



Nutrition & REOPA Project

Information Brief Paper

UNDP – Bangladesh

1. Introduction

Bangladesh has one of the highest malnutrition rates among women and children in the world. Malnutrition has serious implication for the productivity as well as overall development of the country because micronutrients are essential for growth, protection from infections, cognitive function and for performing physical work. *“...Undernutrition contributes to dysfunctional societies with individuals too weak, too vulnerable to disease, and too lacking in physical energy to carry out the extraordinarily laborious tasks of escaping the poverty trap. Malnutrition and hunger feed directly into ill health and poverty....”* Source: Sachs Jeffrey D. Excerpt “Economics and Nutrition: How do they intersect?” SCN news #28 - July 2004.

2. What is Nutrition?

Nutrition is the notion of ‘diet’ as different from single food intake – it is an integrated concept of ecological, economic, social, cultural and nutritional requirements. It is therefore, an indicator of economic and social equality and as such extends the common definition of nutrition to a wider context of poverty alleviation, employment generation and elimination of gender inequalities.

Box 1: Malnutrition is a broad term commonly used as an alternative to undernutrition but technically it also refers to over-nutrition. People are malnourished if their diet does not provide adequate calories and protein for growth and maintenance or they are unable to fully utilize the food they eat due to illness (undernutrition). They are also malnourished if they consume too many calories (over-nutrition).

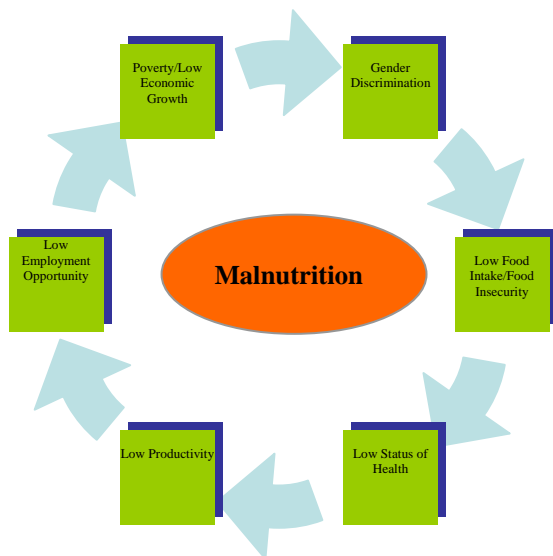
www.unicef.org/progressforchildren/2006n4/malnutritiondefinition.html

Box 2: Information about Nutrition Status in Bangladesh

- **Availability of food energy in Bangladesh** is 1899 kilocalories per day, but for poor people it ranges from 1118 to 2102, with an average of 1333.
- **Malnutrition** is 48% of all children under the age of five being underweight and 43% having stunted growth (Bangladesh Demographic Health Survey 2004).
- Among rural women of reproductive age (WRA), 45% have critical **food insecurity** with a Body Mass Index (BMI) of less than 18.5. In turn, as many as 40% newborns have low birth weight which affects their health and survival chances.
- Inadequate dietary intakes of both children and adults also cause **iron deficiency anaemia**, which is seen in 50% of all children under the age of five years, 33% of adolescents and WRAs, and 51% of pregnant women.
- **Maternal Mortality Rate (MMR)** is 320 per 100,000 live births.
- **Infant Mortality Rate** is 65 per 1000.
- **Immunization against 6 diseases:** 69% coverage.
- **Under 5 Mortality Rate** is 88 per 1000 (Source: Bangladesh Maternal Mortality Survey 2001).

3. Linkage between nutrition, poverty alleviation, employment generation and gender

A major contributory factor in nutritional status is gender and poverty as poor nutrition is more prevalent among the poor and especially among poor women and young girls. In this context the relationship between nutritional intake, poverty alleviation and gender inequality is critical in designing effective interventions that would address these issues in a comprehensive way. This has a direct bearing on the fundamental asset of human capital which through productive employment can result in creased income that would ensure intake of nutrients adequate on a sustained basis for the rural poor. The linkage is illustrated in the diagram.

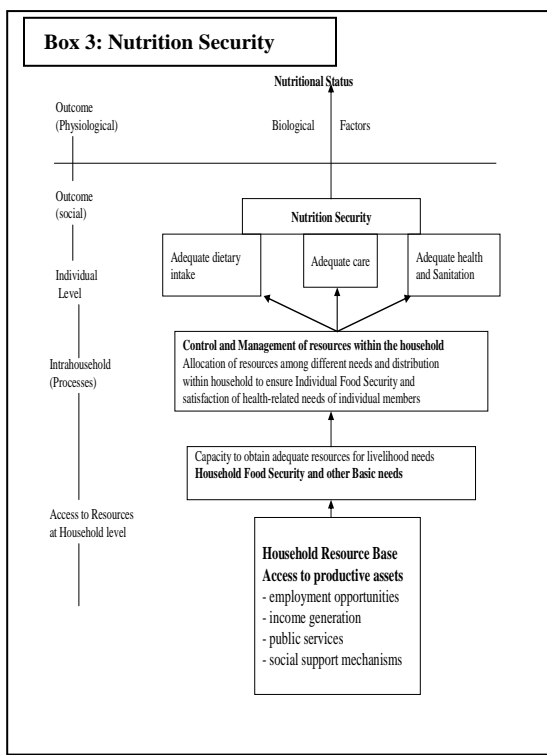


Women have a long glorious history and play a great role in attaining household food security such as providing food, health and care to their families, cooking and distributing the food for the family to eat, processing and storing the food, supplementing the family diet with fruits and vegetables grown in small gardens, collecting firewood and carrying water, finding ways to feed the family when supplies run low. However, these roles are determined by their socio-economic status and the norms that govern women’s participation in decision making. An important intervention related to an increase of nutritional intake by rural households is to empower rural women so that they are well-informed with better access to resources to enhance their nutritional level.

4. Linkage between nutrition and household food security

Food insecurity at household level is one of the most important causes of malnutrition. Household food security depends on having financial, physical and social access as availability and stable, that means “----*food availability at the national and regional level and stable and sustainable access at the local level were both considered essential to household food security*” (Source: *The household livelihood security concept*, TR Frankenberger and M.K. McCaston, CARE, USA 1998.) For many years the focus has been on food shortage and poverty as the main cause of malnutrition. Nowadays the focus is more on basic causes related to **resources** including human, economic and organizational, **control** of resources including patterns of relationships and capacities to act, and **uses**. This is the path from Food Security to Nutrition Security. See Box 3 (Source: *Frankenberger et al, 1993, mentioned as “Measuring Nutritional Dimensions of Food Security” Saul S. Morris, International Food Policy Research Institute, USA, March 1999*)

Food Security:
The availability of, access to and consumption of adequate quantities of safe good quality nutritious food is an important factor influencing nutritional status. Nutritional well-being is influenced by the nutrient content of food consumed and its absorption by the body, in relation to other requirements determined by age, sex, level of physical activity and health status, as well as the efficiency of nutrient utilization by the body. Source: FAO-2007, “Nutritional Status and Food Security” notes.



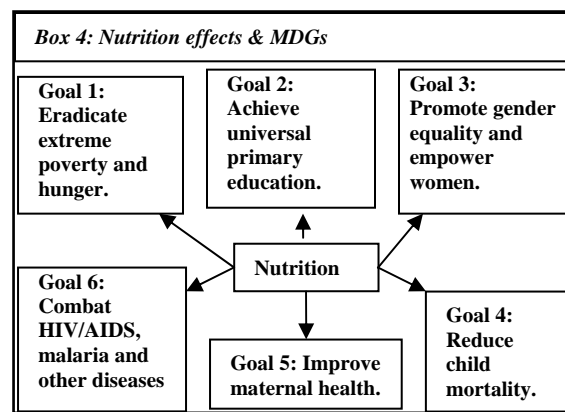
5. Millennium Development Goals (MDGs) and Nutrition effects

Nutrition is an important input for reaching the Millennium Development Goals (MDGs). Nutritional status is now a key MDG indicator of poverty and hunger and directly contributes to health and education MDGs and improved nutritional status leads to a focus on gender equity, reduces the risk of child mortality, improves maternal health, and improves ability to combat disease (See Box 4, *MDGs and Nutrition effects*).

6. Nutrition in the context of REOPA

REOPA Project’s overall aim is to contribute to sustainable socio-economic development of rural Bangladesh. This is proposed to be achieved by alleviating poverty in the rural areas and mainstreaming women into development programs. In this context, REOPA Project aims to address some of the major primary health and nutrition related issues through its interventions which would contribute to the achievement of MDGs especially for reducing infant mortality (MDG #4) and improving maternal health (MDG #5).

Box 5:
“When women are healthy, educated and free to take the opportunities life affords them, children thrive and countries flourish, reaping a double dividend for women and children. As study after study has taught us, there is no tool for development more effective than the empowerment of women. No other policy is as likely to raise economic productivity or to reduce child and maternal mortality. No other policy is as sure to improve nutrition and promote health, including the prevention of HIV/AIDS. No other policy is as powerful in increasing the chances of education for the next generation.”
Kofi Annan, source: News and Events, “Investing in women” March-07, ICDDR,B



The Road Maintenance Component (RMC), which is the primary focus of REOPA Project, comprises the maintenance of rural roads which is providing empowerment to over 23000 poor rural women in the age group of 18 to 45 years. This component will also provide life skills development training program including

health, nutrition, water & sanitation and maternal health care for improving the socio-economic living conditions of the target groups by involving them in income generating activities (**cow, goat, poultry rearing, cattle fattening, food processing, and vegetable cultivation**). The second component of the Project provides employment for casual labourers (poor women and men) during lean months or crisis situations by engaging them in the creation, rehabilitation and maintenance of public assets (**schools, dispensaries, latrines, markets, irrigation systems, waste management, tree plantation, community fish culture**). The third component of the Project is Basic Services (**veterinary and agricultural, etc.**) delivery that would enhance the income-generating capacity of rural women, men and youth through the introduction of demand driven inputs.

Box 6: We need food for

- Energy to live, move and survive
- Grow and repair damaged cells and tissues in our body
- Keep warm
- Prevent diseases

For good health food is divided into three types:

- **Energy Producing Food:** Rice, bread, cereals, wheat-flour, sugar, noodles, oil and butter
- **Growth Generating Food:** Meat, fish, poultry, eggs, nuts, milk
- **Disease Preventive Food:** Vegetables and fruits

Source: "Nutrition Education for RMA"-2004, Rural Maintenance Programme, CARE Bangladesh.

7. How to increase nutritional intake?

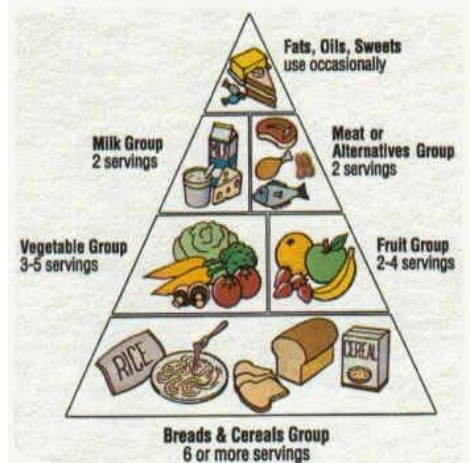
Nutrition is the process which we get from all the food we eat and supplements for health, growth and energy, simply it helps our bodies work. Food is made up of different types and the proportion of nutrients that make our food nutritious and well balanced. These nutrients include carbohydrates, fats, proteins, vitamins & minerals and water. The table below illustrates some of the major nutrients necessary for human beings to remain healthy.

Nutrient	Type of food	Why we need it
Carbohydrates	As starch in cereals (potatoes, bread, pasta, rice). As sugar in sweet foods and drinks (chocolate, soft drinks etc.)	For energy. Most of our carbohydrate should be in the form of starch, not as sugar.
Proteins	Meat, fish, nuts, lentils, poultry, eggs	For growing and repairing our tissues. Children who receive too little protein may grow too slowly or suffer from a condition called kwashiorkor.
Fats	Meat, cakes, fried foods, fast food	For warmth and for energy. Too much fat in our diet leads to severe health problems including heart attacks.
Vitamins & minerals	Lots of foods but especially fruit and vegetables	Adequate intakes of vitamins and minerals are important for health, and there is growing evidence that a number of bioactive plant substances found in fruit and vegetables are also important in promoting good health. A lack of some vitamins may lead to particular illnesses; e.g. lack of Vitamin A causes night blindness (<i>See Box 7, From where one gets Vitamin A</i>), lack of Vitamin C (from oranges, limes etc.) leads to a condition called scurvy . Not having enough iron (a mineral) in the diet leads to anaemia .
Water	Water, or fruit juice / low sugar squash	You also need a lot of water – remember, about 75% of your body is made of water. It is recommended that you drink about 4 pints of water (or fruit juice / low sugar squash) every day

Source: modified from www.sciencepages.co.uk/.../foodpyramid.jpg

Box 8: Food Pyramid

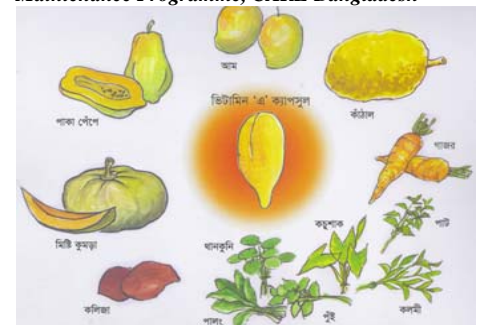
Source: www.sciencepages.co.uk/.../foodpyramid.jpg



There is no single food which contains all the essential nutrients that the body needs to be healthy and function efficiently. The nutritional value of a person's diet depends on the overall mixture or balance of foods that is eaten over a period of time. That is why a balanced diet (*See Box 8, Food Pyramid*) is necessary. The food pyramid shows how much of the different types of foods one should take regularly:







- Bread, other cereals and potatoes - select something from this group at every meal.

Box 7: From where one gets Vitamin A. Source: "Nutrition Education for RMA"-2004, Rural Maintenance Programme, CARE Bangladesh



- Meat, fish and alternatives - select something from this group twice per day.
- Fruit and vegetables - select five portions every day including fruit juice as possible.
- Milk and dairy products - eat one pint milk/day or equivalent in milk products.
- Food containing fats and sugar should be eaten in moderation unless one is trying to increase the energy intake.
- Drinks - 8 to 10 cups of fluid/day or as advised by doctor.

In rural poor community, there is a general feeling among women: "How will I feed my children?" "Where will we get food?" Other general comments include "somehow we manage the food, just food, this is enough for us, we never think if the food is nutritious or not" "nutritious food is for the rich people, not us", "nutritious food is costly, not manageable and affordable by the poor". To overcome some of once misconceptions it is important to mention here that balance food/ nutrients food is not costly always, is not unmanageable for the poor. Necessary knowledge including best practice (putting knowledge into practice) is required for identification and selection of food (See Box 9, Costly food vs low cost food with the same nutrients).

Costly Food		Low Cost Food
	↔	
	↔	
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Box 9: Source: "Nutrition Education for RMA"-2004, Rural Maintenance Programme. CARE Bangladesh.

8. Different initiatives to address nutritional intake

The Government of Bangladesh (GoB) and different civil society organizations have initiated a number of different interventions to address the prevalence of malnutrition (See Box 10 - Some important nutrition projects in Bangladesh). Recently, a number of programmes has been launched to address food security through the improvement of income generating activities and creating employment generation for the poor in rural areas to enable them to have a nutritious diet.

Box 10: Important Nutrition Projects in Bangladesh
<ul style="list-style-type: none"> • Bangladesh Integrated Nutrition Project (BINP) • National Nutrition Project (NNP) • Expanded Program on Immunization (EPI) • Nutritional Surveillance Project (NSP) • The National Immunization Days (NIDs) • National Vitamin A Plus Campaign (NVAC) • The Integrated Horticulture and Nutrition Development Project

9. Way Forward

Considering the above facts REOPA has determined the strategies below for addressing nutritional problems at two levels – Institution level and Programme level – in the REOPA intervention:

- Strengthening household resource base through targeted interventions: employment generation, more income, etc.
- Involve vulnerable poor in decision making regarding defining the intake of nutritious food.
- Improve the target groups' (especially women) control and management of resources (eliminating gender inequalities).

10. Proposed Action Plan

Institution Level:

a) Project Task Force (PTF)

- Develop and maintain liaison with other Projects under Local Government Division for sharing nutrition related experiences, as well as learning from best practices.

b) Capacity Strengthening Team (CST) & District Offices

- Develop and disseminate nutrition awareness briefs in the Project areas,
- Develop and maintain liaison with other agencies sharing nutrition related experiences, as well as learning from best practices,
- Assist PNGOs to encourage UP members and WCG women to increase consumption of nutritious food and to disseminate practices of nutritional dietary system.

c) Upazila REOPA Committee

- Disseminate examples of best practices related to nutrition among the different stakeholders of the Project,
- Encourage and promote the use of appropriate low-cost technology for homestead gardening, raising poultry and livestock through support by the agriculture and livestock departments at Upazila level.

d) UP – Project Management Committees:

- Encourage WCG women and other community members to increase consumption of nutritious food,
- Encourage community members to improvement of homestead production of animal food and also vegetable gardening to increase consumption of nutritious food,
- Organize awareness campaign for adolescent girls in the communities.

e) Partner NGOs (PNGOs):

- Encourage WCG women to improvement of homestead production of animal food and also vegetable gardening to increase consumption of nutritious food,
- Develop and disseminate nutrition awareness briefs in the Project areas,
- Maintain liaison with other agencies for providing additional nutritional support to WCG women as per their needs.

Programme Level:

a) Women Crew Group (WCG) Members:

- Promote participation of WCG members in different nutritional awareness training programmes,
- Encourage WCG members to increase consumption of nutritious food such as green leafy vegetables, yellow and orange vegetables and fruits, eggs and milk,
- Encourage women to plant fruit trees in their homestead, raise poultry for eggs and meat as well as raise and breed livestock for milk, which can be added to the regular diet of households, and can be sold for additional income.

b) UP Women Members:

- Promote participation of WCG members in different nutritional awareness training programmes,
- Develop efficient linkages between women UP members and different community-based health and nutrition counselling organizations for regular interaction to bring about changes in the communities especially for the adolescent girls and women, promoting nutritional knowledge and adoption of best practices in this regard.

c) Community Level:

- Encourage community members to increase consumption of nutritious food such as green leafy vegetables, yellow and orange vegetables and fruits, eggs and milk.

11. Conclusion

Improving the nutrition level of rural communities increases the quality and quantity of their human capital which in turn contributes to their capacity for productive employment. Many economic benefits are derived as a result of this and the most obvious result is good health and increased productivity. Investment in nutrition is one of the many avenues to overcome the vulnerabilities linked to rural poverty, in particular. This is because meeting their practical needs for food and health is not enough to address the multi-dimensional issues related to poverty and an integrated strategy is necessary that would empower the rural poor, particularly rural women, in their multiple roles as productive members of society. Above all, it will enable them to get engaged in productive employment and generate income that would bring about a definite improvement in their standard of living. This is the overall objective of REOPA Project.

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District REOPA-CST Project Offices are Barguna, Feni, Habiganj, Narsingdi, Sirajganj and Satkhira.
Website of UNDP: <http://www.undp.org.bd> . For REOPA: www.reopabd.org; http://www.undp.org.bd/projects/proj_detail.php?pid=57