



Improving Nutrition Outcomes through Food Security & Livelihoods Programmes

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A series of papers on maternal and child nutrition published in the Lancet in 2008 sparked a renewed emphasis on the importance of addressing nutrition in humanitarian and development programmes. The series highlighted a “window of opportunity” between a child’s conception up to the age of two years as a critical time for improving nutrition outcomes and preventing irreversible consequences on human development. These findings led to a number of global initiatives, perhaps the most notable of which is the “Scaling Up Nutrition (SUN)” movement. To date, 46 countries have signed onto the movement, with the Government of Myanmar officially joining the movement on May 15, 2013. In addition to identifying key evidence-based cost-effective interventions¹ to prevent and treat malnutrition, the global SUN Framework has identified integrating nutrition in related sectors as one of the most urgent priorities for addressing malnutrition.

In Myanmar, as in many other contexts, the links between food insecurity and malnutrition are strong. The most vulnerable and poorest households are more affected by undernutrition. The nationwide prevalence of stunting is 35.1% and wasting is 7.9%,² indicative of a serious public health problem by WHO classification. Evidence has shown that dietary diversity is poor among children under 2 years and worse among pregnant and lactating women compared to women who are not pregnant or lactating.³ While poverty reduction, economic growth and agricultural productivity all contribute to better nutrition, in most countries, these factors alone have been insufficient to improve child nutrition outcomes (World Bank 2013). For example, a World Bank-funded analysis from the Mekong Delta in Vietnam showed that the provinces with the highest rice production levels were precisely those with the highest child stunting rates.⁴

Globally, agricultural interventions aimed at improving nutrition have evolved in terms of their focus. Early agricultural interventions focused on food production alone (availability) until the late 1970s when malnutrition was linked to food security rather than food availability. This saw a shift in focus on increasing incomes and livelihoods (access) rather than food production. Subsequently, when research showed that increase in income does not immediately or systematically lead to changes in the consumption of calories (nor is sufficient to improve nutritional status), many interventions in the 1990s started to focus simultaneously on increasing incomes and the intake of nutritious food (utilization) (Masset et al. 2011).

Although undernutrition is clearly associated with food insecurity and hunger, it is distinct from them. Undernutrition is a physical outcome resulting from a variety of factors, including food availability and access but also access to healthcare, sanitation, and childcare practices, among others. Food insecurity describes the socioeconomic circumstances whereby individuals or households are unable to access enough quality food for an

¹ These 13 key interventions are: promotion of breastfeeding, complementary feeding and hygiene (including handwashing); supplementation in vitamin A, zinc (for diarrhea management), multiple micronutrient powders, iron-folic acid for pregnant women, and iodized oil capsules for women; iron fortification of staple foods, salt iodization, deworming, prevention and treatment of moderate malnutrition (6-23 month olds), and treatment of severe acute malnutrition.

² Government of Myanmar & UNICEF, Multi-Indicator Cluster Survey 2009-2010

³ World Food Programme & Save the Children 2014. Unpublished draft report. *Nutrition and Food Security Assessment of the Dry Zone of Myanmar, June-July 2013*,

⁴ World Bank 2011. Unpublished draft report. *Vietnam’s Mekong Delta Region: Malnutrition Amongst Plenty*. Can Tho University. – as cited in World Bank. (January 2013).

active healthy life whereas hunger is a term used to describe estimates in the deficit of food intake for population groups — regardless of whether there is evidence of undernutrition (European Commission 2011).

Through a cross-country analysis of 63 countries, Smith and Haddad (2000) concluded that, in addition to nutrition-specific interventions, actions in other sectors related to nutrition can make significant progress in reducing undernutrition. Conversely, improving nutritional status has also been shown to improve adult productivity. Haddad and Bouis (1991) found that for every 1% increase in height, adults will experience a 4% increase in total agricultural wages. Horton (2003) found that eliminating anemia increased adult productivity by 5-17%.

There are numerous ways, both simple and more complex, through which nutrition can be integrated into different sector interventions, both at the planning and implementation phase. The 2013 Lancet series on Maternal and Child Undernutrition also highlighted nutrition-sensitive programming as a key element in reducing undernutrition. Several key documents, developed by various institutions including the European Commission, Action Contre la Faim, the Food and Agriculture Organisation, the World Bank, and USAID's Infant and Young Child Nutrition (IYCN) project, have provided guidance in this area. Some of the key recommendations are presented below:

Considerations in Planning Nutrition-Sensitive Interventions:

- **Incorporate explicit nutrition objectives** into the project design.
- **Target** most vulnerable groups, including smallholder farmers, poor/food insecure households, women, and households with children under 5 (with a focus on children under 2) and pregnant/lactating women.
- **Measure nutritional outcomes through programme monitoring and evaluation.**
- **Do no harm.** Identify potential negative nutritional effects of an intervention, such as disruption of childcare due to project activities, and develop a mitigation plan.
- **Consider women's workload, time use and control of income,** and the effect they can have on child care capacity, maternal energy use and resource allocation, in project design.

Examples of Nutrition Entry Points for Food Security and Livelihood Interventions:

- **Increase production of nutritious varieties of local foods**
- **Implement home & school gardens**
- **Diversify crops** including more nutritious varieties
- **Incorporate education related to basic nutrition, health and hygiene** in project activities, including the importance of dietary diversity through consumption of nutritious foods produced or locally available (including wild foods and insects)
- **Improve market access** especially for nutritious foods for which smallholders may have a comparative advantage
- **Improve local food processing/preservation/storage** to allow for access of nutritious foods year-round
- **Improve food utilisation through cooking demonstrations**
- **Manage natural resources** to improve productivity and equitable access to resources through soil, water and biodiversity conservation
- **Introduce biofortified crops** into agricultural research and technology dissemination programs, , such as the micronutrient-dense orange-flesh sweet potatoes
- **Promote consumption of animal products** in livestock and fisheries interventions
- **Implement safety net and social protection mechanisms that support and protect nutrition outcomes** (such as using fresh food vouchers, conditioning cash transfers on the use of health/nutrition services, and taking into account the cost of a nutritious diet when determining the amount of cash transfers)

The measurable evidence demonstrating the impact of agricultural interventions on nutrition outcomes is currently mixed and demands that collaborations such as LIFT and LEARN prioritise well designed and comparable studies and impact assessments to be able to draw robust conclusions. A systematic review of literature on agricultural interventions that aim to improve children's nutrition status (Masset et al. 2011) found little evidence on the impact of agricultural interventions on the diet of the poor. The review did find, however, that interventions were successful in promoting consumption of specific foods. Furthermore, the authors concluded that the lack of evidence "should not be attributed to the inefficacy of these interventions...rather it is the lack of power of the studies reviewed that could have prevented the identification of such impact, if any" (p.5). They conclude by recommending that more rigorous impact evaluation studies be conducted. To ensure maximum impact on nutritional outcomes of food security and livelihoods interventions, further research in this area, including context-specific research, should be made a priority by implementing organisations, research institutions and donors.

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