

**GHANA/NETHERLANDS ARTISANAL
FISH PROCESSING PROJECT**

RESEARCH PROJECT #3

**SOCIO-ECONOMIC STUDIES ON
PILOT TRAINING VILLAGES**

PHASE FOUR REPORT



**BASELINE SOCIO-ECONOMIC STUDIES ON
1992 PILOT VILLAGE: LANGMA**

By

PHOEBE LOKKO
Food Research Institute, Box M.20, Accra

AND

SALOME ANSON
National Council on Women and Development, Accra.

December 1992

CONTENTS

	PAGE
SUMMARY	
ACKNOWLEDGEMENT	
1.0 BACKGROUND INFORMATION	1
1.1 Introduction	1
1.2 Choice of Pilot Village	1
1.3 Preliminary Visits and Contacts	2
1.4 Collection of Information	3
2.0 LANGMA	3
2.1 Area Characteristics	3
2.2 Social Amenities	4
2.2.1 Housing	4
2.2.2 Population	4
2.2.3 Education	4
2.2.4 Health and Sanitation	5
2.2.5 Occupation	6
3.0 LANGMA FISHING INDUSTRY	6
3.1 Fish Sales	6
3.2 Fish Handling	7
3.3 Smoking Ovens	7
3.4 Fire Wood	8
3.5 Fish Salting and Drying	8
4.0 PACKAGING, STORAGE AND MARKETING	8
4.1 Storage and Packaging	8
4.2 Marketing	9
4.3 Income	9
4.4 Social Activities	10
5.0 DISCUSSION AND CONCLUSION	11
5.1 Discussion	11
5.1.1 Life Style	11
5.1.2 Occupation	12
5.1.3 Fishing Industry	12
5.1.4 Income and Expenditure	13
5.2 Conclusion	14
6.0 RECOMMENDATION	14
APPENDIX	15

S U M M A R Y

Baseline socio-economic study was conducted on Lagma, a pilot fishing village chosen for the 1992 Artisanal Fish Processing Training Course.

The study examined the occupation, lifestyle of the people of Lagma and the fishing industry in the village.

The standard of living was low, sanitary conditions and housing were poor, with no electricity.

The people of Lagma were hardworking but mainly illiterates. There was no school in the village.

The main occupation was fishing and fish processing. Farming was taken up during the lean fishing season. Collection of stones and shells from the sea bed was limited to only women while the construction of beach huts was the preoccupation of the men.

The round mud ovens were the common fish smoking ovens found in the village. The women made profit from their fish processing activities and the money realised was used mainly to look after the home and the children.

There is a womens' group in the village which is very dynamic. The group was also encouraged to work hard and to join the credit union in order to get loans for their projects.

BASELINE SOCIO ECONOMIC STUDIES ON LAGNA
1992 PILOT FISHING VILLAGE

1.0 BACKGROUND INFORMATION

Lagna is the pilot fishing village chosen for the 1992 Ghana/Netherlands Artisanal Fish Processing Training Course. The training course is of six weeks duration and has been conducted year for the past 3 years.

ACKNOWLEDGEMENT

The project was funded by the Dutch and Ghana Governments.

We will acknowledge with gratitude the help given to us by Mrs. Nerquaye-Tetteh, the Project Manager. We thank her for her encouragement. Our thanks also go to Dr. W. Plahar for editing the report.

We wish to thank again Mrs. Faustina Kersi for typing this report.

The study is conducted in the pilot village before the commencement of the course. This is done in order to procure for the participants information about the pilot village, to help in the planning of the field studies and for future evaluation of the project.

1.1 Introduction

The Ghana-Netherlands Artisanal Fish Processing Project seeks to improve the living standards of the fishing communities through improved fish processing technologies. A very successful and successful fish processing technology has been developed in the country because of its efficiency of operation and it greatly improved the income of women in the fish processing business. The project also seeks to assess, evaluate and promote the use of this particular technology towards helping a large number of women fish processors.

The specific objectives of the baseline studies are outlined below:

- (a) To obtain background information on the pilot village

BASELINE SOCIO ECONOMIC STUDIES ON LAGMA
1992 PILOT FISHING VILLAGE

1.0 BACKGROUND INFORMATION

Lagma is the pilot fishing village chosen for the 1992 Ghana/Netherlands Artisanal Fish Processing Training Course. The training course is of six weeks duration and has been conducted in Ghana every year for the past 5 years.

As part of the training programme, participants are introduced to the pilot village, encouraged to interact with the people, observe and interview them on their way of life. Practicals on chorkor oven construction, smoking and salting of fish are carried out in the village. A baseline study is conducted in the pilot village before the commencement of the course. This is done in order to procure for the participants information about the pilot village, to help in the planning of the field studies and for future evaluation of the project.

1.1 Introduction

The Ghana Netherlands Artisanal fish processing project seeks to improve the living conditions of fishing communities through improved income generating technologies. A very successful and indigenous system - the chorkor oven - is being disseminated all over the country because of its efficiency of operation. It has greatly improved the incomes of women in the fish smoking business. The project also seeks to assess, upgrade and promote at the same time this particular oven geared towards helping a large number of women fish smokers.

The specific objectives of the baseline studies are outlined below:

(a) To obtain background information on the pilot village

chosen for the training course.

(b) To gather information on existing indigenous traditional fish processing methods. Interviews with the women and by observation.

(c) To study the role of women in fish processing.

(d) To assess their incomes from fish smoking activities.

1.2 Choice of Pilot Village

In 1987, some women from Lagma got together and sent representatives to the National Council on Women and Development (NCWD) in Accra. Their mission was to have the Chorkor oven introduced to the women fish smokers in their village. At that time, there was no source of funding for such projects and so they could not be helped. This year, the village was considered and chosen as the pilot village for the training programme.

1.3 Preliminary Visits and Contacts

Four visits were made to the village as familiarization visits. During these visits, meetings were held with the women fish smokers in the village who belong to a women's group. At these meetings, the women were briefed on the aims of the project and what the project is supposed to achieve.

Prominent people contacted to inform them about the project included the chief fisherman, the chief of the village and his elders. At the end of these visits, about 30 names of large scale fish smokers were obtained; they had expressed their willingness to adopt the chorkor oven and to allow participants to construct the ovens on their land for them. Their only contribution was to be the clay.

1.4 **Collection of Information**
Unlike all previous occasions when data was collected by means of a questionnaire on households, the bulk of the information was collected through direct interviews with the women and by observation.

It is a monogamous society with the average number of children per family 2.0

2.0 L A G M A

Lagma is a small fishing village located 22km west of Accra, off the main Accra Cape Coast road. The village is in the Central Region of Ghana and is named after a hill situated at the north of the village. Lagma is also 2 km away from Kokrobite, another fishing village and beach resort.

High mortality rate was reported for children below five years of age.

2.1 Area Characteristics

The area surrounding Lagma is hilly. The major rainy season is between May and July and the minor rains between October and November. The hot and dry season stretches from December to March. The vegetation is Savannah grassland and coastal thickets.

2.2 Social Amenities

2.2.1 Housing

The houses are built of clay with thatch roofs. There are a handful of houses built of sandcrete blocks and mortar and roofed with corrugated iron or asbestos sheets. The beach is dotted with beach huts belonging to holiday makers who use them at the weekends. There is no electricity at the village.

2.2.2 Population

The population of Lagma is between 2,500 and 3,000 people. The inhabitants of the village are fishermen settlers who have migrated from Ada and Ningo, in the Great Accra

Region. They speak the Ada and Ga languages and profess the Christian faith. The present chief of the village is called Ma Ochi. He is supported by his elders in the administration of the village. The land was given to them by the Chiefs of Nyanyanyo and Kokrobite.

It is a monogamous society with the average number of children per family being 6. Although fish is the main produce of the village, the children looked very malnourished thereby creating the impression that either sufficient fish is not given to the children or the diet is totally unbalanced. Most of the men appeared irresponsible having left the care of the children to the women. High mortality rate was reported in children below five years of age.

2.2.3 Education

There is no school in Lagma - children of school going age walk to Tuba, another village 5 km away to attend school. The result is that not many children attend school because of the distance. There is a school at Kokrobite (2km away) but parents are reluctant to send their children there because of alleged harsh treatment meted out to the latter. Madam Ohui Otsche Margaret who is the Secretary of the women's group is the only literate woman in the village.

The construction of a school block is one of the priority projects of the village. They have paid levies, prepared blocks and purchased the inputs for the school building but they still do not have enough money and materials to begin the actual construction work.

2.2.4 Health and Sanitation

The village has no clinic nor health post; the nearest

clinic is at Botianor, 7 km. away. Serious cases are referred to Korle Bu teaching hospital, Accra. The village has 2 unlicensed herbalists and two traditional birth attendants. Parents and children periodically receive vaccinations from mobile health teams from Accra.

The village also has potable drinking water provided by the government with some contribution from the village. This service was provided ten years ago and has relieved them from walking to Kasoa, 5 km away to fetch water. They also have a well on which they fall when there is water shortage for one reason or the other.

Public latrine do not exist in the village; the people use the bushes and occasionally, in the dark, the beach.

2.2.5. Occupation

The men are all fishermen. The women process the fish mainly by smoking. Together, they farm during the main rainy season which coincide with the main lean fishing season. They grow tomatoes, onions, garden eggs, maize, cassava and pepper, mainly for food and, in case of any excess for sale.

The women collect and heap pebbles and shells from the sea belt. These are purchased by middlemen who sell to people in the construction industry. The cost of a truck load of pebbles or shells is around \$30,000.

The men construct beach huts and maintain them for the owners. Some are employed by Holiday makers, tourists and AAMA Hotel. Some women do petty trading, others are street food vendors.

The fishing season begins from July to December every year. The main bumper season is in August and the lean season stretches between January and February.

the clay for oven construction is obtained from the

3.1 Fish Sales In the construction of a medium sized round oven

When fish is landed by the fishermen, its price is negotiated between the women and the fishermen before bringing it out of the canoe. Big fish is sold per unit price while the small fish is sold by crate measure. The women pay cash for the fish they purchase or are given at most three days credit when there is a glut. Wives and relatives do not get any preferential treatment from the fishermen. The price for a crate of small fish ranges from ₦5,000-₦6,000 but is reduced to ₦2,000 during the bumper season. The species of fish landed are mainly spanish mackerel and herrings or sardines. Fish is also purchased from fishermen at Nyanyanyo and Kokrobite.

fibres are used during smoking the fish

3.2 Fish Handling

The fish is carried by the women from the beach to the processing sites, sometimes with the help of their children. The larger fish is cleaned and cut into smaller pieces, arranged on wire rocks, ready for smoking in the ovens. The small fish are just washed and arranged on the wire trays, dried a little and then smoked. There are no refridgeration facilities in the village.

4.0 PACKAGING, STORAGE AND MARKETING OF LAGMA FISH

3.3 Smoking Ovens

Two main types of ovens are identified at the village. They are the round and the rectangular mud ovens. The rectangular oven is an immitation of the Chorkor smoker being introduced. This has been wrongly copied. the stoke holes are very large and the height and width of the ovens are not standardised. Eighty round ovens and 20 rectangular ovens were counted in the village. The pieces

of fish are smoked in the round ovens while the small fish are anchovies are smoked in the rectangular ovens. This is because the smoking trays can be stacked on the rectangular oven and so a lot of fish can be smoked.

The clay for oven construction is obtained from the village. In the construction of a medium sized round oven, the quantity of clay used is purchased at ₦500. The construction cost ranges from ₦2,000 to ₦4,000. The ovens are not under the sheds but rather at the mercy of the weather. The life span of the oven is about 2 years.

3.4 Firewood

Wood for smoking is purchased from in and around the community. A small bundle of firewood made up of ten sticks is sold at ₦200.00. Three of such bundles are used to completely smoke dry fish in a large oven in 4 hours. Two to Five crates of fish can be smoked in the same oven over a period of 12 hours. Sugarcane peels and coconut fibres are used during smoking to give the fish an attractive colour and flavour.

3.5 Fish Salting and Drying

During the major fishing season from July to December anchovies are sometimes salted and sundried. These are stored up to three months in order to fetch a higher price during the lean season.

4.0 PACKAGING, STORAGE AND MARKETING OF PROCESSED FISH

4.1 Storage and Packaging

Smoked fish is not stored over long periods partly because of lack of working capital and also because it is not smoked dry. If however the fish vendors are compelled by circumstances eg. glut, to store the fish, it is kept in the round ovens and covered with thatch.

The fish is packed in baskets lined with brown paper or in enamel bowls and taken to the market to sell. Other types of fish are packed in crates. The pieces of large fish like Tuna are placed in aluminium bowls.

Cost of brown paper used for packaging depends on the size and quantity of fish being packed. During packing for transportation to the market, 2 baskets are placed one on top of the other to give support to the packed fish. The baskets used for packing fish are purchased in Accra. The life span of these baskets is about 1 year.

4.2 Marketing

Once the smoked fish is allowed to cool, it is ready for sale. No fish is sold in the village because those who came to purchase the fish on credit failed to pay for them later. There are two outlets for the sale of fish from the village. The fish is either taken to Kasua market, about 5km away or to the Tuesday market at Mamprobi, Accra. Vehicles from Botianor go to the village to convey the women and their fish to the above markets, after prior arrangements with the driver. The drivers charge three hundred cedis to transport a basket of fish to the markets. If small quantities of fish are to be sold, the women walk to Kasua with the fish load on their heads. The fish is sold by bargaining. The price of fish plummets either when demand for a particular fish is low or when it is getting dark and late and the women have to return to their village. The women pay market tolls as well as contribute medium sized fish to the market queen mothers at the Mamprobi market.

4.3 Income

Profits from the fish sales are low during the major peak periods and very high during the lean period. It is the wish of the women that the lean period should persist throughout the year because then they would work less but

earn high profits! **DISCUSSION AND CONCLUSION**

5.1 Profit of between ₵2,000 - ₵1000 is made on a medium sized basket of fish. **COMMUNITIES AND RIVER FISHING COMMUNITIES** in the Greater Accra Region of Ghana have so far been used. Although fishing is the major occupation in the village the fishermen and their families also get income from their farming activities. Part of the money accruing from the farm is given to the women to invest in the fish smoking business. **MEETING** has been held yearly for the past 5 years. In 1988

Other sources of capital are from friendly neighbours who lend money without interest to the women for their work. This has been very helpful to them. **DATA IS COMPOUND**

4.4 Social Activities

VILLAGES FOR 1991 COURSE WERE NEW CASHI There are no social groups at the two villages neither are there any recreational activities. **AGE** Even on festive occasions like the Asafotu festival of the Adas, they travel to Ada to participate in it. Self help projects are non-existent. There are no dance groups that will even entertain the people! In spite of all these deprivation, the women are hard working and pleasant.

5.1.1 Life Style

Most of the women look after their own children and feed the family as well. There is a big problem of teenage pregnancy in the village. The staple food of the village is kokonte (cassava meal) with either palm soup or Okro soup with fish. When fish is scarce domestic animals like ducks, chickens or goats are slaughtered for food. There is no fishing on Tuesdays and Sunday also fish cannot be fried on Fridays. Farming is also banned on Fridays.

THE WOMEN OF LEGA ARE HARDWORKING AND GOOD FISH SMOKERS. No extension officer or government agency has worked in the village before the studies were carried out. **CHILDREN DO NOT** attend school. All the women at Akaakro and New Cashi who took part in the study in 1991 were illiterate. The

5.0 DISCUSSION AND CONCLUSION

5.1 Discussion

Marine fishing communities and 2 river fishing communities in the Greater Accra Region of Ghana have so far been used as pilot areas for the introduction of the Chorkor Smoker.

These communities have also been used as study areas for the participants of the Artisanal Fish Processing Training Course which has been held yearly for the past 5 years. In 1988

Ahwiam and Lekpongunor were chosen as pilot villages for the training programme. In 1989, Ayetepa and Mangotsonya were the two pilot villages chosen. Tema compound and Nungua Faashi were the study areas for the 1990 course. The river fishing villages for 1991 course were New Galilea and Amanfro. One marine fishing village only was chosen for this year's (1992) course. This village also happens to be in the Central Region of Ghana. There was full cooperation from the women, the chief and elders and from all the people as a whole which was far healthier than the reception in some other villages.

5.1.3 Fishing Industry

5.1.1 Life Style

The standard of living is very low at Lagma. Housing is mainly of mud with thatch roof. Sanitary condition is poor with no places of convenience. There is no health post or clinic in the village. This situation was found to be common to all the other villages which have been the subject of study so far. Four out of nine communities studied have pipeborne water and 3 have electricity supply.

The women of Lagma are hardworking and good fish smokers, but they are all illiterates except for one woman. There is no school in the village and so most of the children do not attend school. All the women at Amanfro and New Galilea who took part in the study in 1991 were illiterates. The

trend is similar in the other communities studied as well. The birth rate is high with the average number of children per mother being six. Monogamy is surprisingly the norm at Lagma, while polygamous relationships are accepted and practiced in all the other villages. The children are not well fed; evidence of Kwashiokor exists.

5.1.2 Occupation

The people of Lagma are fishermen and fish processors. They also farm during the rainy season. This is because the farming season coincides with the lean fishing season, when they have a lot of time on their hands. In all the other villages studied, the same trend is observed in addition, there is petty trading. Nungua and Tema U-Compound are a bit different because they are not villages. They are fishing communities situated in suburbs of the city and so there is no available farmland on which to farm. However, the people of Lagma, have additional occupation which is the collection of pebbles and sea shell from the sea bed, for sale to the contractors and the building of beach huts for holiday makers.

The women of Lagma also reported that they are not

5.1.3 Fishing Industry

Traditional processing of fish in all the communities is the same. Apart from Tema U-Compound all other communities including Lagma used the round mud oven. Tema U-Compound used metal ovens. There were a few rectangular mud ovens but these were neither common nor widespread.

Conclusion

All these fishing villages and communities have now changed over to the Chorkor smoker.

The people are poor but very resourceful and pleasant.

The women of Lagma were of the opinion that the round ovens conserve more fuel and are good. The same opinion was expressed in all previous villages until they accepted the Chorkor Smoker and then changed their minds.

evenings.

The same women of Lagma also accepted that the few imitation chorkor ovens in the village also produced good quality fish in large quantities as well. Income from fish smoking.

Tema is the only community with refrigeration facilities so landed fish is always processed immediately in all the villages and sometimes fish is even smoked till late at night although lighting is a problem.

5.1.4 Income and Expenditure

The women at Legma disclosed their profit margin was between ₦1,000.00 and ₦2,000.00 per medium sized basket of smoked fish. In previous studies, the women were not ready to divulge that piece of information. They all agreed however that it is a good and profitable business.

The money obtained from fish smoking is spent mainly on children and the home. With the zeal and interest on the part of the women, it is hoped that the programme will succeed.

The women of Lagma also lamented the fact that they are not given fish to smoke on credit. The situation was the same in every fishing community or village. They all wished that their husbands or the fishermen would give them credit facilities.

5.2 Conclusion

The study has brought up the background information about Lagma village and the womens group in that village. The people are poor but very industrious and pleasant. Their needs are simple. They need financial assistance to help them in their work. Education and training to make them aware of good nutrition, health and sanitation. They need electricity to make life bearable especially in the evenings.

The introduction of the Chorkor smoker therefore is expected to reduce post harvest losses, to produce good quality fish and to increase their income from fish smoking.

1. Afiyoo Ofu - Leader

2. Maku Ochi - 6.0 RECOMMENDATIONS

3. Ohui Ochi - Secretary

1. It is recommended that talks on the importance of health, education and nutrition be given to the women.

5. Abenaa (at the 2nd village)

2. The women should be encouraged to continue in the womens group. This group should not only be a social group but should be used for literacy classes, training in crafts and needle work.

11. Awrayoo Waku

3. Help should be given to the village to enable her to build a school for the children so that the children would not walk long distances to attend school at Tuba.

15. Wecha Ochi

4. The women should be encouraged to form a Credit Union so that they will benefit from loans and other benefits from the Union.

19. Narnye Siwa

20. Ode Adana

21. Korke Adana

22. Booko Baaku

23. Larger Apeski

24. Gladys Amoo (Shanani)

25. Akuyoo Ochi

26. Maku Ovuada

27. Kuayo Bonso

28. Fofe Arneh

29. Koko Akrefi (Adjorob)

30. Mary Ochi

APPENDIX

LIST OF LAGMA WOMEN'S GROUP

1. Afiyoo Ofu - Leader
2. Maku Ochi - Assistant
3. Ohui Ochi - Secretary
4. Dede Lamptey (Isaacye)
5. Dodue Alorde
6. Abenaa (at the 2nd village)
7. Victoria Akli (Otonawo)
8. Comfort Korley
9. Korkor Akli
10. Comfort Adotey
11. Awurayoo Baaku
12. Korkor Ashon
13. Elizabeth Neequaye Amissah
14. Korkor Apenklo
15. Wecha Ochi
16. Maadome Lydia Ochi
17. Segbo Kpodo (Kofinye)
18. Margaret Wormeno
19. Nernye Siwu
20. Oode Adama
21. Korke Adama
22. Booko Baaku
23. Larger Apenklo
24. Gladys Amenu (Maanan)
25. Akuyoo Ochii
26. Maku Obuade
27. Kuayo Bonso
28. Fofu Armah
29. Koko Akrofi (Adjorko)
30. Mary Ochi