# Factors Affecting the Consumer Preference and Consumer Buying Behavior of Fish for the Household Consumption: A case of Matara and Hambanthota Districts

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## Abstract

Sri Lankans have a huge appetite for fish which provide the largest share of the requirement of animal protein by consuming both marine and fresh water fish in their diet. Consumer's preference/buying behavior for fish is greatly affected by the qualitative changes of these fish. Therefore, the key objective of this research is to investigate the factors affecting the preference/buying behavior of fish for the household consumption in Matara and Hambanthota District. Primary data were selected by pre-tested questionnaire by randomly selected 180 families living in marine fishing, inland and non fishing areas. The descriptive statistics and Chi - Square test were employed to analyze the data. The results revealed the availability of fish was significantly affected to the consumer buying behavior of fish. Majority of consumers in coastal areas preferred marine fish due to high availability and absence of inherent smell while freshwater were preferred by majority of consumers in inland fishing areas. In non fishing areas, consumers are preferred marine fish due to taste and absence of inherent smell, but considerable amount of consumers preferred fresh water fish due to taste and nutritional value. It was suggested to enhance the fish consumption by reducing the price of fish, improving the income level of people and increasing the availability of fish. Further, fish consumption was not in satisfactory level, thus there is a high potential to enhance the fish consumption.

**Key words:** consumer, Consumer buying behavior, Consumer preference, Fish

## Introduction

Fish is considered as a main and preferred source of animal protein in Sri Lanka (Wijeratne and Maldeniya, 2003). Based on Food Balance Sheets data provided by FAO, in 2007 annual per capita consumption of fish and seafood was 21.7 kilograms while per capita consumption of poultry meat, pork and eggs being 5.2 kg, 0.1 kg and 2.2 kg respectively. In line with FAO statistics, when compared to other animal protein sources, fish is the most prominent source of protein among Sri Lankans. Fish can be largely categorized in to two broad groups as marine fish and inland fish. People in Sri Lanka consume large number of marine fish species such as herrings, yellow fin, sprat etc. Although, the most of fish requirement is supplied from marine fish, inland fish production also exists in considerable level. Consumer preference for marine fish and inland fish differs from each other which lead to make differences of fish consumption pattern among consumers. Knowing that that consumption of fish is a profitable way to increase the protein intake of people, little attention have been paid to study the consumer preference for fish in view of the increasing the fish consumption in Sri-Lanka. Most of the relevant studies in examining the food / seafood consumption behavior based on the context of either European or American countries. A little work had been done in the context of Asia as well as other developing countries (Tuu *et al.,* 2008). Therefore this study was carried out with the main objective of exploring the house hold fish consumption pattern in coastal, inland and non-fishing areas in Matara and Hambanthota district. Result of the study helped to identify the factors affecting buying behavior of fish for household consumption and thereby made suggestions for increasing the fish consumption.

## Materials and Methods

Matara and Hambanthota districts were selected as study locations in this study. According to the availability of fish type, the research area was divided into three categories as coastal, inland and non fishing area. Three areas (from two districts) were selected for each of these categories. Tudawa and Beliwatta areas were selected as coastal fishing areas as they are situated closer to sea. Lunugamwehera and

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Weeraketiya udukriwila were selected as inland reservoir areas due to high amount of inland fish supply and comparatively situated away from sea. Deniyaya and Pallegama were selected as non fishing areas as they are weakly access to both fishing sources of marine and inland reservoirs. Randomly selected 30 families were taken each area and total sample was comprised of 180 families. Primary data was collected by pre-tested questionnaire to elicit the information regarding consumer preference for fish types, factors affecting buying behavior of fish, consumer satisfaction on fish consumption, their suggestions to improve the consumption of fish and to explore the relationship of socio economic status and fish consumption pattern. In addition, articles and past research articles collected from National Aquatic Resources Research and Development Agency (NARA) and Central bank reports used to obtain secondary information related to methodology. The descriptive statistics such as mean, percentages and Chi square test were employed to analyze the data.

## Results and Discussion

Consumer preference for various fish types studied in Costal, Inland fishing and non fishing areas in Matara and Hambanthota areas revealed that it differs according to areas. 93.33% of consumers buy marine fish in coastal areas while 73.3% of consumers buy inland fish in inland fishing areas. However, in non fishing areas consumers (66. %) prefer to buy marine fish. The results showed that availability of fish type has a relationship with consumers preference as calculated $\chi2$ value (29.1) is higher than the tabulated $\chi2$ value (5.9) at p=0.05. Therefore consumers buy fish which is most available than unavailable in their area.

In coastal areas, Skipjack and Yellow fin were the most popular fish species consuming 40% and 10% of consumers respectively, but in the inland fishing areas, 73.3% consumers prefer to eat Tilapiya. People in non fishing area do not show special preference for any specified fish species as they have to eat whatever available in the market. In general, 37.8 % consumers were willing to eat Tilapia which was followed by skipjack (25.6%) and Yellow fin (11.1%). Factors affecting for consumers preference for inland fish were studied and found that most of consumers prefer inland

fish over marine fish due to availability (26.5%), taste (26.5%) and perceptions about nutritious value (14.7%) over marine fish in inland fishing areas. In contrast, consumers from coastal areas prefer marine fish due to no inherent smell as inland fish (50%) and the availability (46.4%) over inland fish.

Actual consumption of various fish species within a month was obtained from the survey families to study the popularity of each species. In the coastal area, Skipjack (27%), big-eyed scad(18%), herrings(12%) and yellow fin(11%) were the most consumed fish species. Tilapiya (39.4%) was the most consumed species in inland fishing areas while herrings (13.4%) and Klawenna (11%) had considerable consumed amount. Herrings (18.6%) big-eyed scad(15.1%) Skipjack (14%) and Klawenna (11.6%) were most consumed species in non fishing areas.

The surveyed consumers were asked about their satisfaction on amount of fish consumption. It is showed that there was a relationship between fishing area and the satisfaction of fish consumption (p=0.05). The number of satisfied families in coastal areas (63.33%) and inland fishing areas (56.7%) were higher than non fishing areas (33.0%). Therefore it was clear that dissatisfaction fish consumption level of non fishing area was higher than other areas. Main reasons for dissatisfaction were unavailability, high prices of fish and lack of purchasing power, but higher price was prominent in coastal and inland fishing areas while unavailability was main contributor for non fishing areas. Major suggestions for improve the satisfaction of fish consumption in coastal areas are setting reasonable fish price for consumers and upgrading the income level of the community. In addition to this, readily supply of fish from fishing areas to meet the requirement was suggested to both inland fishing and non fishing areas.

Families in coastal areas (73.3%) and inland fishing areas (70%) have sufficiently obtained their preferred fish species, but in non fishing areas only 23.3% of consumers obtained the preferred fish species. When consider the whole area surveyed, most of consumers achieved their preferred fish species. Fish requirement of coastal areas (98.5%) and non fishing

areas (90.7%) is being supplied by marine fish, but in inland fishing areas it is slightly dominated by inland fish supply (53.67%).However, being considering the total fish consumption in all areas, marine fish (80.7%) supplies most of the consumer's requirement.

The relationship between family income level and fish consumption was non significant as calculated $\chi^2$ value (1.6729) is lower than the tabulated $\chi2$ value (5.99). It means that in every income level of consumers consume fish regardless of their family income. It was also showed that there is no significant relationship between educational level and fish consumption as calculated $\chi2$ value (1.5048) is lower than the tabulated $\chi^2$ value (7.8).

In conclusion, majority of people prefer to buy/consume marine fish over fresh water fish. However the preference for fish type varies considerably with the area accordance with. Skipjack. Yellow fin and Tilapiya are the most preferred fish species among various fish types. In addition to the availability, the main reason for preference of marine fish is absence of inherent smell and taste while people prefer fresh fish due to taste and low heat. There was a relationship between fishing area and the satisfaction of fish consumption. It was clear that dissatisfaction fish consumption level of non fishing area was higher than

other areas. Major suggestions for improve the satisfaction of fish consumption are setting reasonable fish price for consumers, readily supply of fish from fishing areas to meet the requirement and upgrading the income level of the community. Being considering the total fish consumption in all areas, marine fish supplies most of the consumer's fish requirement. In general, most of families are capable of consuming preferred fish species except the consumer's from non-fishing areas. Consumer's buying behavior for fish consumption does not vary with their income and educational level.

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