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DRAFT EAST AFRICAN STANDARD

**Fish handling, processing and distribution — Code of practice — Part 1:
Fresh fish handling and processing**

EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

DEAS 62-1 was prepared by Technical Committee EAS/TC 003, *Fish and fishery products*.

This second edition cancels and replaces the first edition (EAS 62-1: 2000).

Fish handling, processing and distribution — Code of practice — Part 1: Fresh fish handling and processing

1 Scope

This Draft East African Code of practice provides guidelines for the handling, processing and distribution of fresh fish intended for human consumption.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EAS 12, *Potable water — Specification*

EAS 39, *Hygiene in the food and drink manufacturing industry — Code of practice*

3 Terms and definitions

For the purposes of this standard, the following terms and definitions shall apply

3.1

fish

freshwater and marine vertebrate fish

3.2

fresh fish

fish that has never been frozen, smoked or otherwise preserved, except by chilling, and that complies with the quality requirements of this Code. Fish in rigor should be deemed to be fresh fish.

3.3

frozen fish

fish that have been subjected to a freezing process sufficient to reduce the temperature of the whole products to a level low enough to preserve the inherent quality of the fish

3.4

thawed fish

fish which has been frozen but is now unfrozen

4 Water supplies

For the washing of fish there should be an adequate supply of potable water under satisfactory pressure. The water shall comply with EAS 12.

5 Cleaning and sanitizing procedures

5.1 In the cleaning and sanitizing of plant and equipment, the following 5 steps should be employed:

- a) dry-clean.
- b) clean with cold water to remove gross dirt and contamination.
- c) clean with warm water containing a detergent, with the aid of a suitable cleaning tool.
- d) sanitize using a suitable sanitizing agents
- e) rinse off with warm water at 40 °C to 50 °C before processing recommences.

5.2 Standard cleaning procedures should be developed for use in the various stages of the catching and processing line. Where practicable the effectiveness of routine cleaning should be checked by periodic bacteriological sampling. Other points to be noted are as follows:

- a) Cold water, preferably under pressure, should be used for the preliminary rinse
- b) All possible aids including warm water at 40 °C to 50°C, soap or synthetic detergents, scrubbing or high-pressure sprays should be used in the whole operation during cleaning. Where detergents are used, they should be an approved non-tainting type
- c) Sanitize well cleaned surfaces to safeguard against the build-up and spread of pathogenic and spoilage micro-organisms.
- d) Steam or hot water over 82 °C may be used for sanitizing only if the temperature at the surface of the object being treated is maintained above 82 °C for at least 2 minutes and preferably longer. Where conditions cannot be met consistently in practice the use of sanitizer rinses is recommended.
- e) Sanitizers should be non-corrosive, non-perfume, non-tainting and should be used in the contact time recommended.

Note: As sanitizers lose most of their effectiveness when used on dirty surface; the sanitizing procedure should not be employed as a substitute for thorough cleaning.

6 Requirements on board the fishing vessel

6.1 Fishing vessel or transport boat

- a) The deck area used in sorting and cleaning fish should be washed immediately before and after each catch is stored.
- b) The entire deck area of all fishing vessels (and, in the case of undecked vessels, the deck boards and bilge) or transport boat should be cleaned and sanitized immediately after the discharge of the fish taken on each trip.
- c) The decks and holds of vessels, storage tanks and storage areas, containers and shelves and all surfaces coming into contact with fish should be maintained in good repair, and should be cleaned and treated with a sanitizer immediately after the discharge of each catch.
- d) All cleaning areas including cutting benches should be cleaned and treated with a sanitizer when necessary, as well as immediately before use and after the discharge of the catch.
- e) Utensils and equipment used in processing fish should at all times be maintained in a hygienic condition, and should be cleaned and treated with a sanitizer at the end of each working day. Utensils and equipment should be retreated with a sanitizer immediately before use.

- f) Provisions should be made on the vessel or transport boat for proper storage of oils or materials, which could damage, contaminate or taint fish. Bait should be stored in containers capable of being readily cleaned and should be stored in such a way that it will not contaminate or taint the fish. The containers should be cleaned and treated with a sanitizer before re-use. All edible fish should be protected from damage or contamination.
- g) The bilge of all vessels should be maintained in a sanitary condition.

6.2 Handling of fish on board

- a) All fish should be washed, and the debris removed from the fish prior to storage. Offal and voter should be kept clear of the fish, and should be disposed of at the earliest possible time.
- b) Eviscerated fish should be washed, and the belly cavity cleaned in potable or clean sea water.
- c) Containers for holding fish on the vessel or transport boat should conform to the requirements of 6.1(d) and 6.1 (e)
- d) All ice should be derived from potable water and should be clean wholesome and not be re-used.
- e) Storing of fish on the vessel should be done under clean and hygienic conditions. Fish should not be exposed to deterioration or damage, nor should it be spiked in the flesh.
- f) Iced fish stored in boxes, pounds, bins or pens should be packed with sufficient ice to maintain the fish at temperature close to that of melting ice between 2 °C and –1 °C for the duration of the trip.
- g) Fish bins and pens should be provided with removable shelves at not more than 1 m intervals so as to prevent the crushing of fish.
- h) Where one specie of fish is known to have a detrimental effect on another specie when stored together, each specie should be stored in separate bins.
- i) Packing and storage of fish should be so arranged so that adequate drainage is provided

7 Requirements at point of unloading from fishing vessel or transport boat

7.1 Unloading procedures should be in accordance with sound commercial practice, and fish should not be left exposed to sunlight, rain, wind, extremes of temperature, or contamination by birds and vermin.

7.2 Any conveyors, fish pumps, or other mechanical systems which are used for unloading and which come into contact with the fish should be maintained in good repair and thoroughly cleaned and treated with a sanitizer after each operation.

7.3 Unless the fish is to be processed immediately, fish which has been de-iced during unloading should be re-iced or placed in a chiller operating at temperature between 2° and –1° within 3 hours.

8 Requirements during transportation

8.1 From the fishing vessel or transport boat to shore establishment

- a) Fish or fish products for human consumption should not be transported in containers or vehicles where spoilage or contamination is likely to occur from contact with other goods. Offal or bait not treated in the same manner, as edible fish should be kept physically separated.

- b) Containers and the freight compartment of vehicles should be so constructed as to be easily cleaned and drained. Material used for lining should be corrosion resistant and impervious to water. The floor of the vehicle should be constructed of corrosion resistant durable material impervious to water. All interior angles should be rounded to facilitate cleaning.
- c) Containers and the freight compartment to vehicles should be kept clean.
- d) Returnable containers should be constructed of all metal or plastic material, or a combination of these materials. Returnable containers should not be used for any purpose other than for holding and transportation of fish.
- e) Non- returnable fish containers should be constructed from new uncontaminated materials. Non-returnable fish container should not be reused for the holding and the transportation of edible fish.
- f) Containers should not be filled to such a degree as to cause damage to the fish where one container is placed on another.
- g) Where removal trays are used as liners in a vehicle, fish should not be carried loose in them unless completely protected from contamination. Trays used for the transport of fish should be effectively cleaned and treated with a sanitizer after use.
- h) Fish should be transported in appropriate containers or vehicles adequate to maintain the required temperature

8.2 Loading and unloading of fish

8.2.1 Frozen fish should be loaded within a refrigerated transport vehicle in such a manner as to leave an air space of at least 25 mm and preferably 50 mm between cargo and floor, wall and roof.

8.2.2 During any time interval when loading or unloading operations ceases, mechanical refrigeration equipment should be turned on and be operation, and doors or containers and vehicles should be kept closed

9 Requirements and equipment for processing establishments

These shall comply with EAS 39 and applicable regulations in partner states.

10 Operation in processing establishments

- a) No other foods should be processed, cooked or packaged in the processing room while fish is being processed.
- b) All containers containing fish should be moved within the establishment on trolleys, barrows, conveyors, or such suitable equipment and should not be slid over the floor.
- c) Containers that have contained fish or fish products should be thoroughly cleaned before being re-used.
- d) Utensils and equipment, including preparation and packaging tables coming into contact with fish, should at all times be maintained in a hygienic condition,
- e) Insecticides, rodenticides, and other toxic chemicals should not be applied during processing, or when the exposed product is present. Working surface, containers packaging, and raw materials should at all times be kept free from toxic residues

11 Guidelines for retailers

11.1 Fish preparation area

The preparation area shall comply with EAS 39 and applicable regulations in partner states. Unauthorized personnel should not be allowed in the area.

11.2 Shop serving area

11.2.1 The shop-serving area should comply with applicable regulations in partner states

11.2.2 Every retailer dealing in fresh fish shall have effective chilled storage with a capacity of not less than 1 day's supply. Retailers dealing in frozen fish shall provide refrigerated storage with a capacity of not less than 2 day's supply.

11.2.3 Fish and fish products exhibited for sale shall be:

- a) Shaded from the direct rays of the sun, and protected by windows from external contamination; and
- b) Even where refrigerated windows or refrigerated slabs are in use; ice is still desirable.

11.3 Dwelling and utensils

11.3.1 Windows slabs and shelves used for displaying fish and fish products shall be made of, or covered with, stainless steel, glass, marble, plastic, or other material possessing similar surface characteristics and shall be so arranged as to facilitate drainage and cleaning.

11.3.2 Containers in which fish is washed and processed should be made of stainless steel or material with similar surface.

11.4 Cleaning

Cleaning operation shall comply with EAS 39 and EAS 832.

11.5 Requirements for all staff engaged in handling fish

The Requirements for all staff engaged in handling fish shall comply with EAS 39 and applicable regulations in Partner States.

