Budget and Child Nutrition in Bangladesh

1. Introduction

Child nutrition is vital to the development of healthy human capital for a country. Healthier children have higher rates of school attendance and improved cognitive development.[1] Children with high acute and chronic under-nutrition are more prone to illness as under-nutrition weakens their body's immune and resistance systems. Under-nutrition during the early stage of a child's life permanently affects their physical and mental health and thereby stretches the impact on individuals as well as society in the long run. Brown & Pollitt (1996) cited in UNICEF (2011) found that the intellectual development of children is correlated with their nutritional status; any type of under-nutrition in the first two years of life interrupts normal brain development and thereby perpetuates lasting damage. It is estimated that investing in nutrition can increase a country's GDP by at least 3 per cent annually[1].

High incidence of child under-nutrition can also reduce the effectiveness of spending on child education. Children who are under-nourished are likely to end up with lower productivity and lower GDP per capita. Child under-nutrition can also increase fertility and child mortality, and cause a higher dependency ratio; burdening the economy due to increased public spending on healthcare, which could otherwise be spent to boost economic growth.[2]

The impressive progress recorded in reducing infant and under five mortality rates has yet to be matched when it comes to indicators of child nutrition in Bangladesh. Under-nutrition of children under-five years old is a major reason for childhood illness and mortality in the country. An estimate shows that in 2011-12, about 160,000 child deaths could be avoided by reducing chronic malnutrition (stunting) while about 150,000 child deaths could be averted by reducing acute malnutrition (wasting) [3]. The knowledge and verified interventions to deal with malnutrition is available, affordable and makes economic sense while fulfilling human rights. According to the Copenhagen Consensus, US$1 spent reducing chronic under-nutrition has at least a US$30 pay-off, and that nutrition interventions are highly cost-effective interventions.

This section reviews the challenges of child nutrition in Bangladesh from the perspective of the fiscal measures being applied, focusing on equity and social justice; with a set of recommendations to improve child nutrition in the country.

2. Key Challenges of Child Nutrition

Table 1: Selected Indicators of Child Nutrition

Indicator	2004	2007	2011
% of children age 6-59 months receiving vitamin-A supplementation		83.5	92.0*
% of children under 6 months exclusively breastfed	42.2	42.9	63.5
% of children 6-23 months fed appropriately			20.9
Stunting – severe	22.1	16.1	15.3
Stunting – moderate to severe	50.6	43.2	41.3
Wasting – severe	3.4	2.9	4.0
Wasting – moderate to severe	14.5	17.4	15.6
Underweight – severe	13.6	11.8	10.4
Underweight – moderate to severe	42.5	41.0	36.4

Source: NIPORT (2012) and * DGHS (2012).

Bangladesh has made some progress in reducing child under-nutrition (Table 1). From 2004 to 2011, the proportion of children with moderate to severe stunting (chronic under-nutrition) decreased from 50.6 per cent to 41.3 per cent, while moderate to severe underweight children came down from 42.5 per cent to 36.4 per cent during the same period.[4] Wasting levels remain consistently high

[1]Black, R.E at al. 2008. Maternal and child under-nutrition: global and regional exposures and health consequences. Lancet.Vol 371, No 9608, pp. 243-260

throughout the years. However, in most recent years the reduction of child under-nutrition has been very slow, only 1.9 per cent between 2007 and 2011.

Hence, the country has a large number of children still malnourished, according to available information (See Box). About 6.21 million children under five years old suffer from moderate to severe stunting, while roughly 5.47 million children are either moderately or severely underweight.[5] This large number of children is likely to become a burden on the government's budget and the economy due to their blighted growth and possibility of considerably lower future per capita productivity.

Major Issues of Child Under-Nutrition in Bangladesh

- Achieved some progress in child nutrition indicators.
- About 6.21 million children under five years old suffer from moderate to severe stunting, while roughly 5.47 million children are moderately to severely underweight.
- Considerable disparity exists in malnutrition. Stunting is twice as high in the poorest wealth quintile as the richest
- Rural children are more prone to stunting than urban children. Stunting is highest in Sylhet at 49 per cent.
- About 36.5 per cent of children under six months are not exclusively breastfed and 79.1 per cent of children aged 6-23 months are not fed with appropriate complementary foods.
- In 2011-12, about 160,000 child deaths could have been avoided by reducing stunting while about 150,000 child deaths could have been averted by reducing wasting.

The coverage of vitamin A supplementation has increased from 84 per cent in 2007 to 92 per cent recently according to a report by the NIPORT[6], hence on track to the target of 90 per cent by 2016 set in the Health, Population and Nutrition Sector Development Programme (HPNSDP). However, there is a geographical variation of vitamin A supplementation, which ranges from 96 per cent in Khulna to 89 per cent in Chittagong and Barisal. [7]

As high as 36.5 per cent children under six months old are not exclusively breastfed. On the other hand, 79.1 per cent of children aged 6-23 months are not fed through appropriate complementary feeding practices. These are also contributing to the high incidence of under-nutrition.

Considerable economic and geographical disparity exists in the incidence of under-nutrition. There are high levels of disparity between poor and rich households, as stunting is found to be twice as high in the poorest wealth quintile as the richest.[2] Rural children are found more likely to be stunted than urban children (43 per cent and 36 per cent, respectively). Stunting has been lowest in Khulna and Rajshahi divisions (34 per cent) and highest in Sylhet at 49 per cent, even though the latter performed well in terms of incidence of poverty compared to Rajshahi division (28.1 per cent and 35.7 per cent, respectively[8]). Despite the remarkable progress in Vitamin A supplementation and other health and nutrition interventions, the huge number of children whose growth is blighted by stunting alone poses real challenge to the economy and the country's drive towards middle income status. There are low cost, high impact health and nutrition interventions from a growing body of credible knowledge globally[9] to deal with child under-nutrition, if investments are adequate and timely, within the first 1,000 days of a child's life,

This paper examines the trends in budgetary measures for tackling child under nutrition and proposes the way forward. It is noted that the public investments in health has some direct and indirect benefit on children's nutritional well-being and vice versa. Accordingly, there is a complementary analysis of children and budgets in health and education as part of this social sector budget review. The review did not examine the quality of spending and the inter-sectoral (and multi-institutional) elements for a coordinated action against malnutrition which are equally vital for effective coverage of health, nutrition and related services.

[2] BDHS 2007, 2011

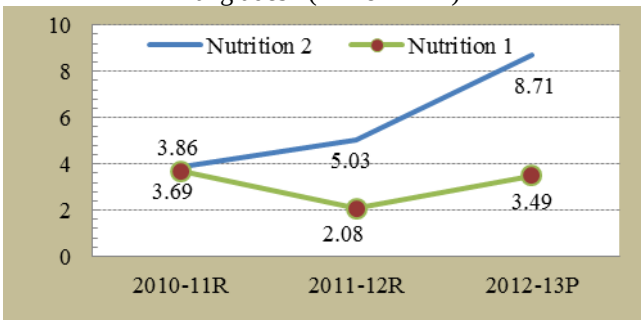
3. Budget for Child Nutrition

As noted above, the budget assigned to health, water sanitation and hygiene and some other sub-sectors of the economy, if properly utilized and coordinated in tandem to tackle child under-nutrition would contribute to improve the indicators discussed herein. Yet, dedicated budget on child nutrition – assigned to promote direct nutrition interventions - is important in sustainably reducing the high prevalence of under-nutrition currently challenging Bangladesh's push towards middle income status by 2021.

According to the Medium Term Budgetary Framework (MTBF) 2011-12 to 2015-16, the major commitment related to child nutrition is expanding activities which provide supplementary foods to pregnant & lactating mothers and children, and distributing vitamin-A capsules among children. However, there is a need for scale-up of a more comprehensive set of direct nutrition interventions. The health budget, separately assessed to comprehend how far existing commitments and programmes are being translated into fiscal measures, did not show significant budgetary attention to nutrition.

A recent study (Hawlader *et al.*, 2012) indicates that the cost of providing effective nutrition services at scale for Bangladesh is BDT 90-120 billion for the period 2011-2021 (*i.e.*, BDT 9 to 12 billion per year) from which the net benefit in terms of increased economic productivity would exceed BDT 700 billion by 2021. However, the Government of Bangladesh is currently spending much less in child nutrition as can be revealed from the budget of the Ministry of Health and Family Welfare, Ministry of Women and Children's Affairs, and Ministry of Primary and Mass Education. The biggest nutrition project in the budget is the National Nutrition Service as a component of HPNSDP, which covers mainly childhood under-nutrition (under-2 and 3-5 year old children), adolescent girls, and lactating and pregnant women. The budget for this project is BDT1.84 billion in FY2012-13. National Nutrition Services has an allocation of BDT 300 million each year for the bi-annual vitamin A supplementation programme.

Figure 1: Trend of national budget on child nutrition in Bangladesh (Billion BDT)



Note: R = Revised, and P = Provisional.

There are some other programmes in the Social Safety Net that partly contribute to reducing child under-nutrition, *viz*. Maternity Allowance Programme for the Poor Lactating Mothers, Allowances for Urban Low-income Lactating Mothers, and Maternal Health Voucher Scheme (see, Table 2). Together, the budget on child nutrition programmes was nearly BDT 3.49 billion in 2012-13 with a fluctuating trend from 2010-11 to 2012-13 (Nutrition 1 line in Figure 1); yet significantly lower than the allocation suggested by Hawlader *et al.* (2012).

The government recently introduced the School Feeding Programme, which can be considered to have benefit on food intake for poor school-going children particularly in rural areas. Beyond increasing school attendance particularly in targeted schools in chronically food insecure rural areas and urban slums in Dhaka, it provides additional calories to improve attention and learning capacity by reducing short-term hunger and improving nutritional status that would lead to positive nutritional outcome for these children. Budget has been increasing significantly in this programme, surpassing budget of all the programmes alone in 2012-13. Adding this amount, the

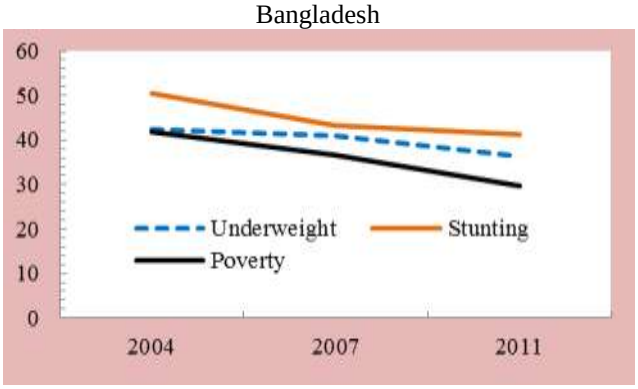
budget on child health has been increasing steadily in recent years (Nutrition 2 line in Figure 1). Yet, the impact is not visible in the level of stunting which is an outcome indicator of under-nutrition. This justifies why more focus and attention should be placed on nutrition interventions during the first 1,000 days of life, from pregnancy to when the child is two years old. The first 1,000 days represents the critical window of opportunity where under-nutrition, stunting and its permanent consequences can be prevented. Hence, the budget outlay for dealing with under-nutrition needs to focus on interventions within the first 1,000 days of a child's life, if the high level of stunting is to be reversed. This is the challenge that the government and its development partners must address to better harness investments in health, nutrition and education, considering the synergies discussed above.

Table 1: Social Safety Net Programmes Coverage and Budget in Child Nutrition (in Billion BDT)

Programme	2010-11R		2011-12R		2012-13P	
	Budget	Coverage (million)	Budget	Coverage (million)	Budget	Coverage (million)
Maternity Allowance Programme for the Poor Lactating Mothers	0.37	0.80	0.43	0.92	0.43	0.92
Allowances for Urban Low-income Lactating Mothers	0.29	0.68	0.33	0.78	0.33	0.78
School Feeding Programme	0.18	0.31	2.95	2.44	5.22	2.44
National Nutrition Service	2.15	2.18	0.65	0.66	1.84	1.86
Micro-Nutrient Supplementation	0.22		0.00		0.00	
Maternal Health Voucher Scheme	0.66	1.79	0.68	1.83	0.90	2.03
Total	3.86		5.03		8.71	

Note: R = Revised, and P = Provisional.
Source: Ministry of Finance, Government of Bangladesh.

Figure 2: Trend of poverty and child nutrition in Bangladesh



Specifically, child nutrition programmes suffer from some notable drawbacks.

A demand-side financing Maternal Health Voucher Scheme has been introduced with increasing allocation, which has been benefiting nutritional status of the newborn. However, universal coverage of this programme needs to be considered in view of its positive benefit on the nutrition of new borns– rightly within the critical window of the first 1,000 days of a child's life. Rural recipients of maternity allowance are spending a part of their allowance on children's food although many eligible poor mothers have not been covered in this programme. Also, a considerable amount of the allowance is being spent on fulfilling household necessities, such as building houses and clothing.[10] . Although it suffers from a slow start-up of voucher reimbursement arrangement and considerable mis-targeting[11], such evidence should be used to increase the efficiency of the Maternal Health Voucher Scheme.

Even though notable progress has been achieved in poverty reduction over the last seven years, the gap between poverty reduction and reduction of the number of underweight children has been increasing (Figure 2). The incidence of stunting is decreasing in a much lower rate than the rate of poverty reduction since 2007. In other words, public spending on poverty alleviation programmes is not being translated into reduction of child under-nutrition proportionately. This implies that there is a need for special budgetary attention to child nutrition, focused on direct nutrition interventions such as the Maternal Health Voucher Scheme and other proven

interventions that impact positively on nutrition in the first 1,000 days of a child's life. It will be a bold move to benchmark future reduction in poverty to progress in reducing underweight amongst children in their first two to three years of life, with adequate budgetary measures.

4. Policy Implications

Bangladesh aims at attaining middle-income country status and achieving double-digit real GDP growth in 2021. The growth in GDP alone without adequate attention to social deprivation especially those with a huge impact on the nutritional wellbeing of children will lead to a distortion in development. For the millions of children (refer to page 1 above) who are stunted and/or underweight, it translates to a huge socio-economic burden on the economy, which could undermine the dream of a socially just society by 2021. However, the concern lies behind huge current child malnutrition as these affected children will enter the labour market with diminished human capital potential and thus lead to low per capita GDP. Bangladesh has also taken up a bold global leadership in the alliance, Scaling Up Nutrition (SUN) at the highest level, raising hopes for quick local action to deal with the huge problem of child under-nutrition. It is against this background that the following recommendations are proposed for consideration by the government and development partners in nutrition, health, water sanitation and hygiene, education and civil society as well as the private sector:

1. Child nutrition is viewed as a fundamental human right according to the Constitution of Bangladesh. Incidence of child under-nutrition remains very high. To realize this right for the millions of children and launch Bangladesh solidly into middle income status with social equity, direct nutrition interventions with impact on the first 1,000 days of a child's life should be prioritized and budgeted adequately. In this regard, the government (Institute of Public Health Nutrition Bangladesh, IPHN), Ministry of Health and Family Welfare with technical support by UNICEF and other development partners, needs to cost the package of interventions, linking budget to key performance milestones, to be considered by the Ministry of Planning and other stakeholders in the budget.
2. Coordinated multi-sector strategy backed by budget for promotion of child nutrition should include but not limited to the existing school feeding programme so that the productivity gain will be significantly higher than the anticipated cost of providing nutritional services. The focus should be on direct nutrition interventions that can be scaled up with adequate resources targeting the first 1,000 days. The reality of child under nutrition has to be perceived and reflected in the national budget, through increasing allocation to promote programmes for enhanced child nutrition, in all relevant sectors.
3. The government and other development partners need to invest in stronger equity analysis, innovations and partnerships to understand and address nutritional disparities
4. The Sixth Five-Year Plan (2011-2015) to include direct nutrition interventions backed by budget in the Medium Term Budgetary Framework and its annual allocation tied to specific milestones for children.
5. Increase general public awareness and discourse on under-nutrition and its impact on families, communities and on the economy is equally vital, hence partnerships with the media should be pursued.
6. Establish and fund national nutrition information systems to track and monitor impact and results of nutrition programmes as well as provide real time information to guide decision making, including budgetary appropriation.
7. Finally, the newly introduced National Nutrition Service Programme has to be strengthened, with technical support from all development partners in nutrition.

[1] D.E. Bloom, D. Canning, and D.T. Jamison, "Health, Wealth, and Welfare: New evidence and a wider perspective suggest sizable economic returns to better health", In J. Clift (ed.), *Health and Development*, IMF, Washington DC, 2004, pp. 10-15.

[2]J.P. Ruger, D.T. Jamison, and D.E. Bloom, "Health and the Economy," In M.H. Merson, R.E. Black, and A.J. Mills (eds.), *International Public Health*, Jones and Barlett, Massachusetts, 2001, p. 619.

[3]S.R.Howlader, K.Sethuraman, F. Begum,D. PaulA.E.Sommerfelt and T. Kovach, *Investing in Nutrition Now: A Smart Start for Our Children, Our Future*, PROFILES and Nutrition CostingTechnical Report, Ministry of Health and Family Welfare, Government of Bangladesh, Dhaka, 2012.

[4]NIPORT, *Bangladesh Demographic and Health Survey 2011:Preliminary Report*, Dhaka, 2012.

[5]The calculation is based on the data from NIPORT, *Bangladesh Demographic and Health Survey 2011:Preliminary Report*, Dhaka, 2012; and BBS, *Population & Housing Census 2011*, Planning Commission, Government of Bangladesh, Dhaka, 2012.

[6] NIPORT, 2012, op cit.

[7] DGHS, *EPI Coverage Evaluation Survey 2011*, Government of Bangladesh, Dhaka, 2012.

[8]BBS, *Report of the Household Income and Expenditure Survey 2010*, Planning Commission, Government of Bangladesh, Dhaka, 2011.

[9] Bhutta et al (2008). Maternal and Child Undernutrition 3. What works? Interventions for maternal and child undernutrition and survival. Published Online January 17, 2008DOI:10.1016/S0140-6736(07)61693-6

[10] A. Barkat, A. Karim and A. Hussain, *Understanding the Scope of Social Protection Measures as Means to Improve Child Well-Being: A Comparison between Document and Reality*, HDRC, Dhaka, 2010.

[11] Interview with M. Zobair Hassan, Chief of Research and Evaluation of DORP, Dhaka. DORP has successfully piloted "Maternity Allowance Programme for the Poor Lactating Mothers", which was introduced by the government later on.