

CHOICE OF FISHES FOR CONSUMPTION BY THE RURAL PEOPLE OF BANGLADESH

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ABSTRACT

This study was conducted in Badalgachi upazila (sub-district) of Naogaon district to reveal the present status of fish consumption by the rural people, from June 2012 to November 2012. A total of 41 rural households were surveyed. Maximum 85.40% respondents preferred fishes rather than meat as an animal protein source and silver carp was found as the most commonly consumed fish, consumed by 41.5% households (HHs). HHs in the studied areas did not give priority on nutrient content of fishes. Majority 65.85% HHs purchased and consumed those fishes which were cheap. Only 4.88% HHs members purchased fishes keeping nutritional content on their mind. Rate of fish consumption was found too poor. The HHs consumed fish only in 2.80 ± 1.81 days in a week. Average amount of fishes consumed in a HH was 1012.20 ± 399.03 g/week and per head fish consumption was 37.05 g/day. Hilsa was consumed frequently in 41.46% HHs in past, but now it became a rare item in their diet. Respondents have mentioned unavailability of non-cultured fishes at present which indirectly indicating the loss of fish diversity and abundance in water bodies nearby.

KEY WORDS: Fish consumption, rural people, rural livelihood, rural Bangladesh, SIS, and animal protein

INTRODUCTION

The fish is traditionally being a staple in Bangladeshi diet and major source of animal protein to the people of Bangladesh contributing almost 60% of the total animal protein supply (DoF, 2012). Poor people in developing countries like Bangladesh tend to depend essentially on carbohydrate-based diets for their nutritional intake which are relatively low in protein and micronutrients (Kawarazuka and Bene, 2010). Majority (80%) people of Bangladesh are live in rural areas and fishes are considered the only source of animal protein to them (Hossain *et al.*, 2002 and Amin *et al.*, 2009). The livelihood of the people of rural areas is based on agriculture mainly and their choice of foods is very much related to their profession *i.e.* source of income. Retail price of fishes became high at present times, especially those are harvested from natural water bodies like rivers, floodplains etc. on which the rural people were dependent mostly. But culture based fisheries occupying the major part of fish supply to the people of Bangladesh in recent times replacing the captured based fisheries in inland open waters (DoF, 2012). These reasons can adversely affect the health of rural people. So there is a need felt by the authors to assess the present situation of rural people focusing the issues associated with fish consumption. To the best knowledge of the authors there is no research conducted on fish consumption by the rural people in Bangladesh. Thus the present study was conducted to reveal the status of rural people in terms of fish consumption and the findings of this research would be helpful for commencing further research efforts on related issues.

MATERIALS AND METHODS

A. Study area and duration: The present study was conducted in rural villages belonging to Badalgachi and Balubhara unions of Badalgachi Upazila in Naogaon district, situated in the northern part of Bangladesh (Fig. 1). The study areas were selected in such a way that they represent rural Bangladesh. This study duration was six (6) months, from June to November, 2012.

B. Sampling framework: A total of forty one (41) households (HHs) were surveyed. Households were selected randomly and respondents were interviewed with a selected questionnaire. The questionnaire was developed, pre-tested in field situation and necessary modifications were made prior to final data collection. Focus group discussions (FGDs) were also conducted to find out the common issues like existing problems.

C. Data analyses: All the collected data were tabulated and subjected to descriptive analyses using the computer software SPSS (Statistical Package for Social Sciences, version 15.00) and Microsoft Office Excel 2007 to understand the differences of the variables.

RESULTS AND DISCUSSION

General profile of the respondents and their HHs: The average age (\pm SD) of the respondents was 37.02 ± 9.89 (25-60) years and all the respondents were male. Average HH member was found 3.90 ± 1.66 with the minimum and maximum of 2 and 9 respectively. Among the HH members, 22.5% were children (below 18 years of age). Major profession of the respondents was agriculture (78.05%) followed by service (14.63%), small business (4.88%) and daily

labor (2.44%). 63.41% HH had weekly savings at BDT 167.31±159.59 with a minimum of BDT 20.00 and maximum of BDT 500. Almost all the respondents (97.54%) were Muslims and the remaining were Hindus (2.44%).

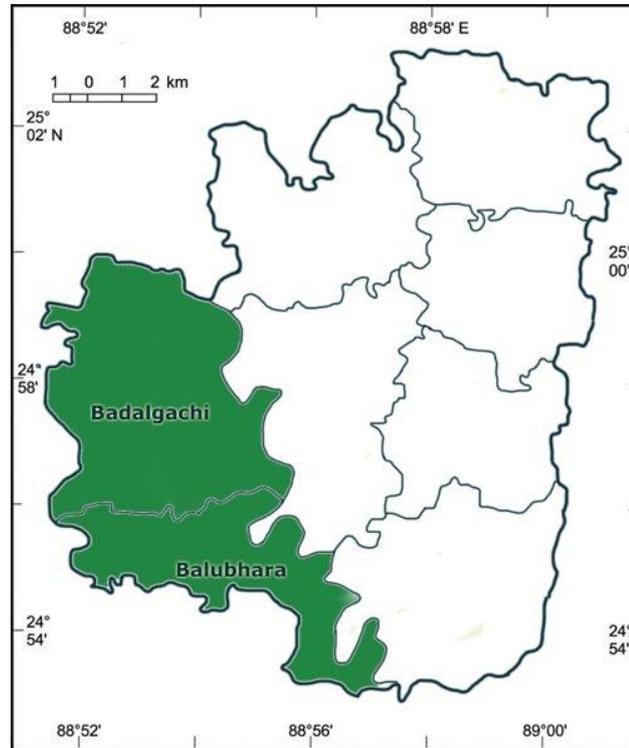


Fig. 1: Map of Badalgachi sub-district including study areas.

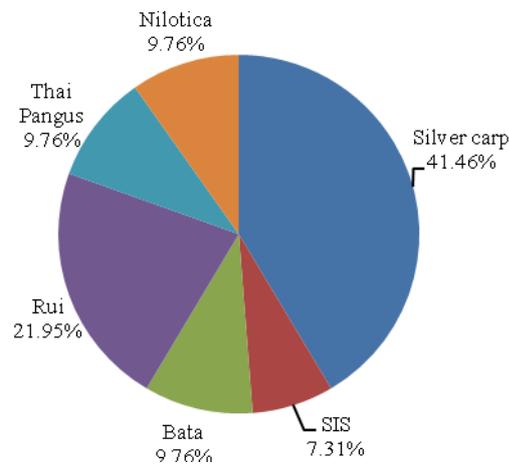


Fig. 2: Consumed fishes by the HHs.

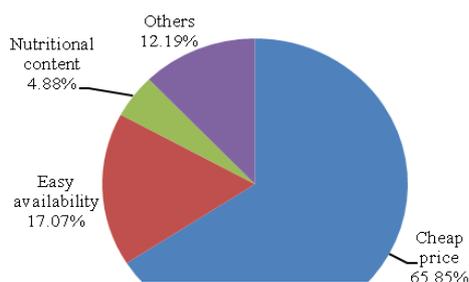


Fig. 3: Reasons for purchasing fishes.

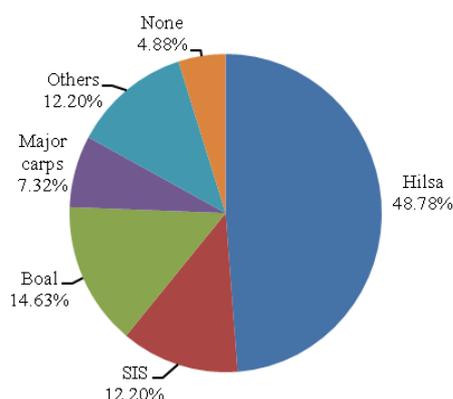


Fig. 4: Fishes preferred most by the respondents.

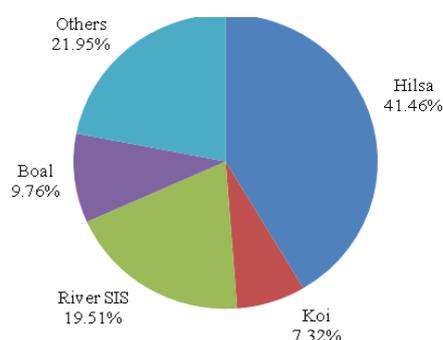


Fig. 5: Fishes that rural people used to eat frequently in past but seldom consume at present

Choice of fish as protein source: Maximum 85.40% respondents prefer fishes rather than meat as an animal protein source, remaining prefers meat (mainly broiler chicken). Silver carp (*Hypophthalmichthys molitrix*) was found as the most commonly consumed fish in the study areas consumed by 41.5% HHs. Next to silver carp, rohu (*Labeo rohita*) was consumed by 22.00% HHs (Fig. 2). HHs in the studied areas did not give priority on nutrient content of fishes. Majority 65.85% HHs purchased and consumed those fishes which were cheap like silver carp and bighead carp, aquaculture based productions. Similar results also reported by Hossain *et al.* (1994). Only 4.88% HHs members purchased small indigenous species (SIS) of fishes keeping nutritional content on their mind (Fig. 3). This may pose a serious threat to the health of rural people. Because SIS are the only source of protein and most of the fat soluble vitamins for the rural people of Bangladesh (Hossain *et al.*, 2002; Amin *et al.*, 2009).

Fish consumption rate: Rate of fish consumption was found too poor. The surveyed HHs consumed fish only in 2.80 ± 1.81 (1-6) days in a week. Fish was consumed in all the HHs and the average amount of fishes consumed in a HH was 1012.20 ± 399.03 g/week (250-2000 g/week). Per head fish consumption was found 37.05 g/day which was much lower than that of the national per capita fish intake (51.89 g/day) (DoF, 2012). Whereas, the per capita demand of fish is 56.00 g/day (DoF, 2012). This result clearly indicating that the rural people are far behind from urban people of the country in terms of fish consumption and thus make them more susceptible to nutritional disorders. This may severely affects women, especially pregnant one, and children (Kawarazuka and Bene, 2010; Roos *et al.*, 2003).

Desired/preferred fishes- past and present: Maximum 48.78% respondents wished to have hilsa (*Tenussosla ilisha*) reflecting the choice of Bengali people because this fish the national fish of Bangladesh and closely associated to the culture, tradition and honor of the country (DoF, 2011). Next to hilsa, boal (*Wallago attu*) (14.63%) and small indigenous species (SIS) (12.20%) ranked second and third respectively (Figure 4). Small number of respondents (4.88%) did not prefer any fish to eat (Fig. 4). Hilsa was consumed frequently in 41.46% HHs in past now it became rare in their diet. Next to hilsa, SIS caught from rivers, boal and native climbing perch were also on the list and mentioned by 19.51%, 9.76% and 7.32% respondents respectively (Fig. 5). All these fishes were not the aquaculture species and harvested in natural water bodies. However, the respondents have also mentioned that availability of these fishes became rare at present which indirectly indicating the loss of fish diversity and abundance in water bodies nearby. Loss of fishes in natural waters due to degradation of natural habitats, excess exploitation, use of illegal fishing gears, expansion of aquaculture into natural waters etc. was reported by Amin *et al.* (2008), Byomkesh *et al.* (2009), Mohsin *et al.* (2009) and Galib *et al.* (2009,2010).

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