Fig. 3 ***Application of paint***

to the vessel. The total maintenance cost for a single trawler per annum is in the range of 25000 to 100000 INR. Maintenance of wheel house, deck and fish haul are done based on requirement. The annual repair work during the trawl ban period is fully dedicated for works below the waterline area of the vessel.

The boats, decorated with garlands and flags, are launched after repair with religious fervour and fanfare on an auspicious day according to the Gujarati calendar. Ladies and kids have important role in this function.

References

CMFRI (2019). Annual Report 2018-19. Central Marine Fisheries Research Institute, Kochi. 320 p

Prajith, K.K., Paradva, J.B., Pungera, H.V. (2017) Handmade wooden boats of Gujarat: Craftsmanship for the ocean, Fishtech reporter, Vol.3 No1, January-June 2017 ISSN2454-5538

Global Vision Impex (2020), Your window to the world of spice, natural gums and resins from Indonesia, Retrieved from www.gvi.co.id.

Dried fish consumption patterns in selected districts of Kerala

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Fish drying is an age old practice followed for preservation of fish. Over the years, it has grown from a subsistence occupation to a full flourishing business. There has been an enduring demand for dried fish products in Kerala. Use of dry fish in different recipes is part of the culinary heritage of Kerala. The magical Kanji (rice porridge) - dry fish chutney amalgamation is a well-known combination of the state.

Dried fish segment constitutes to 20 % of the total fish production in India (Anon, 2016). Detailed studies on dry fish consumption pattern, sources of dry fish, import into the state, common fish species dried, consumer acceptance, economics of dry fish etc. pertaining to Kerala are relatively scanty. Madan *et al.*, (2018) reported that Sardine and anchovies contribute to 50% of the total dry fish produced, in Tamil Nadu. Dry fish production was found to be a profitable business with an internal rate of returns (IRR) of 75% and simple rate of returns (SRR) of 43.48% in Tamil Nadu.

Dried fish attracts greater demand during fishing ban period or lean seasons, as the fresh fish availability is relatively low (Das et al., 2013). However, of late, there is round-the-year availability of fresh fish for consumers in Kerala with stocks coming from other states as well. Dry

fishes can be transported to areas where fishes have good market potential. They are presumably consumed more in the hilly and inland districts where the availability of fresh fish is low compared to coastal districts and expensive even if available. Dried prawns, anchovies, pony fish, ribbon fish, mackerel and shark are some of the most commonly marketed and relished dry fishes in Kerala. Dry fish has higher concentration of protein (in terms of weight) as compared to the wet weight of fish and therefore is a good source of animal protein thus contributing towards nutritional security of the population. They are widely sold in the domestic markets and commercially important dry fish species are also exported to other countries (Immaculate et al., 2013).

Considering the importance of fish as a dietary protein food, a study on dry fish consumption pattern was taken up in two coastal (Ernakulam, Kozhikode) and two non-coastal (Palakkad, Kottayam) districts of Kerala covering a sample of 399 fish consuming families. Based on the assumed prominence of dry fish in Kerala recipes, the dry fish consumption pattern of fish consuming families was measured as part of the study.

Contrary to popular assumptions, the study found that large majority of fish consumers in Kottayam (60%) and considerable share of population in Ernakulam (35%), Kozhikkode (44%) and Palakkad (48%) reported no/never consumption of dried fish. Majority of fish consumers in Ernakulam (65%), Kozhikkode (56%) and Palakkad (52%) reported consumption of dried fish in limited/ reduced frequencies. While 19 percent of respondents in Kozhikkode and 30 percent in Palakkad reported dry fish consumption once in a week, 25 percent in Ernakulam and 17 percent in Palakkad reported consumption once in a fortnight (Table 1).

Among the dry fish consumers, preference/liking for dry fish was recorded as the major reason for consumption of dry fish in Ernakulam (33%), Palakkad (33%) and Kottayam (24%)) districts while dry fish consumption due to unavailability of fresh fish during certain seasons was reported as the major reason in Kozhikode (37%) (Table 2). Drying of fish caught during recreational fishing, free access to fresh fish for drying, liking for certain dry fish recipes etc were some other reasons for dry fish consumption by few respondents.

Table 1. Pattern of dry fish consumption in study areas. (n=399)

Frequency	Ernakulam (%)	Kozhikkode (%)	Palakkad (%)	Kottayam (%)
Daily	0	0	0	0
2-3 times/week	9	8	7	0
Weekly once	13	19	14	30
Fortnightly once	25	13	17	2
Monthly once	19	16	14	8
No/Never	35	44	48	60

Table 2. Reasons for dry fish consumption (n=399)

Reasons	Ernakulam (%)	Kozhikkode (%)	Palakkad (%)	Kottayam (%)	All districts Avg. (%)
Preference/liking for dried fish	33	14	33	24	26
Unavailability of fresh fish during certain seasons	23	37	11	8	20
Other reasons	2	9	7	2	5

Table 3. Monthly family expenditure on dry fish (n=399)

Expenditure	Ernakulam (Rs)	Kozhikkode (Rs)	Palakkad (Rs)	Kottayam (Rs)	All districts (Rs)
Avg. Exp.	92	170	227	197	160
Lowest Exp. recorded	20	10	50	20	10
Highest Exp. recorded	750	500	700	600	750

Survey indicated that the average monthly family expenditure towards dry fish purchase as Rs. 160 for the districts with highest average expenditure of Rs. 227 for Palakkad and lowest of Rs. 92 for Ernakulam (Table 3). Limited purchase of dry fish in reduced quantities was recorded in all the districts studied contributing to low average monthly family expenditure towards dry fish purchase.

Dry fish consumption pattern was found to be declining with majority of the fish consumers reporting no consumption in Kottayam and reduced frequency of consumption in three other districts studied. It is reported to be attributed to the belief among consumers that dried fish contribute to lifestyle diseases and fear of the use of harmful chemicals in fish drying were the major reasons attributed for decline in consumption of dry fish by respondents.

References

Anon (2016). Retrieved online from: https://economictimes.indiatimes.com/ news/ economy/ foreign-trade/new-packing-technology-to-increase-export-of-dry-fish/ articleshow/ 50837968.cms?utm_=contentofinterest&utmmedium=text&utm_campaign=cppst

Das, M., Rohit, P., Maheswarudu, G., Dash, B. and Ramana, P. V. (2013). Overview of dry fish landings and trade at Visakhapatnam Fishing Harbour. Mar. Fish. Infor. Ser. T&E Ser., 215: 3-7.

Immaculate, K., Sinduja, P., Velammal, A. and Patterson, J. (2013). Quality and shelf life status of salted and sun dried fishes of Tuticorin fishing villages in different seasons. Int. Food Res. J., 20(4): 1855-1859.

Madan M. S., Kalidoss Radhakrishnan, Ranjith L., Narayanakumar R., Aswathy N. and Kanthan K.P. (2018). Economics and marketing of dry fish production in Thoothukudi District, Tamil Nadu, India. Indian J. Fish., 65(4): 135-141.

Design and Development of Customized Database on Fish Import to India

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A customized database on fish import to India in terms of quantity and price under different harmonized system (HS) code has been designed and developed in Microsoft Office Access (MS Access). The aim of the database is to provide customized fish import data to the user. The database design comprises of creating various database objects such as tables,