



Nourishing Bangladesh with micronutrient-rich small fish



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Summary

Increasing the quantity and frequency of small fish consumption can boost nutrition, health and well-being of the people of Bangladesh. Small fish are rich in micronutrients, particularly vitamin A, iron, zinc and calcium, as well as animal protein and essential fats. Small fish are highly nutritious as they are usually consumed whole.

Pregnant and lactating women and young children from the age of 6 months to two years should consume small fish as they promote healthy growth and development in children and can lead to better performance at school, and at work later in life. Policies should be formulated and implemented to encourage the consumption of small fish to help Bangladesh become a smart, strong, and healthy nation.

Background

More than 20 million people in Bangladesh, particularly women and young children, suffer from chronic deficiencies of vitamin A, iron, calcium, and zinc. These vitamins and minerals are called micronutrients, and are essential for good nutrition and health.

When children do not have enough micronutrients in their daily diet, they become malnourished, their growth is stunted, and they do not develop normally. Lack of micronutrients hampers their brain development and cognition, making it difficult for them to learn at school and perform at work later in life. This kind of damage is irreversible, but it can be prevented by eating micronutrient-rich foods, such as small fish, other animal-source foods, vegetables, and fruits.

Due to limited income, poor access to micronutrient-rich foods, traditional food habits, and culture, many poor households in Bangladesh consume a diet that consists mainly of rice. While rice provides energy, it does not provide adequate micronutrients.

Benefits of small fish

Micronutrient-rich small fish such as mola (*Amblypharyngodon mola*), darkina (*Esomus danricus*) and dhela (*Ostreobrama cotio cotio*) have the potential to meet the nutritional needs of the Bangladeshi people. Small fish eaten whole (i.e. with heads, organs and bones) contain large amounts of many vitamins and minerals that are highly bioavailable. Eating small fish also enhances the absorption of micronutrients from other foods in the meal.

Small fish are common in the traditional Bangladeshi diet but they are not eaten in sufficient quantities or frequently enough, particularly by women who are pregnant and lactating, and young children aged from 6 months to two years. Small fish can be purchased in small quantities and are relatively affordable and accessible for the rural poor.

Fish in the first 1,000 days of life

The nutritional and health status of a woman are important for giving birth to a healthy child and therefore girls and women must eat micronutrient-rich foods. The first 1,000 days of a child's life, from conception to two years of age, is a crucial time for growth and development.

The child's nutrition and health depend on the woman's diet being rich in micronutrients during pregnancy and lactation. Breastfeeding must be complemented with nutritious foods when a child is six months old. Micronutrient-rich small fish must be added to young children's diets to ensure that they grow up to be smart, healthy, and strong.

Preparation and consumption of small fish

Cooked small fish can be ground into a smooth paste and added to child-friendly meals of rice and vegetables. Ground, cooked fish added to the popular dish, *khichuri* (rice, lentils and vegetables), is a delicious meal, easy for young children to eat, and high in micronutrients.

Small fish are popular in the Bangladeshi diet and are cooked in a curry with vegetables. Small fish, fresh or dried are also made into *bhortas* (cooked and mashed foods), and eaten with rice and vegetables. Dried fish can also be made into a chutney by adding spices and oil. These fish dishes are tasty, well liked

and rich in micronutrients. Dishes and chutneys made with dried small fish can be enjoyed at all times of the year, and throughout Bangladesh.

Policy recommendations

Policies should be formulated and implemented to encourage the consumption of small fish to help Bangladesh become a smart, strong and healthy nation.

- The Ministries of Fisheries and Livestock, Health and Family Welfare, Food and Disaster Management, and Education should promote awareness about the value of the consumption of micronutrient-rich small fish by pregnant and lactating women and young children. Knowledge and information about the nutritional value of small fish, and how best to include them in diets should be widely disseminated to fisheries extension officers, health care providers, educators, and others.
- The Ministries of Health and Family Welfare, Food and Disaster Management, and Education should include small fish and small fish products for women and young children in food safety net programs, and for children in school feeding programs.
- The Ministries of Fisheries and Livestock, Health and Family Welfare, Food and Disaster Management, and Education should provide financial support for research by national research institutions and universities to identify micronutrient-rich small fish species suitable for increased production and consumption. Research on the development and use of fish products for women and young children should also be promoted.

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