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# Identification of Functional Foods and Factors Influencing their Consumption in Port Loko District Northern Sierra Leone

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*Abstract-* Functional foods are foods that we eat daily and are found in market. The attitude towards limited because of poverty, traditional/religious believe, taboos, illness. Most of these foods are grow in the area of study, but because of poor processing, poor handling harvesting, preservation there are lots of wastages when these foods are in season as there is no know how of low to presence then, and there is a problem of proper handling of these foods due to poor road network and transportation, most of these foods weltered before they reach the final consumer and most of the nutrient find in these foods what have perished, people in this community farm, rear cattle, fishing but do not eat, then, prefer selling them to buy other basic Needs, all these factor contribute to nutritional deficiency which lead to ill health. Functional roads found in this community provides energy, body building, and protect the body from diseases. They have been. It was recommended that the government through the ministry of Agriculture provide resources like staff loans or farmer, fishermen, market sellers, cattle rarer etc, organize workshops, sameness, focus group discussion, Radio bud television talks shows, about the essence of eating functional foods and to deviate from certain believes and taboos about these foods.

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# Identification of Functional Foods and Factors Influencing their Consumption in Port Loko District Northern Sierra Leone

Sylvia Kercher Bangura

*Abstract-* Functional foods are foods that we eat daily and are found in market. The attitude towards limited because of poverty, traditional/religious believe, taboos, illness. Most of these foods are grow in the area of study, but because of poor processing, poor handling harvesting, preservation there are lots of wastages when these foods are in season as there is no know how of low to presence then, and there is a problem of proper handling of these foods due to poor road network and transportation, most of these foods weltered before they reach the final consumer and most of the nutrient find in these foods what have perished, people in this community farm, rear cattle, fishing but do not eat, then, prefer selling them to buy other basic Needs, all these factor contribute to nutritional deficiency which lead to ill health. Functional roads found in this community provides energy, body building, and protect the body from diseases. They have been. It was recommended that the government through the ministry of Agriculture provide resources like staff loans or farmer, fishermen, market sellers, cattle rarer etc, organize workshops, sameness, focus group discussion, Radio bud television talks shows, about the essence of eating functional foods and to deviate from certain believes and taboos about these foods

- Nutritionist to give health talks at health clinics/health post
- Governments to build market stalls and lay emphasises on the seller of fresh, clean and quality body available foods in the market.

## I. Introduction

Functional foods is a relatively new term used to describe food product which have been enrich with Natural substances/component with specific physiological effect. For the prevention and for health promoting effect (– www open. Access. pub org).

All foods eaten are regarded as functional foods because they all provide taste aroma, and has some amount of nutritive value, functional food can be defined as every modified food provide health benefit beyond the traditional nutrient it contains (National Academy of science food and Nutrition). The study is carried out in the Northern region of Port Look District. The following were interview by the researcher as they are fully involving in the producing these functional foods…farmers/gardeners ten (10) fishermen/fish mongers (!0) cattle readers/poultry (10) market sellers (10). A total of 50 respondents were involve in this research. The concept of functional foods originated from Japan in 1980 when the Government agencies slated the approval of food with proven benefit in an effort to better the health of the general population (trusted source 1) functional foods are foods that offers health benefits that extends beyond their nutritional values they also promote health and prevent & Nutritional deficiencies which led to most thermal cases like cancer of Lungs, , fallopian tube other childhood nutritional diseases like kwashiorkor or, marasmus, scabies, anaemia, complicated labour, haemorrhage, functional , etc. The basic functional is to supply nutrient to the body foods are not eaten only to prevent hunger but provide energy, physical mental wellbeing of individuals. Functional foods are bioactive compound which can occur naturally from doing industrial processing where by other sources are added such as phytochemicals eg vitamins/peptide/ polyphenol the compound, carotenoid and is of lavine which provide health benefit such as development, growth and regulations of metabolic process defence against oxidative stress, (card wvascalai and gastrointestinal physiology and physical and cognition performance (Ra of a ella bogie etal 2020.}

Examples of functional foods include modified foods, conventional foods. fortified foods with vitamins and probiotics or fibres nutrient – riels ingredients like fruits ,nuts, , vegetables seeds and grains are often considered functional foods as well oats ,, fibres called beta, glycan which help reduced inflammation and its enhance immune function ad improve heart health (trusted source).

Functional foods can be divided into two modified functional

## II. Conventional Foods

Example of conventional Foods

- *Fruits* – apples, oranges, bananas, lime, , lemon, sour lime grape fruits , pear
- *Nuts* – cashew nuts., groundnuts coconut
- *Seeds* – pumpkin seeds, Bennie seeds, Ogosie seeds, cucumber seed

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- *Legumes* – Broad beaus, black eye beans, cashew beans, lentils, say beans
- *Whole grains* – Oats, brown rice, rough rice, parboiled rice, millet, barley
- *See foods* – Salmon, bongo herring, mackerel,
- *Herbs and spice* – ginger, garlic, onions, pepper, simigie turmeric…
- *Beverage* – Coffee, tea leaf, tea bush, black tea lemon grass.

a) *Modified functional foods*

- *Fortified juices* – Orange juice, grape fruit juice, lemon juice, mango juice tangerine juice, apple juice, carrot juice, black velvet juice, coconut juice

Fortified diary product, sour milk sweet milk., yogurt, ice creams.

Fortified milk alternative a rice, coconut cashew milk.

Fortified grains, rice cake, rice/flour bread pasta, macaroni, rice sticks

Fortified eggs – eggs of birds origin

These functional foods listed above have the potential benefit to prevent nutrient or diet related diseases. The introduction of fortified food has decreased diet related diseases. Such as rickets, goitre, birth defect (trusted source)

b) *Functional foods promote growth and development*

Nutrient are essential for the proper growth and development especially in infants, it is very important for humans or every stage of development for our diet to include. Nutritional needs according to their health status. All functional foods can either have any of the following food groups. body building foods, protective foods and energy giving foods. Which help the individual to stay healthy rice is our staple food and it is eaten with either source (vegetables leaves soup with either meat, fish or any other see foods its provides quality, taste and flavours which enhance appetite.

The soup source is prepared with either vegetable oil, soybean oil, palm cannel oil, corn oil which contain high oxidative stability with high oxidative capacity with green vegetables like garden eggs. better balls. onions, fish. chicken, meat,

Probiotics have the following effect on health.

- Actions on the immune system
- Antihumoial and help the protective actions
- Prevented diarrhoea caused by rota vines, clostridium
- Balanced of intestinal micro flow energy, protect from illness or diseases and the repair one out tissues, these functional foods are rich in omega father acids, iron, zines, calcium and vitamin B12, folic acid vitamins and minerals. All these give support to the overall growth and development and a send health in

The prevalence of nutrient deficiencies is gradually decreasing in the Port Loko as there are sensitization at both antenatal clinic and post-natal clinics at all peripheral Health unit and community Health post and Government Hospitals, displays of such foods are sometimes carried out during Nutrition health talks as demonstration and food corner were foods are displayed. People are becoming conscious with the advent of covid 19, were, food stores were closed and were locked down. most houses has back yard, these foods were utilize and help greatly. As now local markets are selling these food stuff.

In this community when fruits and vegetables are in season there is always a wastage of them as there is few or no knowledge about the preserving of these foods. Therefore, they are only available when they are in season. The processing of some of these foods are done locally and there is small or no hygiene in handily processing and consumption of the food. Therefore, foods withered or become more infected and become unfit for human consumption and become prone to health hazards, eg E.coli, diarrhoea, worm infestation, vomiting, foods or compose of all biologically active components that have the potential to optimize their physical and mental wellbeing and which in the long run help prevent chronic disease. These foods contain minerals, vitamins and probiotics that balanced the diet which provide the body with all nutrients its needs people are now embarking on farming, fishing cattle or poultry rearing and business of its benefits, accessibility, affordability of these product. (functional foods related news)

## III. Statement of the Problem

Functional foods are foods that will eat in other to promote growth and development and to prevent diet related diseases. In the community foods that should be eaten to promote growth and development and present diet related diseases are net known and even with the little they know as foods are seldomly only eaten because of traditional religious believes, Taboos, Societal norms. Certain aliment illness unknown functional in the Region, dislikes allergies.

There is also a problem of processing preservation, handling transportation and good storage of these foods and therefore when most of the foods are in season, they are wasted and one could not get access to them throughout the year.

- There are no factories even modified their foods so that they can be used all round the year or even when out of season

The prevalence of diet related diseases especially moneys in fact and adults, pregnant women and lactating mothers are due to etc factors stated above. The researcher has tough it if to identify functional foods and und solution for proper harvesting,



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handling, processing, preservation, transportation of consumption of foods

## IV. Aims and Objectives

*Aim* – The aim of this research is to identify the functional foods and factors influencing the consumption of these foods in Port Loko, Northern Sierra Leone.

*Objective* –

The objectives of these studies are as follows:

i. To identify the different types of functional foods
ii. To find out factors that limit the consumption of these foods
iii. To raise awareness in the community about the benefits and medicinal values in the consumption of functional foods
iv. To suggest or recommend on the consumption of these foods to the Government and other NGO dealing with agriculture and nutrition

## V. Methodology

The research was carried out in Port Loko District Northern Sierra Leone. The targeted group comprises of fifty (50) respondents. farmers/gardeners (10) fishermen/fish mongers/ (10) cattle/poultry rears /market sellers Transporters (10). It composes of both male and female who provided the necessary information about the different functional groups and how often it is consume.

## VI. Analysis of Data Collection

The chapter deals with the analysis of data gathered from verbal interview, through focus group discussion with a guided questionnaire, Both quantitative and qualitative analysis of the research was carried out. With these research.

*Table 1:* Occupation of Respondent and Sex

| No. | Occupaation | Male | | Female | |
|---|---|---|---|---|---|
| | | NO | % | NO | % |
| 1 | Farmers/gardener | 6 | 60 | 4 | 40 |
| 2 | Fish mongers/fishermen | 7 | 80 | 3 | 30 |
| 3 | Cattle rearers/poultry | 8 | 80 | 2 | 20 |
| 4 | Market sellers/consumers | 4 | 40 | 6 | 60 |
| 5 | Transporters | 8 | 80 | 2 | 20 |

The table above shows the respondent interview and their sex, farmers 60% male 40% female, fish mangoes fishermen 70% male 30% female, cattle rears/poultry 80% male and 20% female, market sellers/consumers 40% male, 60% female transports 80% males and 20% farmers.

These functional foods help in the repair of worm out tissues. Cattle/poultry rears – They rear and sell cattle's and poultry products to market sellers who in turn sell to consumers. All edibles animals cow, pig, monkey, snakes, goat, sheep etc chicken, birds and their products like eggs

*Farmers* – With farmers there are low scale farmers and high of grade farms and

*Sources* – Grain, millet, barley, beans, groundnut, plantation (oranges, mangoes, grapes, cheshwenut water melon, pineapple, rears, bananas, grapes etc

*Fishermen*/ - They do deep fishing. All type of sea foods – tortoises. All type of fish, snails shipe.

*Market seller* – They do both whole sales and retails of goods brought from the farms its can be any of the functional food groups. Conventional/modified medicinal.

## VII. Classification of Functional Foods

*Conventional foods* - These are foods that contain Natural probiotics substance such as:

*Fruit* – apples, mangoes, bananas, grapes lemon, sweat sharp, sour lime pears, paw-paw, oranges, water melon, guava, pineapple, cucumber, seed tomatoes …., potatoes leaves, garden eggs, better balls, pumpkin, cabbage, mushrooms, potatoes

*Nuts* – Cashew nut, groundnuts, cocoanuts, palm-kernel nuts, cocoanuts

*Seeds* – Pumpkin seeds, cucumber seeds Bennie seeds Ogosi seeds, groundnut, paw-paw seeds, orange seeds corn pumpkin seeds

*Legumes* - Bread beans, black eye beans, lentils, soy beans, cashew.

*Whole grains* – Funday, rough rice, parboiled rice, millet, surgeon, brown rice, Gari, barley.

*Seafood's* – Salmon, bongo, snapper tortoise, shrimps, cuta, herring, snails, crabs,

*Animal/birds origin* – Flesh of cow, pig, goat, sheep, freetownbo, monkey, chicken, turkey, snakes, frogs.

II Fermented foods –

*Herbs and spices* – Onions, garlic, simigie pepper, turmeric, ginger

*Beverage* – Coffee, Tea leafs, tea bush, lemon grass, black velvet, Moraga, mango leaves.



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*Tables 2:* Level of Understanding on the Information Provided by Respondent on Functional Foods

| | Low | Medium | | High | | | |
|---|---|---|---|---|---|---|---|
| NO. | | No | % | No | % | No | % |
| 1 | Farmers/grandees | 6 | 60 | 3 | 30 | 1 | 10 |
| 2 | Fishermen/fish monger | 7 | 70 | 2 | 20 | 1 | 10 |
| 3 | Cattle rearers/poultry | 7 | 70 | 30 | 30 | 0 | 0 |
| 4 | Transporters | 7 | 70 | 3 | 30 | 0 | 0 |
| 5 | Market seller | 5 | 50 | 30 | 30 | 2q | 20 |

The knowledge of understanding about the information provided by respondent were as follows farmers 70% of fishermen/cattle rearer /transporters are low, whole 60% farmers, 50% of market sellers name cow, 30% farmers, fishermen, cattle rears, transporters and market sellers has a medium level of understanding and only 20% fish sellers an average of 10% high for farmers, fisher men

## VIII. Nutrient Found in Functional Foods and their Sources

Mineral/include vitamins irons, etc. they are fund in the following foods meat, cereal grain, fish milk and dairy product, cabbage, carrot ground Nuts.

*Fats and oil* – Cocoanut oil, butter, filthy meats, vegetable oil, palm oil, palm kennel nut oil beef, lands, pork, corned

Fats and oil makes up the major classes of food soybean oil, sunflower oil, olive oil, mustard seeds/functional foods also provide energy.

*Carbohydrate* - rice, bulgur, barely, millet, cassava, potatoes, yams, foo. These provides energy for the body.

*Proteins* - fish, salmon, crab, ouster, shrimps, herring, bongo tortoise.

*Attitude and culture* – The attitude and culture plays an important aspect in the complication of foods, culture interferes with the consumers wants and behaviour as there are set of rules and behaviour binding some of these foods and is varies from Region to region and tribe to tribe. traditional, Religious, taboos are said to inter facing in the consumption of foods that are nutritive and medicinal that are of important

*Table 3:* Factors That Forbid the Consumption of Functional Foods

| NO. | | NO | % |
|---|---|---|---|
| 1 | Traditional believes | 10 | 20 |
| 2 | Religious believes | 08 | 16 |
| 3 | Taboos | 10 | 20 |
| 4 | Societal norms | 05 | 10 |
| 5 | Allergy | 05 | 10 |
| 6 | Poverty | 12 | 24 |
| | Total | 50 | 100 |

According to the table above traditional believes and taboos 20 %., societal norms and allergy 10%, religious believes 16%. have been cause of people not eating these functional foods.

24%. Poverty. Poverty is the leading factors for all these problems of people not consuming these foods. if one is rich and has an allergy with one food he or she can go in search for another religious, etc.

## IX. Medicinal Foods and what they Treat/Prevent

Turmeric-Reducing inflammation and tendency of cancer

- Honey Best for healing. digestive trouble, by decreasing intestines obstructions
- Eggs- Enhance recovery and wound healing
- Apple-/ vinegar –Best for burning fats and harmful blood lipids
- Paw paw---prevent constipation
- Green vegetables – eg potatoes leaves, greens, cassava leaves, increase blood, prevent anaemia
- Sweet potatoes –Good for weight loss
- Fruits –oranges, - lemon, good for healing process and prevent common cold and cough

*Fatty fish* - salmon, herring and fight inflamation9 contain omega 3 fatty acid which prevent heart diseases

- spices eg --- ginger, onions, help reduce inflammation and lower disease
- Green tea ---eg simigie lemon grass, Reducing inflammation and lower disease risk

*Nuts seeds* - good source of protein and help to protect the body and build worn out tissues

*Honey and lime* - treatment of cough and cold

*Hibiscus tea* - prevent high blood pressure

*Ginger* - treat menstruation cramps

*Seed tomatoes* - prevent the risk of prostate glands
Okra increase blood and prevent anaemia

*Beans* - lower blood sugar

*Palm oil* - prevent anaemia

*Palm kennel nut* - treatment of burns

*Mangoes* - lowering of blood sugar



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## X. Conclusion and Recommendations

*a) Conclusions*

Functional foods are essential in the prevention of diseases it is important bin our daily living as its provides the body with growth and development, prevent nutrient deficiencies and protect the body against disease, most of the consumer purchase their foods. There is low yield production due to poor machinery, techniques; poverty is the leading factor of consumers not eating functional foods, They prefer to sell them to others for them to buy their basic needs for the family, religious; traditional, taboos, allergy societal norms and an overall positive altitude should be reinforced in other to influence through support these people in these community to eat functional foods

*b) Recommendations*

The researcher wishes to recommend the following

The government through the ministry of Agriculture and food security to provide soft loan, machinery, seeds tractor, fertilizers for farmers, fishing boats, fishing 8nets for fisher men; young cattle's poultry, market stalls for service provider.

Ministry of agriculture and nutrition directorate to conduct workshops seminars, and other training relating to functional foods.

Nutritionist to conduct health talks through radio, television, news health corners, at ante natal clinic and post-natal clinics, including outpatient. On the impotent of consuming functional foods

Government to provide factories for processing foods so that these foods will be available throughout the year

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