



GAMBIAN STANDARD FOR SMOKED FISH, SMOKE-FLAVOURED FISH  
AND SMOKE-DRIED FISH

ICS No. 67. 120.30

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## **DATE OF PUBLICATION**

This Gambian Standard was Gazetted under the authority of the Bureau in August 2015.

## **THE GAMBIA STANDARDS BUREAU**

The Gambia Standards Bureau is a statutory Government specialized Agency established by The Gambia Standards Bureau Act 2010 to standardize products, methods, systems and for connected matters. Hence, the Bureau is the sole National Standardization Body. As such, it has been a member of International Standardization Bodies such as the International Organization for Standardization (ISO) since 2011, International Electrotechnical Commission (IEC) and the Standards and Metrology Institute for Islamic Countries (SMIIC) from 2012.

The objectives of the Bureau, as specified in its Act, are to: establish and promulgate standards for imported and locally-produced goods; facilitate domestic and international trade; foster and promote standards both for industrial efficiency and advancing economic development; promote the health and safety of consumers; enhance international cooperation in relation to standards and standardization. Thus, the National Quality Policy details the responsibilities of the Bureau in Standardization, Metrology and Conformity Assessment services in Testing, Inspection and Certification.

Therefore, the functions, of the Bureau are to define, prepare, publish, modify or amend Standards Specifications as well information-dissemination of standards. In addition to providing Testing, Inspection and Certification services for goods, systems and processes independently or in relation to conformity with its Standards Mark, the Bureau also conducts training and research. In Metrology, the Bureau serves as the custodian of primary national reference measurement standards through its National Metrology Laboratories and conducts calibration of measurement devices and physical standards.

The development of Gambian Standards (GAMS) is carried out by the Bureau through Technical Committees composed of a balanced representation of stakeholders, as may be appropriate to the subject in question. The Bureau ensures that Standards are developed in accordance with the *ISO\_IEC\_Guide\_21-1\_2005: Regional or National adoption of International Standards and other International deliverables* and the *World Trade Organization Code of good practice for the preparation, adoption and application of standards*. To the greatest extent possible, Gambian Standards are aligned to or are adoptions of relevant international standards.

For further information on and copies of Gambian Standards, please contact The Gambia Standards Bureau.

## **Committee Representatives**

The Technical Committee on National Food Standards which supervised the development of this Gambian Standard consists of representatives from the following organizations:

**National Codex, Sanitary and Phytosanitary Committee (NCSPSC)**

**Food Safety and Quality Authority of The Gambia (FSQA)**

**National Nutrition Agency (NaNA)**

**Food Technology Unit of Department of Agriculture (FTU-DOA)**

**Animal Health and Production Services (AHPS)**

**Plant Protection Services (PPS)**

**National Agricultural Research Institute (NARI)**

**National Association of Food Processors (NAFP)**

**National Poultry Farmers Association of The Gambia (NPFA)**

**National Women Farmers Association (NAWFA)**

**Consumer Protection Association of The Gambia (CPAG)**

**Jawneh and Family Cashew Farm (JFCF)**

**Agribusiness Services and Production Association (ASPA)**

**Gambia Livestock Marketing Agency (GLMA)**

**Fisheries Department**

**Association of Fishing Companies**

**Gambia Groundnut Cooperation**

The Working Group on Processed Food Products which developed this Gambian Standard consists of representatives from the following Organizations:

**Fisheries Department**

**Association of Fishing Companies**

**Food Safety and Quality Authority of The Gambia (FSQA)**

**National Nutrition Agency (NaNA)**

**Food Technology Unit of Department of Agriculture (FTU-DOA)**

**Consumer Protection Association of The Gambia (CPAG)**

## FOREWORD

The Gambia Standards Bureau (TGSB), in conformity with international best practice, coopted the National CODEX, Sanitary and Phytosanitary Committee (NCSPSC) as its Technical Committee (TC) on Food Standards. The Secretariat for this TC is the Bureau. This TC adopted the CODEX Standard for Smoked Fish, Smoke-Flavoured Fish And Smoke-Dried Fish. The Procedure for adoption was the *ISO/IEC Guide 21-1 - Regional or national adoption of International Standards and other International Deliverables - Part 1: Adoption of International Standards*. The method of adoption was Direct Adoption.

This Gambian Standard applies to salt used as an ingredient of food, both for direct sale to the consumer and for food manufacture.

The Standard addresses the following:

- Scope and description;
- Composition and quality factors;
- Additives;
- Contaminants;
- Hygienic requirements;
- Labeling requirements.
- Sampling, definition of defective and lot acceptance.

This Standard can be obtained from The Gambia Standards Bureau.

## SCOPE

This standard applies to smoked, smoke-flavoured and smoke-dried fish prepared from fresh, chilled or frozen raw material. It deals with whole fish, fillets and sliced and similar products thereof. The standard applies to fish, either for direct consumption, for further processing, or for addition into speciality or minced products where fish constitutes only part of the edible contents.

It does not apply to fish treated with carbon monoxide (filtered, “clear” or ‘tasteless’ smoke), fish packaged in hermetically sealed containers processed to commercial sterility. Speciality or minced products as such are not included (e.g. fish-salads).

### 2.1 SMOKED FISH

#### 2.1.1 Product definition

Smoked fish is prepared from fish that has undergone a hot or cold smoking process. The smoke must be applied through one of the smoking processes defined in Section 2.1.2 and the end product must have smoked sensory characteristics. Spices and other optional ingredients may be used.

#### 2.1.2 Process definitions

□□ **“Smoking”** is a process of treating fish by exposing it to smoke from smouldering wood or plant materials. This process is usually characterised by an integrated combination of salting, drying, heating and smoking steps in a smoking chamber.

□□ **“Smoking by regenerated smoke”** is a process of treating fish by exposing it to smoke which is regenerated by atomizing smoke condensate in a smoking chamber under the time and temperature conditions similar to those for hot or cold smoking.

□□ **“Smoke Condensates”** are products obtained by controlled thermal degradation of wood in a limited supply of oxygen (pyrolysis), subsequent condensation of the resultant smoke vapours, and fractionation of the resulting liquid products.

□□ **“Hot smoking”** is a process in which fish is smoked at an appropriate combination of temperature and time sufficient to cause the complete coagulation of the proteins in the fish flesh. Hot smoking is generally sufficient to kill parasites, to destroy non-sporulated bacterial pathogens and to injure spores of human health concern.

□□ **“Cold smoking”** is a process of treating fish with smoke using a time/temperature combination that will not cause significant coagulation of the proteins in the fish flesh but that will cause some reduction of the water activity.

□□ **“Salting”** is a process of treating fish with salt of food grade quality to lower water activity in fish flesh and to enhance flavour by any appropriate salting technology (e.g. dry salting, brining, injection salting).

□□ **“Drying”** is a process in which the moisture content in the fish is decreased to appropriate required characteristics under controlled hygienic conditions.

□□ **“Packaging”** is a process in which smoked fish is put in a container, either aerobically or under reduced oxygen conditions, including under vacuum or in a modified atmosphere.

□□ **“Storage”** is a process in which smoked fish is kept refrigerated or frozen to assure product quality and safety in conformity with Sections 3 and 6.

## 2.2 SMOKE FLAVOURED FISH

### 2.2.1 Product definition

Smoke-flavoured fish is prepared from fish that has been treated with smoke flavours, without undergoing a smoking process as described in Section 2.1. The end product must have a smoked taste. Spices and other optional ingredients may be used.

### 2.2.2 Process definition

□□ **“Smoke flavours”** are either smoke condensates or artificial flavour blends prepared by mixing chemically-defined substances in known amounts or any combination of both (smoke-preparations).

□□ **“Smoke flavouring”** is a process in which fish or fish preparations are treated with smoke flavour. The smoke flavour can be applied by any technology (e.g. dipping, spraying, injecting, soaking).

□□ **“Smoke Condensates”** are products obtained by controlled thermal degradation of wood in a limited supply of oxygen (pyrolysis), subsequent condensation of the resultant smoke vapours, and fractionation of the resulting liquid products.

□□ **“Packaging”** is a process in which smoke-flavoured fish is put in a container, either aerobically or under reduced oxygen conditions, including under vacuum or in a modified atmosphere.

□□ **“Storage”** is a process in which smoke-flavoured fish is kept refrigerated or frozen to assure product quality and safety in conformity with Sections 3 and 6.

□□ **“Drying”** is a process in which the moisture content in the fish is decreased to appropriate required characteristics under controlled hygienic conditions.

□□ **“Salting”** is a process of treating fish with salt of food grade quality to lower water activity in fish flesh and to enhance flavour by any appropriate salting technology (e.g. dry salting, brining, injection salting).

## 2.3 SMOKE-DRIED FISH

### 2.3.1 Product definition

Smoke-dried fish is prepared from fish that has undergone a combined smoking and drying process and may include a salting process. The smoke must be applied through a smoke-drying process traditional for the respective country or an industrial smoke-drying process and the end product must have smoke-dried sensory characteristics. Spices and other optional ingredients may be used.

### 2.3.2 Process definition

□□ **“Smoke drying”** is a process in which fish is treated by combined smoking and drying steps to such an extent that the final product can be stored and transported without refrigeration and to achieve a water activity of 0.75 or less (10% moisture content or less), as necessary to control bacterial pathogens and fungal spoilage.

□□ **“Drying”** is a process in which the moisture content in the fish is decreased to appropriate required characteristics under controlled hygienic conditions.

□□ **“Salting”** is a process of treating fish with salt of food grade quality to lower water activity in fish flesh and to enhance flavour by any appropriate salting technology (e.g. dry salting, brining, injection salting).

□□ **“Packaging”** is a process in which smoke-dried fish is put in a container to avoid contamination and prevent rehydration.

□□ **“Storage”** is a process in which smoke-dried fish is typically kept at ambient temperature in a way to assure its safety and quality in conformity with Sections 3 and 6.

## 2.4 PRESENTATION

Any presentation of the product shall be permitted provided that it meets all requirements of this Standard, and it is adequately described on the label to avoid confusing or misleading the consumer.



Only the informative sections of standards are publicly available. To have access to the full standard, you will need to purchase the standard from The Gambia Standards Bureau. You can contact the Bureau on **TEL:** 4464210, **Email:** [info@tgsb.gm](mailto:info@tgsb.gm)