Targeted Interventions against Hunger and Malnutrition: School Feeding Programmes

Case Study Brief Series No. 1

December 2012

United Nations Regional Thematic Working Group on Poverty and Hunger in Asia and the Pacific

Introduction

This case study brief[1] discusses the process and results of direct nutrition investments through school feeding programmes in India, building upon the experience of the Indian state Tamil Nadu.

Addressing hunger is urgently needed in the Asia-Pacific region where about one in six persons are malnourished and one in three children are underweight (ADB, 2010). In South Asia, 42 percent of children are underweight (UNICEF, 2009), and underweight prevalence is also notably persistent in some countries of South-East Asia and the Pacific.[2]

Direct feeding scheme in Tamil Nadu, India, started with political will from above (government) but interest from below (beneficiaries) ensured that the political will was sustained through changes in governments.

Efforts to deal with this situation are being impeded by two factors: governments and donors tend to resist implementing targeted direct food interventions due to concerns related to operational costs and logistical complexities in sustaining such schemes, and the lack of understanding that access to food is a basic right of an individual as well as the implications associated with not addressing this issue.

Directly targeting nutritionally vulnerable groups could be an instrument used to operationalize the idea of the right to food. Such schemes can effectively complement other policies that address barriers to food security, such as price and incomes, by focusing specifically on the most nutritionally vulnerable groups to manage hunger, prevent irreversible physical damage and strategically intervene during periods of human growth spurt.

The right to food, unlike some other rights, such as the right to education, raises two conceptual questions: Who enforce(s) the right to food and who is/are accountable if the right is not honoured? How can it be monitored? It is generally agreed that the right to food does not imply that States must provide food to everyone (FAO, 2002). Nevertheless, once social legitimacy is established such that people come to expect and demand social and economic rights as a matter of course, State policies can be induced to respond and make them *de facto* rights. For example, child labour, which was common during the process of industrialization in many parts of the developed world, is unacceptable today, with full time schooling the norm.

Furthermore, effective operationalization of the right to food requires the participation of all—the people, civil society, experts and governments—to ensure that all citizens are well-nourished through access to food and knowledge.

This brief highlights that although publicly funded preschool and school feeding programmes alone are not sufficient instruments in combating hunger, they serve as important ingredients towards fulfilling the right to food as they address issues of availability, food safety and acceptability, which are the core elements of the right to food. In India, the culmination of experiences over the last decades backed by strong political and public support prompted the Cabinet to sign a food bill in 2011[3] to provide monthly subsidized food grains or meals at "free or affordable prices" to 64 percent of the population, or 770 million people (Sinha, 2011), covering those who are destitute, homeless, disaster-affected or living in starvation, including women-headed households (Parsai, 2011). In addition, feeding programmes can also contribute to a number of other economic-, social-, health- and education- related goals that extend beyond combating hunger.

Situation Analysis

Hunger[4] and malnutrition have persisted in Asia despite steady declines in income poverty. Reducing poverty has not resulted in corresponding nutritional improvements (table 1). The share of children under five who are moder-

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ately or severely underweight, especially in South Asia, remains much higher than the share of the population in poverty. Malnutrition occurs as a result of excesses or a shortage of certain nutrients and affects both the poor and the rich, whereas undernutrition arises due to a lack of sufficient calories.[5] Malnutrition has persisted as a serious issue, recently exacerbated by the rise in global food prices. Its prevalence among children is said to be a proper indication of the condition of the population as a whole. Food and specific nutrient-linked undernutrition is a contributory cause of many child deaths (UNICEF, 1997) as food deprivation leads to the debilitating effects of infectious diseases. Malnutrition can be transmitted across generations through undernourished mothers. Inaccurate information and inadequate knowledge about nutrition can act as barriers in tackling the issue, which, in turn, compounds the cycle of low birth weight, undernourished children and poor adolescent growth, and adversely affects cognitive development and productivity and earnings.

Although much progress has been made in combatting malnutrition in East Asia between 1990 and 1994 and 2003 and 2007 where the number of malnourished children under five years old was more than halved and the share of underweight children remained at a relatively low level, almost half the children in southern Asia are underweight (ADB, n.d.). The share of undernourished children below five years old in South Asia is alarming, comparable to the world's poorest countries and in some instances even higher as in the cases of Burkina Faso and Sierra Leone (UNDP, 2007). In India, for example, half of children under five years old are clinically underweight and malnutrition is at least twice the level of poverty.[6] The country has also the highest proportion of stunted children in the world (HUNGaMA, 2011).

Combating hunger and reducing the prevalence of malnutrition are common aims of many national plans. Food that provides nutrition for basic survival and sustenance addresses both the hunger and health Millennium Development Goals (MDGs) and contributes to the poverty reduction, education and gender equality Goals.

Nutrition security is important, both as an instrument in achieving economic growth and as an end in itself. Investing in nutrition can reduce health care costs and the incidence of diseases as well as income poverty by enhancing productivity through improved educational attainment and reduced household expenditure on curative care. It not only contributes to physical and mental well-being, but also widens the capabilities of the present and succeeding generations in terms of human development. National policies have responded to this issue in different ways. The subsequent section will elaborate on how the Indian state Tamil Nadu pioneered direct food interventions as a policy instrument, which has been upscaled nationally and implemented in a number of states, with a varying degree of success.

Description of the Tamil Nadu preschool and school feeding schemes

The experience of the long-standing direct feeding scheme in Tamil Nadu provides the basis for the operation of key principles for success and helps identify limitations and persisting problem areas. It can also offer useful pointers to other developing countries in refining their goals and priorities to combat hunger and malnutrition that are not automatically addressed by income poverty reduction.

Tamil Nadu has a history of providing food outside the home for young children and mothers as far back as 1956 or perhaps even earlier. It was not until 1982, however, that near-universalized feeding for the nutritionally vulnerable population through visible public funding was institutionalized. Despite initial operational difficulties, school feeding continued over the years, with the operations extended to cover the hardest to reach group, preschoolers, namely children between two and five years old, and the nutrition concerns directly integrated into the programme. The convergence of interests between what was democratically attractive (i.e. visible, publicly funded feeding schemes) and what was technically recommended (i.e. multisectoral nutrition schemes) enabled the nutrition-cum-child-development programme to become well entrenched in the state.

A distinctive feature of the Tamil Nadu scheme, which came to be known as the "Mid-Day Meal (MDM)" scheme, is that it provides a hot cooked meal instead of supplying dry rations or precooked items, such as biscuits, which were more popular in other states. Through the network

Table 1: Nutritional status and poverty in the Asia and the Pacific

Sub region	% of underweight children under five (moderate & severe) *		% of population below US$ 1.25 a day**	
	1996-2005	2003-2008	2005	2008
East Asia and Pacific	15	11	17	14
South Asia	46	42	39	36

** Moderate - below minus two standard deviations from median weight-for-age of reference population; severe - below minus three standard deviations from median weight-for-age of reference population (Source: UNICEF, 2009). Data refer to the most recent year available during the period 1996-2005 and 2003-2008.*
*** See World Bank 2012.*

of centres that operate in villages, urban wards and schools, a nourishing daily noon meal is provided to preschool and school-age children. Moreover, supplementary feeding is given to other nutritionally vulnerable groups, such as pregnant and nursing women and adolescent girls and children below 24 months. Communication on nutrition and linkages with other issues, such as health, was established, including among others, growth monitoring, immunization, deworming, iron and folic acid and vitamin A administration. Despite local issues regarding such aspects as quality and variations in functioning, staff motivation and skills, a cooked MDM programme for primary school children was first universalized in three states, namely Tamil Nadu, Gujarat and Kerala, during the mid-80s. The coverage was increased to 12 states by 1991. Today, MDM is the world's largest school feeding programme, covering about 120 million children in more than 1.2 million primary and upper primary schools and Education Guarantee Scheme centres[7] across India (Government of India, 2012).

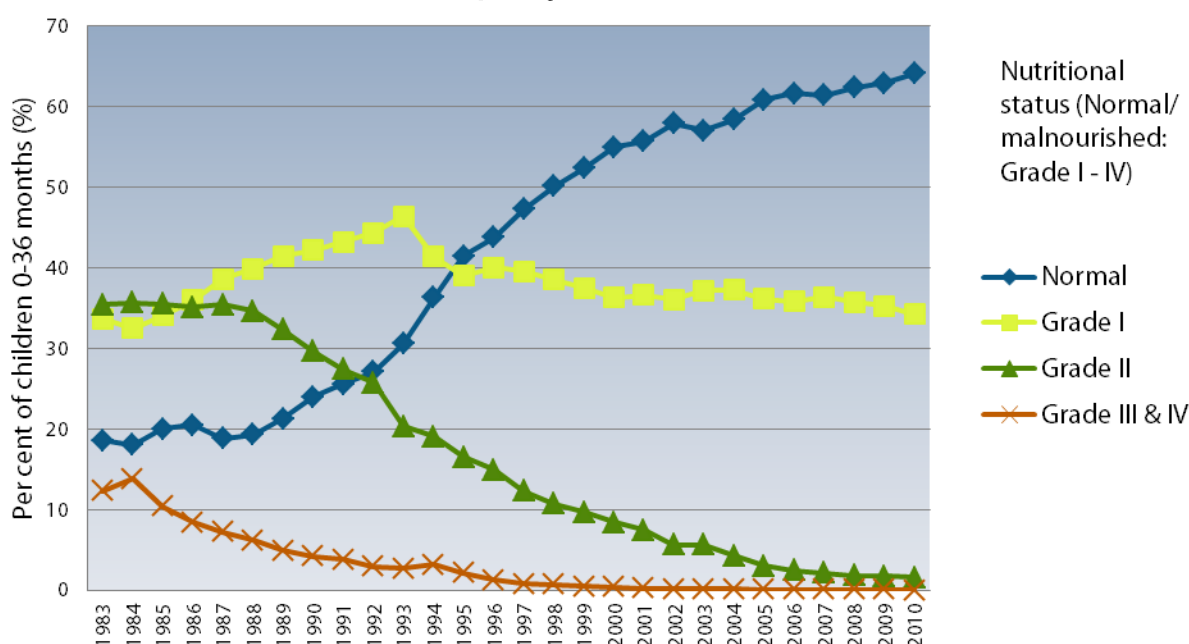
The programme has been in operation for more than four decades, merging related projects and funding sources (including external) into a coherent programme that covers integrated child development services and noon meals. Its durability is largely due to a combination of political and ground-level factors that resulted in policy attention and resource allocations. In the early years, (1956-1982), political will from above (government) ensured public policy attention[8] with budgetary allocations despite initial misgivings from experts and donors. Interest from below (beneficiaries) ensured adequate bottom-up pressure that ensured that the political will was sustained through changes in governments. It became difficult for feeding centres to be discontinued without causing local reaction and enquiry. The pressure from below, thus, contributed to the retention of political will over time with the sustained level of public expenditure. Pressures from both sides worked against food diversion and maintained the quality and regularity of the programme, which was especially important during its early phases.

Changing circumstances have brought forward second generation issues, which are associated with changing food habits, population relocation, remote location access, and staff motivation and training. Moreover, a far more participatory programme design and implementation and a stronger focus on imparting nutrition knowledge to individuals, households and other stakeholders to make pro-nutrition choices have become increasingly relevant in line with the state's goal to reduce malnutrition to an extent that it is no longer a public health issue.

The achievement of the scheme can be measured by the trend observed over 24 years, based on weight-for-age data maintained for participating children less than 36 months of age. Figure 1 shows a clear and steady decline in severe malnutrition (grades III and IV) to negligible levels. Simultaneously, the percentage of normal children has risen from below 20 percent to greater than 60 percent.

A few other states in India initially followed the Tamil Nadu scheme of providing midday meals for children. The midday meal programme was upscaled to cover all the states of the country in late 2001 when public interest litigation resulted in the Supreme Court of India directing all government and government-assisted primary schools to provide cooked midday meals for school children and preschoolers below six years of age.[9] Pressure from below, for example through a nationwide "Right-to-

Figure 1: Trends in Nutrition Status of Participating Children 0-36 Months in Tamil Nadu, 1983 to 2010



Source: Office of the Project Coordinator, Integrated Child Development Scheme (ICDS), Government of Tamil Nadu
Notes: The nutritional status based on the growth monitoring of participating children under 36 months old under the Integrated Child Development Services project. Grade I – IV shows different level of malnutrition, with grade I denoting mildly malnourished, grade II moderately malnourished and Grades III & IV severely malnourished.

food Campaign" by an informal network of supporters helped ensure the quality and sustainability of the programme, which varied widely across states.

Potential and limitations

Direct food interventions can bring multiple benefits. Good nourishment helps build a person's capacity to resist and recover from disease as well as improves ones earning capacity through improved productivity and reduced absenteeism and loss of work days. Improved health can save household and governments scarce budgetary resources on curative services. Better nutrition can break the cycle of intergenerational transmission of malnutrition. Similarly, direct school feeding can promote: (i) education through reduced classroom hunger, better attendance, cognitive development and school readiness; (ii) gender equality by increasing the likelihood of girls remaining in school; (iii) women's employment by freeing their time spent on unpaid domestic work, such as providing midday meals; and (iv) social equity through universal feeding.

However, it also has limitations. Health-nutrition benefits are not automatic, and can even be compromised in cases where take-home dry rations are provided and shared among non-targeted members of the population. Food at school can be an instrument for increasing demand for education, but is not a substitute for supply-side constraints concerned with the availability of teachers, text books or toilets. Without separate provisions for staffing, feeding programmes can interrupt school teaching if teachers are diverted from their main role. In addition, social equity can deteriorate if the food quality is so poor, children from better-off households bring food from home.

A direct food provision alone is not a sufficient condition for poverty reduction. To be effective, the focus of a food provision scheme needs to shift from a food-based approach to a knowledge-based approach as a nutrition status is an outcome of a number of bio-medical and socio-economic processes interacting over time, and is not merely a matter of excess or shortage of specific nutrients. Thus, the non-food (social and lifestyle related) factors that are increasingly present—changing food habits towards highly processed options and spending scarce resources on relatively expensive, but nutritionally poor diets—need to be addressed simultaneously through nutrition education.

Costs and Financing

Direct food investments incur capital costs (infrastructure and equipment), recurring costs (ingredients, transport, conversion costs for converting raw ingredients into cooked food, such as condiments, fuel and staff and administration) and provisions for maintenance (repairs and periodic replacement). An estimated average daily recurring cost per capita in India is 9.4 US cents. The conversion costs are co-financed by the central government and states. However, the state compliance for its expected contribution varies, depending on the level of the state's political commitment. This is reflected in the varying quality of midday meals.

Experience shows that once nutrition becomes a policy priority, resources are allocated automatically from ongoing development schemes. For example, funds allocated to the Employment Guarantee Scheme as well as to rural works, urban development and slum improvement schemes were made eligible for the Noon Meal Programme to cover capital and replacement costs. In addition, local contributions were encouraged for both resource supplementation and community buy-in.

With regard to donor financing, activities aimed at food for education is more readily accepted than those that provide direct food assistance. A greater legitimacy is required for combating hunger to secure donor interest for pre-school ages. In the case of Tamil Nadu, the World Bank provided support for non-food-related costs for pre -school- aged children. Consequently, the families of the children were expected to bear the cost of food.

For the donors and governments alike, hunger is expected to be dealt with in the domain of the household. Longer-term solutions through measures, such as income generation are preferred. However, previously discussed findings that a reduction in poverty does not necessarily translate into corresponding nutritional improvements justify the need for direct food investments. Dual policies in this case are needed to prevent future malnutrition and tackle short-term hunger and malnutrition. Apart from financing, complementary policies are required to harness interministerial synergies and capacity development towards institutional change to maximize value for money.

Conclusion

This brief illustrates that direct nutrition interventions, particularly through targeted feeding programmes can contribute to the realization of the right to food with the potential to address other critical development concerns, such as poverty, hunger-nutrition, health, education and social equity. Inclusion of a school feeding programme in national policy and programming frameworks and processes as exemplified in this study can pave the way for sustained, high-quality services. Similar examples can be found in the cases pertaining to Brazil, Honduras and Kenya.[10] In addition, some examples can be cited involving developed areas, such as the case of Scotland, which introduced school lunches in 2006-2007.[11]

Nevertheless, it also recognizes that the success of such programmes depends on the design and quality of implementation - poor design and implementation can do more harm than good. This point has been acknowledged in the recently passed food bill in India, which proposes a new institutional setup for the food distribution schemes. The bill calls for the establishment of a national

and state food commission in each state for periodic monitoring and effective targeting of beneficiaries to minimize diversion and corruption. A grievance redress mechanism is also planned. Combined efforts are necessary to address other contributory factors in order to make the direct food interventions more effective.[12] This includes ensuring administrative capacities and technical inputs backed by adequate budgets. The fundamental question to ask is whether people should be left malnourished and hungry given that the world has the food stocks, technology and resources. All in all, swift actions must be taken to ensure the right to food in Asia and the Pacific.

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1 This brief was prepared based on the work of Rajivan (2008), with updates on data and developments pertaining to the National Food Security Bill in India.
2 Cambodia, the Lao People's Democratic Republic, Indonesia, the Philippines, Timor-Leste, Viet Nam and Papua New Guinea have incidence of underweight children exceeding 15 percent. See ADB, n.d.
3 See Government of India (2011).
4 According to FAO (n.d.), people who are chronically hungry are undernourished. FAO measures hunger as the number of people who do not consume the minimum daily energy requirement (on average, about 1800 kcal) needed for light activity and a minimum acceptable weight for attained height. This varies by sex and age. From the total calories available, total calories needed for a given population, and the distribution of calories, one can calculate the number of people who are below the minimum energy requirement, and this is the number of undernourished people. No account is taken of protein, vitamin or mineral intake.
5 According to UNICEF (2006), undernutrition is defined as the outcome of insufficient food intake (hunger) and infectious diseases. Undernutrition includes being underweight for one's age, too short for one's age (stunted), dangerously thin (wasted), and deficient in vitamins and minerals (micronutrient malnutrition). Malnutrition refers to both undernutrition and overnutrition.
6 Against a poverty percentage of around 22 percent in 2004-2005, under-five malnutrition was higher at 42.5 percent in 2005-2006, according to the Third National Family Health Survey.
7 Education Guarantee Scheme centres are established in locations where there is no formal school within a one-kilometer radius and a minimum of 15 children in the six to 14 years age group are not attending school. For more details, please refer to Education Guarantee Scheme and Alternative and Innovative Education. Accessed on 7 September 2012.
8 The government of Tamil Nadu was the first state government in India to have officially proclaimed the aim to make a state malnutrition free by 2020 (G.O. Ms. No.55 Social Welfare and Nutritious Meal Programme Department, 8 April 2002).
9 The orders are "interim" but applicable immediately until the final judgment.
10 In Brazil, the school feeding programme is mentioned in the National Constitution; in Honduras, a national congressional bill on school feeding was recently passed; and the 2008 National Nutrition and Food Security Policy of Kenya calls for enhancing and expanding school feeding. For further details, see WFP (2009).
11 Scottish Parliamentary Corporate Body, School (Health Promotion and Nutrition) (Scotland) Bill. Accessed on 26 July 2012.
12 The Prime Minister of India also emphasized the need for a more integrated approach towards tackling hunger in the country by saying "health professionals cannot solely concentrate on curative care. Drinking water and sanitation providers cannot be oblivious to the positive externality of their actions. The school teacher needs to be aware of the nutritional needs of the adolescent girl". See BBC News India (2012).

Acknowledgments

This case study was prepared by Fumie Arimizu. The author would like to thank substantial inputs from Anuradha Rajivan, Elena Borsatti, Ruangkhao Chanchai, Supharat Kaewkhonkaen, Taimur Khilji, Panvipa Lekluanngarm, Niranjan Sarangi, Anyamanee Somboonsabdee, Bishwa Nath Tiwari, Rui Gomes and Yumiko Yamamoto at UNDP Asia-Pacific Regional Centre. The brief also benefited from extensive comments and suggestions from Clovis Freire at Macroeconomic Policy and Development Division, United Nations Economic and Social Commission for Asia and the Pacific and copyediting by Alan Cooper.

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