

SMALL FISH AND FOOD SECURITY: TOWARDS INNOVATIVE INTEGRATION OF FISH IN AFRICAN FOOD SYSTEMS TO IMPROVE NUTRITION

Dried bumper fish and de-heading of anchovies and bumper



Packaged whole anchovies



Vacuum packaged fish powder



Waffle and pepper sauce mix



Pepper Sauce (Shito)



Biscuit



Ready to eat cereal mix



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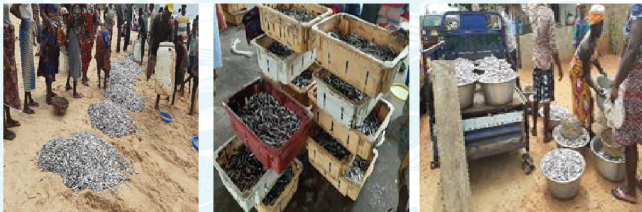
INTRODUCTION

The small fish industry in Ghana even though undervalued provides food security, nutrition, employment, income and maintenance of livelihoods for fishermen and fish processors. The traditional practice with sun dried fish all over Africa involves drying the fish on the ground exposing them to flies, insects, fecal matter, microorganisms, rain water etc. This practice has led to concerns about the safety and quality of these small fish and in adverse weather conditions leads to huge revenue losses to the fish processors who are mostly women.

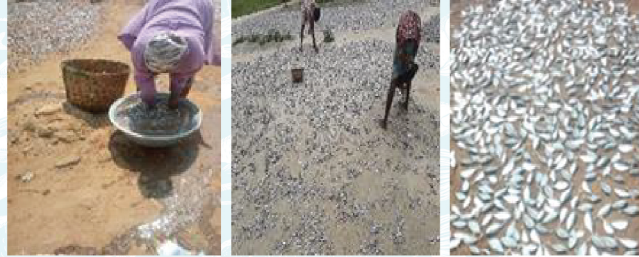
SOME EXISTING FISH PROCESSING & DRYING PRACTICES

- Purchase of fish from boats or canoes.
- Sprinkle the fish on the ground to dry.
- Some however wash once, mostly with sea water.
- Sprinkle on the ground to dry for 2-5 days depending on the intensity of the sun.
- When adequately dried, they are swept with long brooms to gather them for collection.
- They are sieved off sand, packaged into baskets and covered with thick polyethylene.
- Stored for up to several months to a year for sale.

Display of fish for sale and transportation



Washing and drying of fish on the bare ground



Other traditional drying forms



Collection of dried fish and packaging into baskets



Packaged fish for storage and fish displayed for sale at open markets

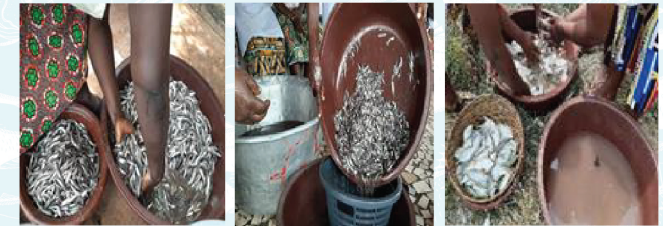


Hygienic Fish Processing & Drying Practices

There is a need to improve on the production processes to achieve better quality and longer shelf life of small fish and reduce losses.

- Wash fish at least twice in clean salt water and NOT with sea water.
- Drain out water in a basket/sieve.
- Dry fish on rack placed on raised platform and lock it.
- Turn over for the other side to dry.
- When dried enough, package whole or de-headed.
- It can also be milled into a powder for use as thickener in soups and stews, cereal mix, waffle mix, biscuits and other value added food products.

Washing of fish hygienically



Drying on racks placed on raised platforms

