**Nutrition education as a strategy to strengthen family farming households and improve people's diets[[1]](#footnote-1)**

1. **What are the existing national and regional programs which aim to improve the dietary quality and dietary diversity of farming families?**

There is now increasing attention to improve diets and nutrition through agriculture. Doubling per capita agricultural income is associated with approximately 15 – 21% decline in stunting on average and increasing small scale production of nutrient dense foods. To this end nutrition education enhances potential consumer demand and impacts on nutrition. Joint government and research initiatives, UN technically supported and FtF programmes and several others are ongoing in Asian countries including Bangladesh. The CGIAR research programme, LANSA, SAFANSI, MDGF, IAHBI and SPRING are some examples of nutrition sensitive interventions that incorporate nutrition education as one the key programme components.

1. *What educational and communication strategies have been used in these programs?*

The farmer field school (FFS) learning process is being used to target resource poor households with pregnant and lactating women and children under the age of two for enhancing access to diversified nutrient rich vegetables, fish and poultry. Poultry rearing is harnessed for its important nutritional value to the household diet and its potential as an income generating activity for women. SPRING field facilitators ensure appropriate vegetable, poultry and fish production practices are adopted and link agricultural topics to household food consumption, intra-household food distribution and appropriate household dietary diversity, particularly for women and children. FFS participants are supported to breed poultry and fish and to grow up to five nutritious vegetables and fruits per planting season. FFS incorporate key messages on essential nutrition and hygiene actions into all vegetable, fish and poultry production activities. FFS are designed to respond to the needs of farmers and towards encouraging creativity and independence.

School feeding and nutrition gardens are another strategy that is being used. National statistics in Bangladesh show that less than 65 percent of the approximately 20 million children of primary school age attend school and around 40 percent are hungry during their lessons. The Ministry of Primary and Mass Education is implementing a pilot programme to improve the school attendance and nutrition of children 5 to 11 years from vulnerable families in approximately 45 schools in the Dhaka and nearby peri urban districts. Central kitchen models are operational and are being considered for replication to other districts. Following up on previous efforts supported by FAO in the Department of Agricultural Extension, integrated initiatives on school gardening coupled with nutrition education and food supplements have also been supported by a joint UN MDGf Programme in selected districts in the Southern region. Results show that nutrition knowledge among rural school students improved from 47.2% at baseline to 75% at the end of the programme with 120 schools each having established a school garden.

1. *What main constraints and best practices have been identified?*

Home gardening needs enhanced resilience to land degradation, water scarcity, bio-security (especially avian flu), and climate change, particularly in high risk areas, such as in the Southern region. National surveillance estimates show that 56% of households have only home gardens, 62% have backyard poultry but 42% of households with homestead gardens also have backyard poultry. Usually controlled by women, income from the home gardens is more likely to be used for education, health care and other expenses directly benefitting women and children.

National level analysis and monitoring in Bangladesh shows that support for homestead gardening, rearing small livestock, aquaculture and awareness creation is underfunded due to the fact homestead gardening is often covered as a component under larger agriculture or livelihood projects. Also required are low cost technologies for production, management, conservation and accessibility of nutrient rich fish along with nutrition education efforts to enhance fish intake in the diets of young children.

1. *What other strategies have potential?*

Support for increasing the production of small fish and promoting its consumption needs scaling up. Innovative farmer techniques to improve productivity, efficiency and efficacy of the food production/household farming base should be systematically investigated. Appropriate choice of species including plant and animal biodiversity to diversify the nutrition base in the garden and traditional resource use are potential areas that need to be strengthened for sustainable diets.

**2. How can nutrition education increase the demand for local family farming produce with high nutritional value, and thus contribute to improving dietary diversity and to protecting traditional foods and the local food culture?**

*a. What are the existing programs in the region in this respect?*

Behaviour change communication (BCC) programmes have been in operation in the Asian region. Such programmes are intended to promote positive nutrition outcomes based on proven theories and models of behaviour change. In Bangladesh one of the key points of emphasis in BCC is empowering communities and complementing existing nutrition systems and services and notably health and nutrition education has been going on as a health promotion and protection intervention since several decades with its networks extended up to the grass root level.

 Few programmes and interventions exist that have mainstreamed nutrition beyond the health secto**r. T**here is an urgent need for health and nutrition forums to go beyond technical nutrition discussions and be open to other sectors, such as agriculture. Extensive homestead gardening, fish, poultry and cattle farming which address access issues to nutritious local foods, should be encouraged to ensure an adequate supply of protein, calcium, iron, vitamin A, vitamin C as well other essential nutrients. There is need for promoting the availability and utilization of nutritious, diversified foods through better technologies and sustainable livelihood opportunities, reducing work load of rural women, and promoting better knowledge and behavior on nutrition, especially with regards to infant and young child feeding. Integrated agriculture and household farming interventions need to be increased to sustainably contribute to improve dietary diversity and nutritional status.

*b. What main constraints and best practices can you identify?*

Main constraints are inadequate systems and capacities of nutrition interventions. There is need for strengthening the systems and capacities of the not only health sectors but also agriculture, fisheries and livestock and education to ensure that direct nutrition interventions and nutrition sensitive interventions can be adequately planned, implemented and monitored for impact on nutrition status. This calls for continued training to ensure that frontline workers and agriculture extension workers have the knowledge, skills and tools to support nutrition in their sectors. Also training should be provided on mainstreaming nutrition into programme formulation and in extension practices.

Some best practices identified in some small scale ongoing programmes include use of food based nutrition education and training tools, materials, manuals, festoons, and bill boards by non health sectors as part of capacity building and extension activities including sub national level training of trainers, FFS and women famer groups’ training with a view to strengthening nutrition activities in livestock, fisheries and agriculture sectors. Innovative recipes, food preparations and cooking demonstrations and nutrition extension materials have been developed and are being promoted focusing on nutrition for the first 1000 days of life. This is showing improvement with greater women farmer’s participation and improvement in household diets and that of young children in the areas being covered by the programmes.

*c. What other strategies have potential?*

At the policy level, dietary guidelines and national food composition tables need to be explicitly used for planning and providing a nutrition orientation across multiple sectors aiming at mainstreaming nutrition in agriculture, food and health planning. A policy strategy that is showing potential is the Bangladesh Country Investment Plan for Agriculture, Food and Nutrition (2011 -2016). It is a country- led plan and process that supports increased effective public investment to increase and diversify food availability in a sustainable manner and improve access to food and nutrition security of the poor and malnourished. To this end, it has mainstreamed nutrition components, activities and indicators throughout the plan in an integrated way so as to impact delivery on nutrition outcomes.

Bangladesh team as below:

Lalita Bhattacharjee, Senior Nutritionist, FAO

Abdul Mannan, National Nutrition Advisor, FAO

Mostafa Banna, Associate Research Director, Food Planning and Monitoring Unit, Ministry of Food

Aklima Parvin, National Nutrition Expert, Integrated Agriculture and Health Based Interventions, FAO

1. Response prepared by Lalita Bhattacharjee, Senior Nutritionist, National Food Policy Capacity Strengthening Programme, FAO [↑](#footnote-ref-1)