
DFM Working Paper

Development Interventions related to Dried Fish in Sri Lanka

This Working Paper briefly summarizes development interventions by the National Aquatic Resource Research & Development Agency (NARA) and the Ministry of Fisheries and Aquatic Resources Development (MFARD) in Sri Lanka.

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Dried Fish Matters:

Mapping the social economy of dried fish in South and Southeast Asia for enhanced wellbeing and nutrition

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National Aquatic Resource Research & Development Agency (NARA): Post-Harvest Institute

The Division conducts research to ascertain and improve post-harvest technology applicable to the aquatic resources. The main activities of the division include:

- Introduction of new food processing technologies for both food items and support products from locally available under-utilized or non-utilized aquatic resources.
- Introduction of improved hygienic processing techniques for traditional fish products.
- Offering laboratory and consultancy services on microbiological assessment, chemical analysis, food preservation, processing, and quality control.
- Development of technology for extraction of fish oils from fish and fish wastes.
- Investigation of post-harvest losses and measures to minimize the post-harvest loss in the future industry.
- Conducting research to help minimize the occurrence of human health hazards due to contamination of fish and fishery products from chemical residue, antibiotics, biotoxins and resistant pathogens.

NARA interventions in the dried fish sector

1 Cold air fish drying

Cold air fish drying has been introduced to reduce the nutrient loss that occurs in fish drying in high temperatures.

2 Low-salt dried fish

Research has been carried out to develop a method to produce dried fish that uses minimal salt and maintains protein content. It has been determined that the low-salt dried fish can be kept more than three months at ambient temperatures (29-31°C) with the use of polythene or vacuum packaging.

3 Heavy salted dried fish

Research has been carried out to introduce heavy salted dried fish. It has been determined that heavy salting increases the yield, quality, and safety of dried fish by minimizing bacterial contaminants.

4 Introduction of new dried fish varieties

Examples of new dried fish and seafood products include those made from scavenger fish and from oysters.

5 Development of a fish dryer

It has been determined that the improvement of the drying system is the single most important and essential aspect in the development of the dried fish sector.

In collaboration with the National Engineering Research and Development Centre (NERD), NARA is working on developing a dryer for dried fish production.

6 Conducting awareness and training programs on processing and post-harvest activities of fish

7 Design and distribution of communication tools (leaflets, brochures, booklets, posters) to disseminate knowledge on fish processing techniques

Challenges facing NARA interventions in the dried fish sector

- There is no process to assess the quality of the dried fish that comes to the local market. (Only the dried fish varieties which are exported are being assessed for quality.) *The responsibility of assessing the quality of dried fish in the local market is vested in the Public Health Inspectors (PHIs) appointed by the Ministry of Healthcare and Nutrition, to maintain public health standards.*
- Lack of infrastructure and lab facilities for conducting research on fish processing
- Lack of technically qualified personnel to carry out research/trainings
- Unavailability of a precise vision or mission



Figure 1: Model of the dryer being developed by NARA with the assistance of NERD



Figure 2: Communication tools (Leaflets and booklets) published by NARA to disseminate knowledge on fish processing and dried fish making

Ministry of Fisheries and Aquatic Resources Development (MFARD): Development Division

The Development Division is entrusted with the duty of enhancing the standard of living of the entire fisher community, including fishers who are directly engaged in fishing and the groups involved in indirect occupations in the fisheries industry. The Division functions to supply related data and information for development proposals, identify priorities, and make funds available. The Division will also implement, coordinate, guide, evaluate and conduct progress review and follow-ups of funded development projects while shouldering the responsibility of sustainable implementation of related development proposals.

MFARD interventions in the dried fish sector

1 Organizing training and awareness programs on post-harvest activities

As the ministry lacks expert staff capable of providing training, it deploys expert personnel from NARA and universities.

2 Provision of drying decks

With the assistance of NARA, the Ministry has provided fibreglass fish drying decks with the aim of improving product quality by reducing the quantity of fish that is dried and stored directly on the ground. Currently the decks are being used by the dried fish makers in the districts of Mannar and Puttalam.

3 Provision of Maldivian fish processing units/stoves

The Ministry has sought assistance from NARA to develop the stoves.

Currently around 60 families have been provided stoves in the Tangalle area. The ministry's aim is to extend this program to other areas/districts in the island.

4 Provision of basic technical training and equipment for Maldivian fish processing

Currently, fishers in Nilwella and Kudawella areas have benefited from this intervention.

The ministry has given monetary aid and training for around 300 beneficiaries in the dried fish sector within the last year only. It aims to empower a similar number of families in the dried fish sector in the current year as well.

Challenges facing the dried fish sector (from the perspective of the Ministry of Fisheries and Aquatic Resources Development)

- Reluctance of the fishers to adopt newer technologies in place of traditional/conventional methods of dried fish making.
- Absence of a proper process to assess the quality of dried fish in the local market.



Figure 3: Drying decks provided by the Ministry