Sri Lanka
State of the Economy Report 2016

Chapter 15
SDGs to Improve Nutrition

by
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15. SDGs to Improve Nutrition

15.1 Background

Hunger and food insecurity were key topics of discussion at the Sustainable Development Summit which is encompassed in the SDG 2: End Hunger, Achieve Food Security, Improve Nutrition and Promote Sustainable Agriculture. The targets under this goal are expected to be achieved by 2030.

This goal has a series of interrelated components. Agriculture is viewed as the central element of goal 2, therewith endorsing an agricultural, food-based, rural-centred approach. It is nonetheless complex to achieve goal 2 targets because there is insufficient evidence on how to successfully scale up food security and nutrition strategies. To alleviate hunger and to improve nutrition, non-agricultural factors, conflict reduction or prevention, clean water and sanitation, bridging gaps in inequality and social security policies have been overlooked.[1] Although there is a strong focus on food security and nutrition as observed in the title of the goal, it is merely two targets which directly address food security issues, whereas the remaining targets relate to food availability. Significant trade-offs within this goal are apparent. In particular between targets of doubling agricultural productivity and incomes of small scale farmers coupled with ensuring environment sustainability.[2]

While Sri Lanka has done commendably well on most human development indicators, it has struggled with nutrition indicators, particularly in relation to nutritional status of children, adolescents and women. Thus, this Policy Brief will examine the implications of the SDG 2 on nutrition for Sri Lanka's policy intervention.

15.2 From MDGs to SDG Nutrition Targets

The inter-linked SDGs are an integrated set of priorities that are built on the unfinished business of the MDGs (Table 15.1). From a regional perspective, Sri Lanka is advantageously placed in the field of child and maternal health and nutrition in South Asia. This is attributed mainly to sound governmental policies to strengthen the country's public health care system over the years, which in turn has decreased the burden of diseases. Nonetheless, a comparison of SDG targets and the status quo as depicted in Figure 15.1 indicate that Sri Lanka will need to pay considerable attention to necessary policy

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1 Scholes, M., *et al*, (2015)," Review of Targets for the Sustainable Development Goals: The Science Perspective", International Council for Science (ICSU), Paris.

2 Burchi,F.,and Holzapfel, S., (2015)," Translating an Ambitious Vision into Global Transformation: The 2030 Agenda for Sustainable Development", German Development Institute, Bonn.

Table 15.1
Comparison of MDG and SDG Targets

	Targets
MDGs	• Halve, between 1990 and 2015 the proportion of people who suffer from Hunger. • Reduce by two-thirds between 1990 and 2015, the under-five mortality rate. • Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
SDGs	• By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round. • By 2030, end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons. • 40 per cent reduction in the number of children under-5 who are stunted. • 30 per cent reduction in low birth weight. • Reduce and maintain childhood wasting to less than 5 per cent.

interventions to achieve some of the key SDG targets.

According to available data, the occurrence of stunting in Sri Lanka declined from 18.4 per cent in 2000 to 17.3 per cent in 2007; at the same time the percentage of underweight children dropped from 15.5 per cent to 14.7 per cent.[3] For Sri Lanka to achieve its given targets by 2025 further targeted investment in child health is central, especially to reduce gaps across geographic regions.[4]

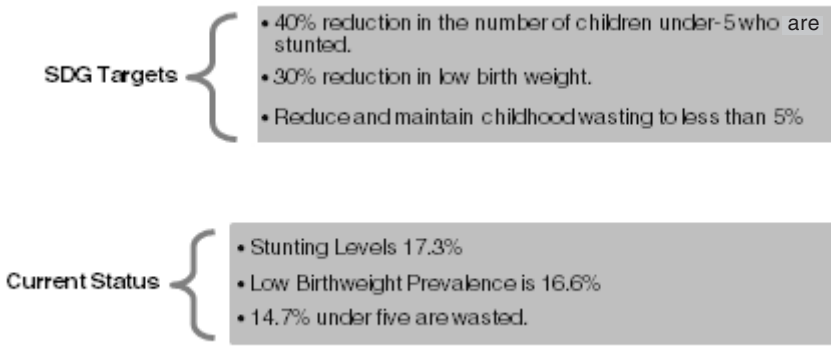
Although local cost estimates are not available, the World Bank, in partnership with the Gates Foundation and Children's Investment Fund, has estimated that it will cost approximately an additional US$ 8.50 per child per year to meet the global stunting target. In aggregate, it is estimated that the total additional investment required to scale up this package of interventions is US$ 49.6 billion over the next 10 years, with smaller annual investments in the first five years and increasing gradually as coverage increases.[5] This cost entails improving maternal nutrition and young child feed practices, such as exclusive breastfeeding for the first six months of life; and improving child nutrition through micronutrient supplementation and the provision of nutritious complementary foods.

[3] DCS, "Demographic and Health Survey 2006/07", Department of Census and Statistics, Colombo.

[4] For example, according to DHS 2006/07 data, regional variations indicate wasting ranges from 10.5 per cent to 28.1 per cent.

[5] World Bank "Reaching the Global Target to Reduce Stunting: How Much Will it Cost and How Can We Pay for it?", available at http://thousanddays.org/tdays-content/uploads/Stunting-Costing-and-Financing-Overview-Brief.pdf

Figure 15.1
SDG Targets Compared with Status Quo



Source: DCS, "Demographic and Health Survey 2006/07", Department of Census and Statistics, Colombo; WHO (2014), "Indicators for the Global Monitoring Framework on Maternal, Infant and Young Child Nutrition", World Health Organization, Geneva.

For Sri Lanka to achieve its given targets by 2025, further targeted investment in child health is central, especially to reduce gaps across geographic regions.

SDGs unlike the MDGs encompass the need for nutrient sufficiency and diet quality in goal 2, both necessary in the short and long-terms to improve nutrition. This requires efforts to enhance access to healthy diets, improved knowledge for food choices, stronger resilience of food systems to economic, climatic and human-made shocks, and remediation of food-borne threats to consumers.

The food security situation in Sri Lanka in particular has improved significantly over the years. International Food Policy Research Institute (IFPRI) report on Global Hunger Index (GHI) 2014 ranks Sri Lanka at the 39th position among 76 countries; indeed, a comparison of the 1990 GHI and the 2014 GHI depicts a noteworthy progress with a decrease of 42 per cent in the country's GHI index score.[6] All of these factors suggest that a multi-sectoral approach is central to achieve SDG targets on nutrition sufficiency.

[6] Thibbotuwawa,M.,(2015)," Food Security: Does it Matter for Sri Lanka?" http://www.dailymirror.lk/94013/food-security-does-it-matter-for-sri-lanka

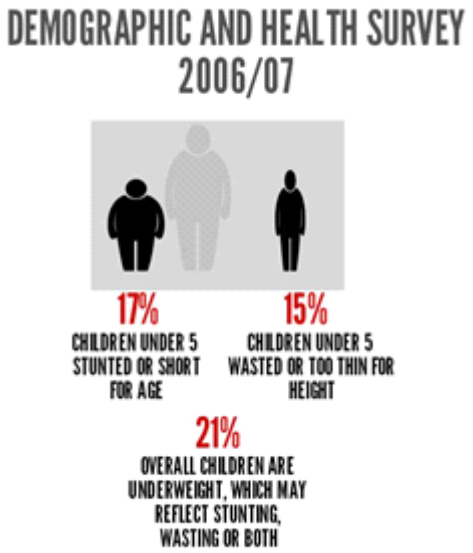
Gates Foundation and Children's Investment Fund, has estimated that it will cost approximately an additional US$ 8.50 per child per year to meet the global stunting target.

15.2.1 Current Nutritional Status in Sri Lanka

Continued support towards providing free universal health services has led to a steady improvement in Sri Lanka's health indicators, particularly in relation to maternal and infant mortality and life expectancy. For example, limiting the maternal mortality rate to 32.5 per 100,000 live births by 2013, the infant mortality rate to 8.6 per 1,000 live births by and a steady rise in the life expectancy to 74.3 years by 2013, are significant achievements.[7] However, Sri Lanka performs poorly on nutrition indicators. The nutritional status of children, adolescents and women are unsatisfactory. Data highlight that 20 per cent of children under five years are underweight, nearly 16 per cent of babies born have low birth weight and 16 per cent of women within the reproductive age (15-59) are malnourished.[8] Malnutrition is predominantly caused by household food insecurity, inadequate care for mothers and children, poor access to health and environment services. Socio-economic status, educational attainment, type of employment, and cultural norms and beliefs play a role in determining the extent of malnutrition. Inadequate dietary intake and disease are often the immediate

[7] CBSL, *Annual Report 2015*, Central Bank of Sri Lanka, Colombo.

[8] Jayawardena, P., (2014),"Underlying Causes of Child and Maternal Nutrition in the Estate Sector of Sri Lanka", *Journal of South Asia Studies*,2(3).



causes of under-nutrition. This increases the likelihood of illness, due to weakened immune levels, and illness leads to a loss of appetite and poor absorption which worsens under-nutrition.

Nutrition outcomes of women and children less than five years of age are primary indicators of household nutrition security. Stunting or 'shortness for age' is a measure of chronic malnutrition and results from prolonged lack of adequate nutrition, repeated infections or both. Similarly, wasting or 'low weight for height' is a measure of acute malnutrition which results from sudden deprivation of nutrients. According to the Family Health Bureau (FHB) data, during 2007-2013 nearly 12-13 per cent of newborns weighed less than 2.5 kilograms at birth.[9] The Demographic and Health Survey 2006/07 reveal that 17 per cent of children under five are stunted or short for their age, while 15 per cent of children under five are wasted or too thin for their height. Overall, 21 per cent of children are underweight, which may reflect stunting, wasting, or both.

The most critical period for the onset of child malnutrition is during the 1,000 day window from conception to two years of age. During pregnancy and while breast feeding, the health and nutritional status of the mother is critical; the practice of optimal feeding and care practices drives child nutritional status. Maternal undernourishment underlies a high rate of low birth weight (LBW), while pre-pregnant Body Mass Index (BMI) is an indication of the birth weight of the newborn which affects the child's nutrition. Approximately 23 per cent of pregnant mothers were found to be underweight and this proportion remained constant over the past seven years.[10] LBW is closely associated with heavy labour demands of agriculture particularly for women since they engage in strenuous activities throughout pregnancy and fail to obtain adequate sleep and nutrition. Thus, they run the risk of bearing LBW babies translating to an increased risk of child malnutrition. Apart from women engaging in heavy labour, maternal knowledge and cultural factors influence the utilization of health services and available food. While poverty is an important basic determinant of child under-nutrition, other major determinants of malnutrition in the country include inappropriate feeding practices, micronutrient deficiencies, and disease.[11]

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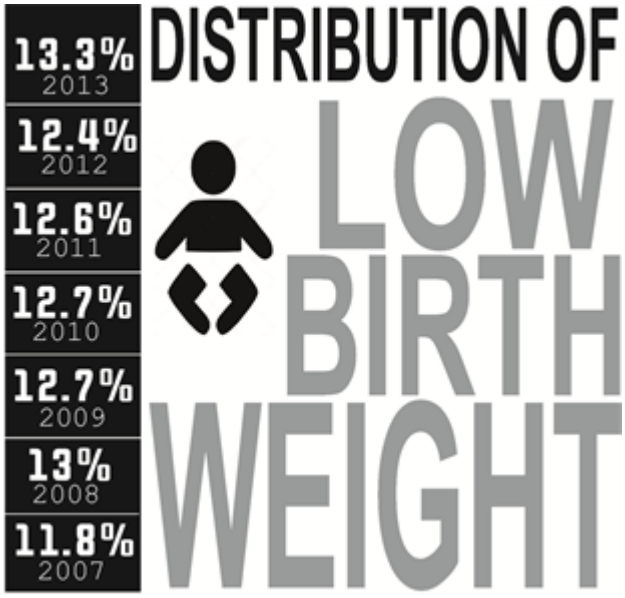
9 Family Health Bureau (2013), *Annual Report 2013*, Ministry of Health, Colombo.

10 *Ibid*.

11 WFP (2015), "Sri Lanka Food Security Atlas: Livelihoods, Food Security and Resilience", World Food Programme.

Figure 15.2
Distribution of Low Birth Weight: 2007-2013



A higher prevalence of mal-nutrition is observed in poor resource settings.

A higher prevalence of malnutrition is observed in poor resource settings. The highest prevalence of LBW is in the estate sector where access to and utilization of health services between the estate sector and the rest of the country shows a marked disparity.[12] District-wise, Nuwara Eliya report the highest percentage (20.6 per cent) of newborns with LBW; districts with higher percentages of estate population, namely Badulla (17.5 per cent) and Kegalle (16.9 per cent), and rural districts such as Ratnapura (16.3 per cent), Ampara (15.8 per cent) and Polonnaruwa (15.3 per cent) also report a higher percentage of newborns with LBW (Figure 15.3).

Approximately 30 per cent of children below five years of age in the plantation sector are underweight, with one-in-three babies born recording LBW and one-third of women in reproductive age identified as malnourished.[13] Consumption of protein rich foods, other essential nutritional foods such as fruits, vegetables rich in Vitamin A and cereals are lower among estate children than the average. It has been observed that as a mother's education levels increase, the prevalence of stunting declines, reinforcing the importance of maternal education. Stunting is highest in the estate sector of the country where water and sanitation is poor and access to good quality health services is lower.[14]

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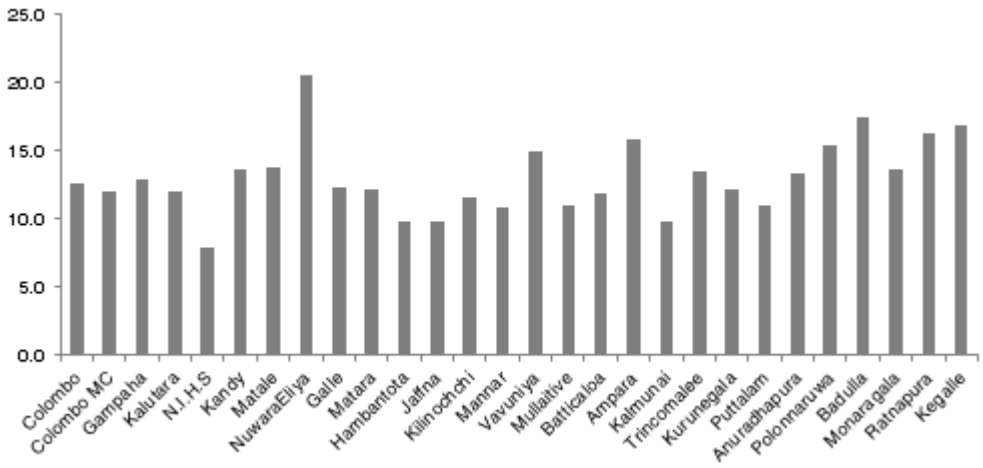
[12] Jayawardena, P., (2014),"Underlying Causes of Child and Maternal Nutrition in the Estate Sector of Sri Lanka", *Journal of South Asia Studies,2*(3).

[13] *Ibid*.

[14] *Ibid*.

Figure 15.3
Nutritional Status of Infants and Children 2013



Source: Family Health Bureau, *Annual Report 2013*, Ministry of Health, Colombo.

15.3 Challenges and Recommendations for Improving Nutrition

A majority of nutrition programmes and expenditures are incurred by the government. However, impact evaluations of nutrition interventions are scarce and only limited information is available.[15] Maternal and child health (MCH) programmes have proven to be effective for providing maternal and child health services through routine nutrition services such as the provision of Iron foliate and Vitamin C supplements, although there has been a failure to provide adequate nutrition counselling and education. This is largely blamed on public health midwives being overworked and overburdened, leaving them insufficient time to counsel pregnant women and mothers. This illustrates the institutional incapacities to effectively deliver services. It is noted for example, that undernourished children are either advised to eat more food, or referred to a clinic if illnesses are detected, where Thriposha is prescribed as the remedy. However, irregular supplies and the tendency to share food supplements with the family results in some children and mothers receiving insufficient amounts of the food supplement. Health professionals are not equipped to provide counselling and to assess other potential causes of under nutrition.[16] This deficiency is partially explained by a medical incentive system that rewards medical professionals for treating patients and dissuades medical students from focusing on preventive health issues. As a result of these rigid attitudes, there

[15] World Bank (2008), "Policy and Programmatic Responses to Malnutrition: What is being Done?", available at http://siteresources.worldbank.org/ SRILANKAEXTN/Resources/233046-1222978473355/ch4LKNutritionOct2008-2.pdf.

[16] Weerasinghe, M., and S. Bandara (2015), "Health and Socio-economic Determinants of Malnutrition in the Plantation Sector of Sri Lanka: A Review", Working Paper Series No. 21, Institute of Policy Studies of Sri Lanka, Colombo.

Irregular supplies and the tendency to share food supplements with the family results in some children and mothers receiving insufficient amounts of the food supplement.

is little cross-sectoral collaboration at the community level across health, agriculture, education, and poverty reduction/social development sectors.

MCH programmes however have the potential to substantially improve the quality of nutrition services provided through the public health sector, but it is also likely to require the allocation of more resources towards improving the quality of services. Moreover, it is essential to identify a package of direct nutrition services which are cost effective and is responsive to the epidemiology profile. Being cost effective also implies that a package of services needs to be targeted to the populations that need it the most.

A critical path towards reducing malnutrition and meeting the SDG goal 2 in Sri Lanka is to meet nutrient requirements from an increasingly diverse diet, including processed, fortified foods for pregnant and lactating women and children of 6-23 months of age. Regionally more than a half of households in the Eastern Province could not afford an adequately nutritious diet.[17] In the Uva Province it ranged between 39-48 per cent, while in the Northern and Central Provinces the share ranges between 27-36 per cent. This indicates a direct link between diets and malnutrition outcomes; the inability of households to access sufficient nutritious food is a key contributing factor of malnutrition in the country. Interventions directed at preventing and reducing malnutrition should therefore either supplement incomes, make nutrient rich foods available or facilitate market functioning in addition to programmes focusing on nutrition awareness, improvement in water and sanitary facilities and access to health facilities, to make an impact on nutrition outcomes.

School-based nutrition services are necessary to activate nutrition aspects of many agricultural development projects and programmes. For example, promotion of traditional cropping systems should be accompanied by extension-based education services. These services

[17] WFP(2014),"Minimum Cost of a Nutritious Diet in Sri Lanka", available at http://documents.wfp.org/stellent/groups/public/documents/ena/ wfp 280059.pdf.

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would encourage crop diversification, distribution of high-nutrient foods accompanied by education and social marketing efforts to encourage increased intake of these foods. Promotion of gardens in schools, communities or individual households increases awareness regarding the importance of good nutrition, building local capacity, and increasing the physical availability of fruits and vegetables.[18] Education programmes that are an extension or school-based can also promote food safety. Promotion of preservation techniques to maintain micronutrient levels in foods not only reduces post-harvest losses but, when coupled with education services to improve nutrition education, will play an essential role in dietary diversity and improve intake patterns.

Availability of and access to nutritious products should be increased by collaboration between the private and the public sector. The private sector can produce and market special nutritious foods, while the public sector sets standards, promotes healthy food choices, and ensures access to special nutritious foods for the poorest, for example through social safety net programmes.

[18] Gates Foundation (2014), "Sustainable Agriculture, Food Security and Nutrition in the Post 2015 Framework," available at https://docs. Gatesfo undation.org/documents/Post%202015%20Food%20Security%20Discussion%20Paper.pdf.