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REPORT ON CONSUMER SURVEY

TRAINING PROGRAMME FOR
WOMEN ENTREPRENEURS IN THE
FOOD PROCESSING INDUSTRY
(XA/GAM/92/(618)

SPONSORED BY
UNIDO/VIENNA

PREPARED BY
DR ALHAGY CHERNO JAGNE
JAGNE ASSOCIATES
SMALL BUSINESS & FINANCIAL
CONSULTANTS

AND

GAMBIA FOOD & NUTRITION ASSOCIATION
(GAFNA)

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ACRONYMS

GAFNA	-	*GAMBIA FOOD AND NUTRITION ASSOCIATION*
UNIDO	-	*UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION*
NEPC	-	*NUTRITION EDUCATION PILOT CAMPAIGN*

EXECUTIVE SUMMARY

In other to respond to the training needs of Women Entrepreneurs in the Food Processing Industry, UNIDO funded GAFNA to work with a private Consultant to jointly conduct a market survey of Women Entrepreneurs in the Food Processing Industry in November 1993. The objectives of this study were:-

* *Assessment of demand for processed food and determination of market opportunities.*

* *Availability of raw materials suited for small scale producers.*

An interview guide (questionnaire) was developed and 250 Women Entrepreneurs in the Food Processing Industry were selected and interviewed throughout the country.

The analyses and interpretation of the market survey findings are based on the output tables (see appendix 2). This is an attempt to provide [illegible] information in respect of [illegible] Industry.

The market survey [illegible] wide ranging [illegible] of [illegible] processed food [illegible] consumption of [illegible] food [illegible] foods. It further [illegible] which is cereal/nuts [illegible] and meat (small [illegible]. Furthermore, women are regarded [illegible] food production systems and are extensively involved in the processing and marketing stages. Processing and marketing of cereals and vegetable/fruits to a greater extent and livestock products to a lesser extent are known to be [illegible] constraints in the food production chain.

Among the major problems identified by respondents include lack of processing equipment, poor storage facilities unhealthy products and availability.

A number of areas were identified as important training needs and these include basic knowledge and understanding of the values and properties of food nutritional content. There is urgent need to increase processing of local staples beyond household levels, hence, small and medium scale processing techniques must be promoted and developed. Women Entrepreneurs must also be trained in business management, marketing and maintenance repairs.

1.0 BACKGROUND AND INFORMATION

The Gambia Food and Nutrition Association came in 1986 aimed at improving the nutritional status and dietary habits of all Nationals through the promotion and development of nutrition based activities.

In collaboration with UNIDO and as part of the Association's (GAFNA) pilot nutrition education campaign (NEPC), the association hired a consultant to conduct a study on the feasibility of marketing processed local foodstuffs to the Gambian public.

The Association's training report of 1993 as part of its plan for 1994 the conducting or formal training sessions for entrepreneurs in the food processing industry. The findings of this research project will be used principally to plan and organize a systematic training manual for this target group.

1.2 METHODOLOGY AND RESEARCH PROCESS

1.2:1 Using a random sampling process, a total of 200 individuals were interviewed based on a questionnaire developed by the Consultant. **(see appendix 1)**. The questionnaire is divided into six main sections:-

A. Personal Data
B. Consumption Profile
C. Purchasing Considerations
D. Vendor Information
E. Demand Survey
F. Product Features

An interview guide was developed and GAFNA identified some few field enumerators who were briefly trained to administer the pre-testing and final administration of the questionnaire.

The actual interviews were conducted from September to October 1993. The Interviews were generally successful since answers were provided to all questions within the allotted time span.

The questionnaire was administered in the following areas:-

South Bank - Basse, Brikamaba, Soma, Brikama, and Gunjur.

North Bank - Barra, Farafenni, Kuntaur, Serrekunda, Macca Farafenni, Kaur, Brufut, Ndungu Kebbeh and Tangi.

The composition of the sample size constitute a hetregenous grouping ranging from urban, semi urban and typical rural settings.

1.2:2 DATA ENTRY AND ANALYSIS

The entire data collected was hand-scored by the Consultant and totalled. Responses to questions on the questionnaire varied from respondent to respondent. Some respondents answered all questions fully while others felt some questions were not applicable to them.

The Development of the final questionnaire is based on the incorporation of ideas and suggestions from Peter Fellows the UNIDO advisor who gave it a consumer perspective while the initial questionnaire developed by the Consultant had a production trust rather than a consumption thrust.

The Research team comprised of Dr Alhagy Cherno Jagne, the Officer incharge of the research assignment at GAFNA. All field enumerators were provided by GAFNA and briefly trained by Dr A. C. Jagne.

2.0 FINDINGS

Analysis and interpretation of the market survey findings are based on the survey information output tables. This third-stage approach of the market survey is an attempt at providing systematic and consistent information in respect of the numerous perceptions and notions surrounding the food processing sector and industry. The informed interpretations thus made would provide reliable and accurate information for the crucial considerations of broad and specific topics for coverage and emphasis in the training manual.

2.1 *TYPES OF PROCESSED FOODS GENERALLY PURCHASED*

Responses to this question indicate two distinct patterns between cereal/nuts, meat and vegetables in one group and fruits and seasoning in the other. Cereal/nuts rank uppermost with 144 respondents out of a sample of 200 or 72 percent. Meats and vegetables follow with 135 and 104 respondents or 67 percent and 52 percent respectively. Processed meat is purchased by 22 respondents generally or about 11 percent. Processed seasoning rank bottommost purchased by only 21 respondents or 10 percent.

2.2 *FREQUENCY OF PURCHASE OF PROCESSED FOODS*

The market study portrays a wide ranging frequency of purchasing behaviors of processed foods. Baked/fried food class exhibits the highest frequencies on a daily basis - with an average number of 28 respondents or 7 percent of the sample purchasing [illegible] different baked/fried items - made up of 110 respondents of 55 percent purchasing bread alone and only 2 respondents buying shrimps alone. Weekly purchases of this same class record an average of 31 respondents or 15 percent with 46 respondents or 23 percent and 15 respondents or 7 percent purchasing macaroni and bread respectively. Fortnightly purchases of baked/fried foods are done by an average of 11 respondents with 28 and 2 respondents buying roasted meat and cake respectively.

Tri-weekly purchases of baked/fried foods are done on average by 2 respondents with 10 respondents purchasing roasted meat and 1 respondent purchasing bread, fish pie and macaroni in each case. Monthly purchases of baked/fried foods account for 8 respondents on average with 23 respondents purchasing roasted meat and 3 respondent purchasing liver and macaroni respectively. Occasional purchases of baked/fried foods attract 11 respondents on average with 21 and 5 respondents buying macaroni and bread respectively.

In the class of processed dried foods, daily purchase is the norm for 31 respondents or 15 percent of the sample on average with 60 respondents or 30 percent going for dried fish and only 2 respondents going for dry meats. Cereals flour and okra each accounts for 46 respondents or 23 percent. Weekly purchases of dry foods is carried out by 50 respondents or 25 percent on average with 79 and 18 respondents purchasing dried foods fortnightly with 12 respondents going for flour, cereal and okra in each case and just one respondent purchasing dry meats. Tri-weekly purchases of dried food are done by just 4 and 1 respondents for dry meats and okra respectively. An average of 5 respondents carry out monthly purchases of dried foods with 15 respondents going for powdered milk and 2 respondents each for dry meat and dried fish respectively. Occasional purchases of dried foods is done by 28, 6 and 7 respondents for powdered milk, flour and cereal flour respectively.

Purchasing behavior in the class of processed oils exhibits an average of 17 respondents or 8 percent of the sample purchasing the 5 brands of oil on a daily basis with 40 respondents preferring vegetable oil against 3 respondents preferring palm kernel oil. On average 60 respondents or 30 percent of the sample purchase their oil requirements weekly with 118 respondents or 59 percent going for palm oil and 16 respondents for palm kernel oil. Purchasing of oil on fortrightly basis is done by 6 respondents each for groundnut and palm oils. Monthly purchases of oil are the norm for 5, 2 and 1 respondents for groundnut, palm kernel and vegetable oil's respectively. Groundnut/palm, palm kernel and vegetable oils are purchased by 3, 2 and 8 respondents respectively on occasional basis.

Purchasers of fermented products on daily basis average 61 respondents or 32 percent. The whole sample, 200 respondents purchase sour milk daily against 5 respondents purchasing cheese daily. Vinegar is also purchased by 13 respondents daily. Weekly purchasers of fermented products average 3 respondents, ranging from 76 to 10 respondents for vinegar and cheese respectively.

Fortnightly purchasing patterns counts about 10 respondents on average buying fermented dairy products, with a range of 13 and 6 respondents in respect of yoghurt and cheese respectively.

Vinegar alone attracts 15 purchasers or 7 percent of the sample fortnightly. Very few respondents affirm to tri-weekly purchases with 1 respondent each buying sour milk and yoghurt, and 5 respondents buying vinegar. On the case of monthly purchases, 4 respondents each buys cheese and vinegar and only 1 respondent buys sour milk. Occasional purchases of fermented products is habitual for 12 respondents each buying sour milk and yoghurt, and 11 and 2 respondents buying vinegar and cheese respectively.

Purchasing behavior in the concentrated foods class exhibits 14 respondents or 7 percent of the sample buying daily, ranging from 61 respondents or 32 percent of the sample demanding peanut butter to 5 respondents demanding ketchup. Weekly purchases of concentrated foods accounts for 28 respondents on average, ranging from 85 respondents or 42 percent of the sample for peanut butter to 8 respondents for ketchup.

An average 13 respondents purchase concentrated foods fortnightly, made up of 46 respondents for peanut butter and 1 respondent each for tomato paste. Tri-weekly purchases of ketchup and tomato paste is done by 1 respondent each, peanut butter by 3 respondents and jam by 2 respondents. Monthly purchases of tomato paste and jam is the behavior for 4 respondents in each case, while 5 and 2 respondents purchase peanut butter and ketchup respectively. Peanut butter and ketchup each attracts 9 respondents occasionally, 10 respondents purchase jam and 5 tomato paste.

Miscellaneous processed foods purchased daily are sorrel "wonjo" by 8 respondents, "akara" and "dang" by 2 respondents each and locust beans by only 1 respondent. Weekly purchases of miscellaneous processed foods is by 9 respondents, ranging from 20 respondents for "wonjo" 2 respondents for any of ice cream, snail, meat balls and locust beans. "wonjo", "akara" and "dang" are purchased weekly by 2, 3 and 1 respondents respectively. Only "dang" is purchased tri-weekly, monthly and occasionally by 1 respondent each and 12 respondents occasionally.

2.3 TYPES OF PROCESSED FOODS PREFERRED

The responses are vividly and categorically divided and very highly skewed in favour of locally processed foods. 182 respondents or 91 percent as against 61 respondents or 3 percent revealed preference for locally processed foods over and above imported foods.

2.4 REASONS FOR PREFERENCE OF LOCALLY PROCESSED FOODS

Responses to this question show no regular pattern or consistency over the range of indicated reasons. *Availability and affordability* together is ranked topmost by 69 respondents or 34 percent. *Tradition* is the next highest accounted for by 35 respondents or 17 percent. *Nutritive values* and *cheapness* rank 3rd and 4th positions by 25 and 19 respondents or 12 percent and 9 percent respectively.

Freshness and hygiene ranked 5th position by 16 and 12 respondents or 8 percent and 6 percent respectively. *Taste* and *"Preservation for longer life"* at 7th and 8th positions are advanced by 10 and 5 respondents or 5 percent and 2 percent respectively.

2.5 FORMS OF PRESERVED FOODS CONSUMED MOST

Baked, boiled and fried foods are the most consumed as indicated by 125 respondents or 62 percent of the sample interviewed. Canned foods, and salted and dried food are behind the first category stated by 84 and 60 respondents or 42 percent and 30 percent respectively of the overall sample.

Fermented foods are consumed by a less than average of 43 respondents or 21 percent. An unusual negligible representative of 1 respondent is in the habit of consuming roasted foods.

I. PURCHASING CONSIDERATIONS

i. *VALUE OF PROCESSED FOOD CONSUMED PER WEEK*

Responses to this question exhibit an inverse relationship between expenditure and number of consumer with the only exception for expenditure from D51 to D100 recording 14 consumers or 7 percent. The largest number of consumers of 70 or 35 percent reckoned they consumed less that D50 worth of processed foods weekly. About 31 percent or 63 respondents consumed between D100 and D149 of processed foods weekly. Weekly consumption of approximately D150 worth of processed foods are consumed by 35 respondents or 17 percent of the sample.

Amounts of D200 or more and D300 or more worth of processed foods per week are consumed by 24 and 16 respondents or 12 percent and 8 percent respectively.

ii. *MOST IMPORTANT PRODUCT FACTOR INFLUENCING BUYING DECISION*

The survey results confirmed hygiene as the most single important factor influencing the buying decision of 52 respondents or 26 percent of the sample. The next single factor down the ladder is quality, suggested by 51 respondents or 25 percent. Palatability and cost factors singly influence 47 and 26 respondents or 28 percent and 13 percent respectively of the sample. Only 6 respondents or 3 percent consider packaging as most important while only 2 and 1 respondent pay most attention to availability and advertising respectively.

iii. *PERCENT OF MONTHLY INCOME SPENT ON PROCESSED FOODS*

In general responses to proportion of monthly income spent on processed foods exhibit no consistent relationship. The highest monthly income proportions of 5 and 10 percent are spent by 12 and 19 respondents or 6 and 9 percent of the sample respectively. Between these two extremes, the average monthly income proportion of 50 percent is spent by 64 respondents, the largest number, or 32 percent of the sample.

The monthly income proportion of 60 percent is spent by 30 respondents or 15 percent of the sample. Below average monthly income proportions of 40, 30 and 20 percents are spent by 14, 20 and 15 respondents or 7 percent, 10 and 16 percent respectively.

iv. *FOOD PURCHASED FOR ENTIRE HOUSEHOLD*

A very large number, 148 respondents or 74 percent of sample purchased processed foods for entire household against a modest number of 53 respondents or 26 percent that do not.

v. *TIME INTERVAL FOR PURCHASING ALL FOOD REQUIREMENT*

Survey findings suggest that most consumers, 148 respondents or 74 percent of the sample purchased all their food requirements daily. Weekly purchases of all food requirements is practiced by 54 respondents or 27 percent. A very small number, 8 respondents or 4 percent purchased all their food requirements fortnightly while a negligible number of 1 respondent purchased all their food requirements occasionally.

A significant number of 24 respondents or 12 percent of the sample practise monthly purchases of all food requirements.

II. VENDOR INFORMATION

i. *SOURCES OF PROCESSED FOODS PURCHASED*

Of all 6 principal sources where processed food are purchased from, the survey results conclusively indicate that 164 respondents or 82 percent of the sample use the central market. Significant number of customers, 55 respondents or 27 percent prefer purchasing from retailers; and a small 5 percent or 11 respondents are supermarket goers.

Local eating place and restaurants are the favorite sources for 23 and 8 respondents or 11 percent and 4 percent of the sample respectively. The lumoo is the source for a minute 1 percent or only 2 respondents.

ii. CHOICE OF VENDORS

Responses to choice of vendors for purchase of processed foods are fairly evenly distributed. Top on the list is the quality of hygiene suggested by 78 respondents or 39 percent of the sample. Range of choice products follows closely with 51 respondents or 25 percent.

Proximity and availability of goods qualities of vendors influence 15 and 43 respondents or 22 and 21 percent respectively. Service is the least considered vender quality influencing just 26 respondents or 13 percent of the sample.

iii. STRONG LOYALLY TO ANY SELLER

The survey results indicate relationship between buyers and sellers on the basis of strong and weak loyalty to sellers. Strong loyalty is indicated by 136 respondents or 68 percent of the sample, while 67 respondents or 33 percent have no strong loyalty to any seller.

iv. PURCHASES FROM VILLAGE AND TOWN STORES

According to the survey results, most purchases of food related goods are from village and town stores. This is affirmed by 128 respondents or 64 percent of the sample. On the other hand, 47 respondents or 23 percent purchased from other sources.

III. DEMAND SURVEY

i. PERIODS OF AVAILABILITY OF PROCESSED FOODS PURCHASED

The survey results indicate that processed foods are generally available all year round. This is confirmed by 143 respondents or 71 percent of the sample interviewed. With regards to dry season availability 29 respondents or 19 percent are able to purchase processed foods. A lesser number of 17 respondents or 8 percent are able to purchase processed foods when they are available.

A fair number of 26 respondents or 13 percent purchase processed foods irrespective of seasonality but not throughout the year. A tiny proportion of 3 respondents indicates they purchase processed foods at any other periods different from those already specified.

ii. AVAILABLE QUANTITY OF PROCESSED FOODS PURCHASED YEAR ROUND

Responses to available quantity of processed foods purchased year round range from 69 respondents or 34 percent of the sample being able to satisfy enough of their food demand needs to 15 respondents or merely 7 percent just slightly able to satisfy their demand year round.

In between these extremes, 64 respondents or 32 percent are fairly able to satisfy their food demand needs round the year. 25 respondents or 12 percent of the sample are able to purchase all their demand needs and more compared to 28 respondents or 14 percent who are always unable to purchase to their satisfaction their food demand needs year round.

iii. CONSIDERATION OF BUYING AVAILABLE PRESERVED FOODS OUT OF SEASON

The indicative results of the survey on consideration of buying out of season preserved foods is an affirmative yes for 116 respondents or 58 percent of the sample. However, 81 respondents or 41 percent would not consider buying preserved foods even when made available out of season periods.

iv. TYPES OF NEW PRODUCTS BOUGHT IN THE LAST YEAR

Market responses to demand and purchase of new products the year before indicate that 15 respondents or 7 percent of the sample bought new juices, while only 2 respondents bought new vegetables products.

New fruit products on the other hand were bought by 7 respondents or 3 percent of the sample. New nuts/cereals and cooking oil products were bought by only 3 respondents in both cases.

IV. PRODUCT FEATURES

i. *QUALITIES OF LOCALLY PROCESSED FOODS*

In general, respondents of the market survey consider the degree of quality of locally processed foods as being very good, recording 74 respondents or 37 percent of the sample. At the other extreme, less than a handful, 3 respondents consider locally processed foods to be of poor quality.

Locally processed foods of good quality was accounted for by 58 respondents or 29 percent of the sample, while 26 respondents or 13 percent consider locally processed foods being of less than average quality. A larger proportion, 74 respondents or 37 percent of the sample consider locally processed foods to be generally of average quality.

ii. *LIKEABLE CHARACTERISTICS OF LOCALLY PROCESSED FOODS*

Among the likeable characteristics of locally processed foods that the market survey listed, preservation is the most popular for 60 respondents or 30 percent of the sample. Packaging follows preservation for 50 respondents or 25 percent. Artificial coloring is the most likeable for only 17 respondents or 8 percent.

At the bottom of the rank are cost and flavoring characteristics of locally processed foods considered as most likeable by 9 and 7 respondents or 4 percent and 3 percent respectively.

iii. *OPINION OF CHARACTERISTICS OF LOCALLY PROCESSED FOODS*

On the whole respondents hold diverging opinions of the characteristics of locally processed foods to be good against 20 respondents or 10 percent perceiving it to be not good (bad). Another 53 respondents or 26 percent also consider packaging of processed foods to be either fair or reasonable. Cost characteristic is considered by 26 respondents or 13 percent to be good and a further 26 respondents or 13 percent considered cost to be either fair or reasonable. Exactly double, 20 respondents or 10 percent consider locally processed foods to be expensive against 10 respondents or 5 percent who consider them to be cheap.

The third characteristic, artificial coloring of locally processed foods is opined by 26 respondents or 13 percent to be good and 14 respondents or 7 percent proclaiming it not good. On flavoring of locally processed foods 38 against 6 respondents or 19 percent against 3 percent opined it to be good and not good respectively. The fifth, but not least characteristic, preservation of locally processed foods, is considered to be good by 23 respondents or 11 percent against 17 respondents or 8 percent considering it not good. Just 14 respondents or 7 percent consider preservation of locally processed foods to be of fair quality.

iv. PROBLEMS ENCOUNTERED WITH LOCALLY PROCESSED FOODS

Respondents of the market survey identified an open ended range of problems they encountered with locally processed foods. These are categorized and grouped under 4 main headings (on the strength of direct correlation) as follow:-

i. Lack of processing equipment (facilities):

a. Preparation
b. Preservation/short shelf-life quick expiration)
c. Labelling

ii. Poor storage facilities

a. Easily perishable
b. Uncovered foods
c. Poor taste
d. Staleness

iii. Unhealthy

a. Dirts
b. Insects/flies
c. Worms
d. Rottenness

iv. Availability

v. *SUITABILITY OF LOCALLY PROCESSED FOODS*

The survey results indicate that for 92 respondents or 46 percent of the sample, locally processed foods are suitably good to meet their needs. Against this yardstick, 78 respondents or 39 percent consider locally processed foods badly suited to their needs. Suitability in meeting their needs is rated as better and best by 27 and 12 respondents or 13 percent and 6 percent respectively. The rating of worst suitable is suggested by only 5 respondents to meet their locally processed foods needs.

vi. *FAVORABLE AND POSITIVE ATTRIBUTES OF LOCALLY PROCESSED FOODS*

In all, responses to the five main favorable and positive attributes of locally, processed foods are fairly evenly distributed. 38 respondents or 19 percent of the sample described locally processed foods to be healthy. They are considered being able to compete by 38 respondents also or 19 percent as well made and by 32 respondents or 16 percent as being able to compete.

The nutritious and storability attributes of locally processed food are noted by 24 and 17 respondents or 12 percent and 8 percent respectively.

3.0 DISCUSSION AND RECOMMENDATIONS

Discussion of the findings of the market survey will consider the validity, conclusiveness, relevance and implications of the above interpretations for training of women - entrepreneurs in the food processing sector. In the process, noteworthy and salient issues raised will be highlighted in formulating logical and programmatic recommendations.

3.1 Consumption of processed foods shows a conclusive prevalence of cereal/nuts, meats and vegetables which can be regarded as basic food staples/necessities over fruits and seasoning or exotic foods. It further manifests the dietary pattern of Gambians which is cereals/nuts (rice, coarse grains and groundnut) and meat (small ruminants and poultry), based. Furthermore, women are regarded to predominate the food production systems and are extensively and intensively occupied up to the processing and marketing stages.

However, processing and marketing of cereals and vegetables/fruits to a greater extent and livestock products to a lesser extent are known to be almost unbreakable constraints in the food production chain. This results in considerable post-harvest losses in production, time and energy and hence in the quality of life and welfare of Gambian women in particular and the nutritional status of the population at large. Evidence abounds that increase food production and income are more cost-effective and efficient through interventions in improved post-harvest technologies (significantly processing) than increased investment in expanding land acreage.

RECOMMENDATION

i. There is a strong need for intensive training for women in the food processing sector all over the country. Priority and emphasis should be given to cereals/nuts, vegetables and meats.

ii. Training should underscore choice of technologies, considering criteria of: efficiency (cost, time and wastage), social objectives (increased women employment) an adaptability (simplicity and locally manufacturable).

3.2 Purchasing and hence consumption frequencies of processed foods show systematic patterns and behaviors on periodic basis. In general, there is a higher tendency for weekly purchases over daily purchases for all categories of processed foods except for bread, cakes and sour milk. Fortnightly purchases might be significant mostly for employees on fortnightly wages. Monthly purchases, though significant are still far below daily and weekly purchases. Occasional purchases of processed foods is only significant for the class of baked/fried foods.

This can be attributed to the occurrence of events such as ceremonies, festivals anniversaries and parties on occasional bases in which consumption and hence purchases of baked/fried foods increase.

Purchases of roasted meat is fairly constant over all the periods.

Another consideration for higher daily and weekly purchases and consumption of processed foods can be attributed to their inherent nature and properties such as perishability, storability and unit prices.

RECOMMENDATION

iii. Training in food processing should pay particular attention to the volume and cost of processing.

iv. Improved processing techniques should aim at extending the shelf-life and storability of most commodities purchased in weekly intervals as opposed to bread, cakes and sour milk purchased on daily basis.

3.3 Preference for locally processed foods is three times stronger than for imported foods. This should not be surprising, since the base or intermediate products or raw materials are the same for both locally processed and imported foods. The two are highly substitutable except for the stage and quality of processing.

RECOMMENDATION

v. There is urgent need to widen the range and improve the quality of locally processed foods in the light of currently narrow range and basic processing techniques of locally produced foods.

vi. Diversification of food production must be accompanied and supported by extensive training of new techniques for processing new products such as fruits and vegetable juices/purees, livestock products (dairies and meat) and fish. The criterion of adequate value added must be emphasized.

3.4 Baking, boiling and frying are the most usual forms of processing. Canning, salting and drying are next in order. These forms of processing are compatible with the type of foods, such as cereals/nuts cakes, vegetables and meats.

These processed foods also provide the greatest proportion of the energy and caloric components of nutritional requirements of carbohydrate, proteins and vitamins. Canned processed foods are widely consumed, which may indicate their strong preservation and storability qualities. Sardines, Luncheon meat, corned beef, tomato paste, fruits & vegetables juices and salads, chutney/jams etc. are some of the common canned foods widely consumed in The Gambia. Considering that the base products -- fish and livestock products -- are available in abundant quantities, it should not be difficult to utilize them as close substitutes, if their stages and qualities of processing can be improved. The slogan "... consume what you produce" cannot find a better context.

RECOMMENDATION

vii. Training in food processing must include basic knowledge and understanding of the values and properties of food nutritional contents.

viii Processing under local conditions involving baking, boiling and frying must be properly understood, using guidelines emphasizing handling, hygiene, preservation, storability and timing in order to improve processed food quality and also ensure maximum food nutritional value.

3.5 Purchasing and consumption of food are generally considered to be functionally related to income. Purchasing behavior indicates that about 84 percent of the sample are in the lower and middle income classes covering weekly income of up to D149. Consumers in these income bands are more inclined towards consumption of basic staples (rice, coarse grains, dry and smoked fish, small quantities of meat, sour milk and oils).

Considering that majority of the population resides in the rural areas and mostly fall within those lower income classes, it can be concluded that they constitute the majority consumers of these foods staples. Consumers in the upper income classes constitute the minority who are mostly urban residents inclined towards the consumption of imported sophisticated foods. Given the phenomenon of rising urbanization in The Gambia and its influence on life-styles and diets, consumption habits regarding locally processed foods have significant connotations.

RECOMMENDATION

ix. There is urgent need to increase processing of local staples beyond household levels, hence small and medium scale processing techniques must be promoted and developed.

x. Small and medium scale processing entrepreneurs must also be provided with back-up training in business management, marketing and maintenance repairs (where it may prove difficult to develop a cadre of artisanal maintenance technicians).

3.6 Food consumption is extremely important in our lives and is generally accorded the highest priority. The market study indicates that several factors more important than cost, influence purchasing and consumption decisions. Hygiene is rationally the most important, followed by quality and then palatability. Nevertheless, all the identified factors together, to the least influential-advertisement-- are important for decision making.

RECOMMENDATION

xi. Training in food processing must emphasize hygiene, presentation, packaging (labelling) and informative advertisement (including price, market location etc).

3.7 Food production, processing and marketing are all significant factors in the production process. Several studies (FAO/UNDP 1991, Ellis et all 1993) have indicated processing and marketing to be the most significant bottlenecks. The market study confirms that most people purchased processed foods from central markets followed by retailers.

RECOMMENDATION

xii. Training must be directed at women entrepreneurs of main markets an renown retailers. Training on improved services and approach is also important for lasting mutual relationship between sellers and buyers.

4.0 APPENDICES

4.1 APPENDIX 1

CONSUMER QUESTIONNAIRE OF PROCESSED FOODS IN THE GAMBIA

Date of Interview	*Interviewers Name Or Initial*
....	....

A. IDENTIFICATION PARTICULARS

1.1 Name of Respondent ....
1.2 Occupation
1.3 Gender M/F
1.4 Residential Address ....

B. CONSUMPTION PROFILE

2.1 WHAT TYPES OF PROCESSED FOODS DO YOU PURCHASE GENERALLY?

a. MEATS
b. FRUITS
c. VEGETABLES
d. CEREALS/NUTS
e. SEASONING

2.2 HOW FREQUENTLY DO YOU PURCHASE ANY OF THESE FOODS?

FOOD ITEM	DAILY	WEEKLY	FORT-NIGHTLY	TRI-WEEKLY	MONTHLY	OCCASIONALLY
1. Dried foods						
- Powdered Milk						
- Flour						
- Cereal Flour						
- Okra						
- Dry Meats						
- Dried Fish						
2. Baked/Fried Bread						
- Cake						
- Pancake						
- Meat Pie						
- Fish Pie						
- Biscuits						
- Macaroni						
- Liver						
- Shrimps						
- Roasted Meat (dibi)						
3. Concentrated Foods						
- Tomato paste						
- Jam						
- Ketchup						
- Peanut Butter						
4. Oils						
- Groundnuts						
- Sesame						
- Palm Oil						
- Palm Kernel						
- Vegetable Oil						
5. Fermented Products						
- Sour Milk						
- Yoghurt						
- Cheese						
- Vinegar						
6. Misc.						
- Ginger						
- "Wonjo"						
- "Agara"						
- "Dang"						
- Ice Cream						
- Snail						
- Meat Balls						
- Locust beans						
- Smoked Fish						

2.3 WHICH TYPES OF PROCESSED FOODS DO YOU PREFER?

a. LOCALLY PROCESSED
b. IMPORTED

2.4 WHY DO YOU PREFER LOCALLY PROCESSED FOODS TO IMPORTED ONES OR VICE VERSE?

2.5 WHAT FORMS OF PRESERVED FOOD DO YOU CONSUME MOST?

a. CANNED
b. SALTED AND DRIED
c. BAKED/BOILED & FRIED
d. FERMENTED

C. PURCHASING CONSIDERATIONS

3.1 HOW MUCH PROCESSED FOOD DO YOU CONSUME PER WEEK? ESTIMATE ROUGHLY.

1. D300 OR MORE WEEKLY
2. D200 OR MORE WEEKLY
3. D150 APPROXIMATELY
4. D100 BUT NOT D150
5. LESS THAN D50 TO NONE

3.2 WHAT IS THE MOST IMPORTANT ELEMENT OF A PRODUCT THAT AFFECT YOUR BUYING DECISION? ANSWER ONLY ONE

a. COST
b. PACKAGING
c. QUALITY
d. ADVERTISEMENT
e. HYGIENE
f. PALATABILITY (taste and freshness)

3.3 ESTIMATE ROUGHLY WHAT PERCENTAGE OF YOUR MONTHLY INCOME YOU SPEND ON PROCESSED FOODS ....

3.4 DO YOU PURCHASE FOOD FOR AN ENTIRE HOUSEHOLD?

3.5 DO YOU PURCHASE ALL YOUR FOOD REQUIREMENTS?

a. DAILY
b. WEEKLY
c. FORTNIGHTLY
d. TRI-WEEKLY
e. MONTHLY

D. VENDOR INFORMATION

4.1 WHERE DO YOU PURCHASE YOUR PROCESSED FOODS?

a. RESTAURANT
b. SUPERMARKET
c. LOCALLY EATING PLACES (CANTEENS)
d. CENTRAL MARKET
e. RETAILERS (INCLUDING STREET PEDLARS)

4.2 WHY DO YOU CHOOSE CERTAIN VENDORS AS AGAINST OTHERS

1. SERVICE
2. PROXIMITY
3. RANGE OF CHOICE (VARIETY)
4. AVAILABILITY OF GOODS
5. HYGIENE

4.3 ARE YOU UNFLINCH GLY VERY LOYAL TO ANY SELLER? YES/NO

4.4 DO YOU BUY GOODS FROM VILLAGE AND SMALL TOWN STORES? YES/NO

4.5 IF NO, WHY NOT? ....

E. DEMAND SURVEY

5.1 WHAT TIMES OF THE YEAR ARE THE PROCESSED FOODS YOU PURCHASE AVAILABLE?

a. ALL YEAR ROUND
b. DURING THE DRY SEASON
c. DURING THE WET SEASON
d. NOT SEASONAL AND NOT YEAR ROUND
e. OTHERS (PLEASE SPECIFY ....)

5.2 HOW MUCH OF THE FOODS YOU PURCHASE IS AVAILABLE THROUGHOUT THE YEAR?

a. MORE THAN ENOUGH
b. ENOUGH
c. FAIRLY ENOUGH
d. SLIGHTLY ADEQUATE
e. NOT ENOUGH

5.3 WOULD YOU CONSIDER BUYING FOODS OUT OF SEASON WHEN PRESERVED AND MADE AVAILABLE? YES/NO

5.4 WOULD YOU CONSIDER BUYING OTHER LOCALLY PROCESSED FOODS OTHER THAN THOSE ALREADY KNOWN TO YOU? YES/NO

5.5 HOW MANY NEW FOOD PRODUCTS HAVE YOU BOUGHT IN THE LAST YEAR? ....

IN WHAT GROUP DO THEY FALL?

FRUITS ....
VEGETABLES ....
NUTS/CEREALS ....
COOKING OILS ....
MEATS ....
JUICES ....

F. PRODUCT FEATURES

6.1 DO YOU CONSIDER LOCALLY PROCESSED FOODS TO BE GENERALLY OF:-

a. VERY GOOD QUALITY
b. GOOD QUALITY
c. AVERAGE QUALITY
d. BELOW AVERAGE QUALITY
e. POOR QUALITY

6.2 WHAT IS YOUR OPINION ABOUT LOCALY PROCESED FOODS?

a. PACKAGING
b. COST
c. ARTIFICIAL COLOURS
d. FLAVOURING
e. PRESERVATION
f. ANY OTHER (SPECIFY)

6.3 WHAT ARE THE MAJOR PROBLEMS YOU ENCOUNTER WITH LOCALLY PROCESSED FOODS? LIST

1.	6. ....
2.	7. ....
3.	8. ....
4.	9. ....
5.	10. ....

6.4 ON A SCALE OF 1 - 5 (1 IS BEST, 5 IS WORST) ARE LOCALLY PROCESSED FOODS SUITABLE TO MEET YOUR ENTIRE NEEDS?

6.5 WHAT DO YOU FEEL ABOUT LOCALLY PROCESSED FOODS IN THE WAY THEY ARE:-

1. WELL MADE?
2. ABLE TO STORE FOR LONG PERIOD?
3. HEALTHY?
4. NUTRITIOUS?
5. ABLE TO COMPETE WITH IMPORTED FOODS?

4.2 APPENDIX 2

A. CONSUMPTION PARTICULARS

2.1 WHAT TYPES OF PROCESSED FOODS DO YOU PURCHASE GENERALLY?

FOOD ITEMS	FREQUENCY DISTRIBUTION OF SCORES
MEATS	135
FRUITS	89
VEGETABLES	104
CEREALS/NUTS	144
SEASONING	21

2.2 HOW FREQUENTLY DO YOU PURCHASE ANY OF THESE FOODS?

FOOD ITEM	DAILY	WEEKLY	FORT-NIGHTLY	TRI-WEEKLY	MONTHLY	OCCASIONALLY
1. Dried foods						
- Powdered Milk	15	21	11	-	15	28
- Flour	15	45	12	-	6	6
- Cereal Flour	16	56	12	-	3	7
- Okra	16	62	12	1	3	-
- Dry Meats	2	18	1	4	2	-
- Dried Fish	60	79	4	-	2	-
2. Baked/Fried Bread	110	15	2	1	-	5
- Cake	10	26	10	1	13	11
- Pancake	35	32	9	2	6	[illegible]
- Meat Pie	30	31	[illegible]	-	12	[illegible]
- Fish Pie	22	[illegible]	[illegible]	1	[illegible]	[illegible]
- Biscuits	11	[illegible]	[illegible]	2	8	[illegible]
- [illegible]	[illegible]	[illegible]	-	1	[illegible]	21
- [illegible]	1	22	[illegible]	1	[illegible]	11
- [illegible]	2	[illegible]	-	[illegible]	[illegible]	[illegible]
- [illegible]	[illegible]	[illegible]	22	[illegible]	[illegible]	[illegible]
3. Concentrated Foods						
- Tomato paste	1.42	11	1	1	1	5
- Jam	7	9	1	2	4	10
- Ketchup	7	8	1	1	2	9
- Peanut butter	64	85	16	3	5	3
4. Oils						
- Groundnuts	23	59	2	-	5	3
- Sesame	6	21	12	-	-	-
- Palm Oil	21	118	2	-	2	3
- Palm kernel	3	16	8	-	-	2
- Vegetable Oil	10	85	7	-	1	8
5. Fermented Products						
- Sour Milk	221	52	10	1	1	12
- Yoghurt	16	11	13	1	-	12
- Cheese	7	10	6	-	4	2
- Vinegar	13	76	15	5	1	11
6. Misc.						
- Ginger	-	18	-	-	-	-
- "Wonjo"	8	20	2	-	-	-
- "Agara"	2	15	3	-	-	-
- "Dang"	2	13	1	1	1	12
- Ice Cream	-	2	-	-	-	-
- Snail	-	2	-	-	-	-
- Meat Balls	-	2	-	-	-	-
- Locust beans	1	2	-	-	-	-
- Smoked Fish	-	-	-	-	-	-

2.3 WHAT TYPES OF PROCESSED FOODS DO YOU PREFER?

TYPE	FREQUENCY SCORES
LOCALLY PROCESSED FOODS	182
IMPORTED FOOD ITEMS	61

2.4 REASONS FOR PREFERENCE OF LOCALLY PROCESSED FOODS.

REASONS	FREQUENCY
1. AVAILABILITY AND AFFORDABILITY	69
2. TASTE	10
3. FRESHNESS	16
4. HYGIENE (natural, no chemical, expiration)	12
5. TRADITION	35
6. NUTRITIVE VALUES	25
7. CHEAP	19
8. PRESERVATION FOR LONGER PERIODS	5

2.5 WHAT FORMS OF PRESERVED FOODS DO YOU CONSUME MOST?

TYPES	FREQUENCY
1. CANNED	84
2. SALTED AND DRIED	60
3. ROASTED	1
4. BAKED, BOILED & FRIED	125
5. FERMENTED	43

B. PURCHASING CONSIDERATIONS

3.1 HOW MUCH PROCESSED FOOD DO YOU CONSUME PER WEEK? ESTIMATE ROUGHLY.

AMOUNT	FREQUENCY
D300 OR MORE	16
D200 OR MORE	24
D150 APPROXIMATELY	35
D100 BUT NOT D150	63
LESS THAN D50	70
MORE THAN D50 BUT LESS THAN D100	14

3.2 WHAT IS THE MOST IMPORTANT ELEMENT OF A PRODUCT THAT AFFECT YOUR BUYING DECISION? ANSWER ONLY ONE

VARIABLES	FREQUENCY
COST	26
PACKAGING	6
QUALITY	51
ADVERTISEMENT	1
HYGIENE	52
PALATABILITY	47
AVAILABILITY	2

3.3 ESTIMATE ROUGHLY WHAT PERCENTAGE OF YOUR MONTHLY INCOME YOU SPEND ON PROCESSED FOOD?

PERCENTAGES %	FREQUENCY
75	9
70	4
60	30
50	64
40	14
30	20
20	32
15	15
10	19
5	12

3.4 DO YOU PURCHASE FOOD FOR AN ENTIRE HOUSEHOLD

SCORES	FREQUENCY
YES	148
NO	53

3.5 DO YOU PURCHASE ALL YOUR FOOD REQUIREMENTS

PERIOD	FREQUENCY
DAILY	114
WEEKLY	54
FORTNIGHTLY	8
TRI-WEEKLY	-
MONTHLY	24
OCCASIONALLY	2

C. VENDOR INFORMATION

1.1 WHERE DO YOU PURCHASE YOUR PROCESSED FOODS?

TYPE	SCORES
RESTAURANT	8
SUPERMARKET	11
LOCAL EATING PLACE	23
CENTRAL MARKET	164
RETAILERS	57
[illegible]	2

1.2 WHY DO YOU CHOOSE CERTAIN VENDORS AS AGAINST OTHERS

VARIABLE	SCORES
[illegible]	26
PROXIMITY	17
RANGE OF CHOICE	51
AVAILABILITY OF GOODS	13
HYGIENE	78

1.3 ARE YOU UNFLINCHINGLY LOYAL TO ANY SELLER

OPINION	SCORES
YES	136
NO	67

4.4 DO YOU BUY GOODS FROM VILLAGE AND SMALL TOWN STORES

OPINION	SCORES
YES	128
NO	17

D. DEMAND SURVEY

5.1 WHAT TIMES OF THE YEAR ARE THE PROCESSED FOODS YOU PURCHASE AVAILABLE?

TIME FRAME	FREQUENCY
ALL YEAR ROUND	113
DURING DRY SEASON	29
DURING WET SEASON	17
NOT SEASONAL AND NOT YEAR ROUND	26
OTHERS	3

5.2 HOW MUCH OF THE PROCESSED FOODS YOU PURCHASE IS AVAILABLE THROUGHOUT THE YEAR?

VARIABLES	FREQUENCY
MORE THAN ENOUGH	25
ENOUGH	69
FAIRLY ENOUGH	64
SLIGHTLY ADEQUATE	15
NOT ENOUGH	28

5.3 WOULD YOU CONSIDER BUYING FOODS OUT OF SEASON WHEN PRESERVED AND MADE AVAILABLE?

OPINION	FREQUENCY
YES	116
NO	81

5.4 WOULD YOU CONSIDER BUYING FOODS OUT OF SEASON IF THE PRESERVED AND MADE AVAILABLE?

OPINION	FREQUENCY
YES	127
NO	76

5.5 HOW MANY NEW FOOD PRODUCTS HAVE YOU BOUGHT IN THE LAST YEAR?

NEW PRODUCTS =	85

GROUP TYPE	NO.
FRUITS	7
VEGETABLES	2
NUTS/CEREALS	3
COOKING OIL	3
JUICES	15

E. PRODUCT FEATURES

6.1 DO YOU CONSIDER LOCALLY PROCESSED FOODS TO BE GENERALLY OF:-

QUALITY	FREQUENCY
A. VERY GOOD QUALITY	13
B. GOOD QUALITY	58
C. AVERAGE QUALITY	74
D. BELOW AVERAGE QUALITY	26
E. POOR QUALITY	3

6.2 WHAT CHARACTERISTICS OF LOCALLY PROCESSED FOODS DO YOU LIKE?

CHARACTERISTIC	SCORES
PACKAGING	50
COST	9
ARTIFICIAL COLOURS	17
FLAVOURING	7
PRESERVATION	60

6.3 WHAT IS YOUR OPINION OF LOCALLY PROCESSED FOODS IN TERMS OF THE FOLLOWING?

VARIABLES	EXPENSIVE	CHEAP	GOOD	FAIR	REASONABLE	NOT GOOD
1. PACKAGING	-	-	31	23	20	20
2. COST	20	10	26	6	20	-
3. ARTIFICIAL COLOURING	-	-	26	8	-	14
4. FLAVORING	-	-	38	5	-	6
5. PRESERVATION	-	-	23	14	-	17

6.4 WHAT ARE THE MAJOR PROBLEMS YOU ENCOUNTER WITH LOCAL PROCESS FOODS?

- POOR STORAGE FACILITIES
- EXPIRED
- AVAILABILITY
- FLIES
- PRESERVATION
- STALE
- PREPARATION
- UNHEALTHY
- INSECTS
- WORMS
- LACK OF MECHANIST PROCESSING TOOLS
- POOR TASTE
- ROTTEN
- UNCOVERED FOOD

- EASILY PERISHABLE
- NO PRODUCT LABELLING
- POOR MARKET OUTLETS
- DIRT IN FOOD

6.5 ON A SCALE OF 1 - 5 (1 IS BEST, 5 IS WORST) ARE LOCALLY PROCESSED FOODS SUITABLE TO MEET YOUR NEEDS?

OPINION	FREQUENCY
1. BEST	12
2. BETTER	27
3. GOOD	92
4. BAD	78
5. WORST	5

6.6 DO YOU THINK LOCALLY PROCESSED FOODS ARE:-

VALUES	FREQUENCY
1. WELL MADE	38
2. STORABLE	17
3. HEALTHY	38
4. NUTRITIOUS	24
5. ABLE TO COMPETE	32