- In what form do you buy the fish ?

- Why do buy fish ?

- How often do you buy fish in the week and how many kg/time ?

- For how many people ?

- Do you have any complains about the fish you normally buy ?

APPENDIX IV

Questionnaire for the fish processors both men and women

- What is your relationship with the fisherman you normally purchase fish ?
- What type of species do you normally buy ?
- Does it cost more if you buy from the middleman ?
- What is the labour consumed for processing the fish ?
- What kind of facilities are needed ?
- How do you transport the fish and what is the total cost ?
- What do use profit on ?
- How do you get financial support ?

APPENDIX V

Survey on women porters

1. Name of women.....

2. Are you married Yes No

3. Age.....

4. No of people in your household.....

5. Do you have children Yes No

If yes how many.....

6. Where do you come from?

7. How do you get to the beach?

- on foot

- by taxi

- other

8. How do you go back home

- on foot

- by taxi

- other

9. What is your daily income on the beach?

10. During what period do you work on the beach?

11. How do you spend the money you earn on the beach?

Appendix A

Tables

Table 1. Estimates of fish biomass, potential yields and catch

STOCK	BIOMASS (MT)	POTENTIAL YIELD (MT)	CATCH (MT)
Pelagic	160,000	60,000	?
Demersal	30,000	15,000	?
Crustacean	No estimates	1,000	?
halopods	No estimates	400	?
Riverine stocks	No estimates	2,700	3,000

Source: Department of Fisheries Gambia (1992)

Appendix B

Table 2A Level of participation in the artisanal fishery

YEAR	1985	1986	1987	1988	1989	1990	1991	1992
GAM								
F.T	720	560	670	657	N.A	618	N.A	355
P.T	289	310	359	251	N.A	271	N.A	736
FOR.								
F.T	428	324	439	475	N.A	507	N.A	416
P.T	19	140	144	152	N.A	61	N.A	41
TOTAL	1465	1334	1612	1535	N.A	1457	N.A	1548

GAM = Gambian

FOR = Foreign

F.T = Full-Time Fishermen

P.T = Part-Time Fishermen

N.A = Not Available

Source: DOF, Gambia (1993)

Appendix C

Table 2B. Level of canoe motorisation in the artisanal subsector

YEAR	MOTORISED CANOES			UNMOTORISED CANOES			TOTAL
	GAM- BIAN	FOR- EIGN	SUB. TOTAL	GAM- BIAN	FOR- EIGN	SUB. TOTAL	
1985	165	180	345	802	276	1074	1419
1986	129	174	303	722	277	999	1302
1987	146	393	539	770	364	1134	1673
1988	163	313	476	716	325	1041	1517
1989	N.A	N.A	N.A	N.A	N.A	N.A	N.A
1990	165	228	393	723	1059	1782	2175
1991	N.A	N.A	N.A	N.A	N.A	N.A	N.A
1992	184	252	436	906	1065	1971	2407

Source: DOf. Gambia (1993)

Appendix D

Table. 3 Artisanal and industrial production (tonnes)

Year	1986	1987	1988	1989	1990	1991	1992
INDUST- RIAL MARINE CATCH	666	6537	1102	4005	2624	2759	2949
ARTISA-NAL MARINE CATCH	9906	5139	7224	10914	11573	19939	10783
ARTISA- INLAND CATCH	3064	2700	2700	2700	2700	2700	2761
TOTAL PRODUC- TION (ALL)	13636	14376	11026	17619	16897	25398	16493
TOTAL ARTISA- NAL PRODUC- TION	10572	11676	8326	14919	14197	22698	13731
ARTISA- PRODUC- TION IN % OF TOTAL	95.1	54.5	90.0	77.3	84.5	89.1	82.0

Source: FAO Fishery Statistic
Dof. Gambia (1993)

Appendix E

Table 4. Fish supply and consumption balance sheet (1986-1992)

	1986	1987	1988	1989	1990	1991	1992
Total domestic production	13636	14376	11026	17619	16897	25398	16492
Exports	7600	5300	5600	5600	5000	2730	?
Imports	5120	9727	6794	7000	7	54	4783
Total domestic supply	11156	18803	12220	19019	11904	22722	?
Population ('000)	767	793	820	847.9	876.7	906.5	937.3
Per capita supply (Kg)	14.5	23.7	14.9	22.4	13.6	25.1	?

Source: FAO Fishery statistics and DOF, Gambia

Appendix F

Table 5. Export from the Gambia (1986-1990)

Items	Volume ('000 Tonnes)					Value (D'000,000)				
	1986	1987	1988	1989	1990	1986	1987	1988	1989	1990
G/nut	34.7	21.0	30.5	24.3	20.2	57.9	47.3	82.4	57.8	91.0
Fruits	N/A	N/A	N/A	N/A	N/A	N/A	0.5	N/A	78.0	10.5
Cattles	N/A	N/A	N/A	N/A	N/A	N/A	0.5	N/A	2.4	N/A
Fish	7.6	5.3	5.6	5.6	5.0	6.8	6.5	15.6	22.6	23.7
Hides	N/A	N/A	N/A	N/A	0.3	1.7	1.9	1.7	2.7	3.2
Cotton	0.6	0.4	0.4	1.2	1.0	3.9	3.7	3.2	7.7	10.0
Others	N/A	N/A	N/A	N/A	N/A	4.0	5.8	11.0	4.1	5.2
Re- Export	N/A	N/A	N/A	N/A	N/A	64.5	88.8	0.7	51.3	63.2
Total (D'000,000)						137.0	155.0	114.0	156.4	207
Exchange Rate in (Dalasi/\$)						3.9	7.3	7.1	7.0	7.8
Total (U.S.\$ in '000)						35.9	21.4	16.0	22.3	26.5
% Fish Contribution						4.9	4.2	13.6	14.5	

Source: Fisheries Department, and Central Statistics Department (1991, Gambia)

Appendix G

Table 6. Revenue from fishing licence and fines (1987-92)

Year	Licence Fees	Fines	Total
1987	1,778,485	-	1,778,485
1988	1,520,478	1,469,084	2,989,562
1989	2,472,217	447,220	2,919,417
1990	2,846,564	3,072,062	5,918,626
1991	4,306,618	3,046,920	7,403,538
1992	2,584,872	9,702,319	4,201,925

Source: DOF., Gambia 1993

Appendix H

Table 7. Women porters

NAME	AGE	MARITAL STATUS	NO OF CHILD-REN	NO IN HOUSE-HOLD	% TIME AT JOB	A.E.P.DD ALASI
I. Badjie	40	M	5	11	100	7.50
J. Manneh	26	M	2	6	60	32.50
M. Touray	26	M	1	8	50	12.50
M. Mendy	19	S	0	7	100	7.50
M. Touray	35	M	0	2	75	8.50
F. Mbye	15	S	0	9	100	10.00
S. Saily	32	M	1	7	100	15.00
F. Ndure	28	M	4	5	100	15.00
F. Sanyang	35	M	8	9	100	20.00
F. Kebbeh	35	M	3	4	100	15.00
B. Saily	25	M	1	10	100	15.00
I. Jatta	30	M	4	11	75	40.00

Source: from interviews;

A.E.P.D (average earning per day)

Appendix I

Table 8 Contribution to gross domestic production by industry ('000000)

	1983	1984	1985	1986	1987	1988	1989
Agriculture	131.9	85.3	138.7	195.4	317.4	312.3	283.4
Live-stock	29.1	34.5	34.6	53.9	94.4	128.2	145.6
Fisheries	10.1	12.8	16.1	22.3	41.8	41.3	43.1
Total (GDP)	606	618	794	1085	1486	1636	1942

Source: Central Statistics Department, Gambia (1991)

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