

ADDRESSING MALNUTRITION MULTISECTORALLY

What have we learned from recent international experience?



CASE STUDIES FROM | PERU | BRAZIL | BANGLADESH

F. James Levinson and Yarlina Balarajan
with Alessandra Marini on the Peru Case Study

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The cover illustration, 'A village landscape of multisectoral nutrition', was specially commissioned for this publication. Produced in traditional Bangladeshi folk art style by Farzana Ahmed Urmi, a pre-eminent artist of rickshaw paintings in Dhaka, the landscape captures the multiple sectors working together in nutrition. At the centre of this picture sit a pregnant woman and a lactating mother breastfeeding her infant, both underlining the importance of good nutrition in the critical 1,000 day window – from the onset of pregnancy to the child's second birthday. Primary multisectoral nutrition-sensitive actions such as agriculture (including a kitchen garden), education, health and water and sanitation also converge in this peaceful village scene.

The authors thank Luc Laviolette and Alan Berg for the challenge of trying to capture the concept of multisectoral nutrition in art, and Delwar Hussain and his daughter Nafisa for their active role in transforming this idea into reality.

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FOREWORD

In April of 2013, the Government of Spain hosted a high-level meeting in which representatives from governments, the United Nations and international experts in the fight against hunger, malnutrition and food insecurity discussed what has been done, what is being done, and what could be done in the future to eliminate two of the world's largest burdens: poverty and hunger.

Since the Millennium Development Goals were adopted, Spain has demonstrated a strong political commitment to the MDGs, placing them at the center of its development policy. In this regard, Spain signed an agreement with UNDP on behalf of other UN agencies, which created the MDG Achievement Fund (MDG-F). This commitment remains strong, and Spain is actively participating in the global debate on the post-2015 agenda, offering its extensive experience in the area of cooperation. The fight against hunger must continue to be included as a priority for development policy.

This document is the product of the joint efforts of the MDG-F and UNICEF to generate knowledge and provide evidence-based solutions for how to take a comprehensive look at the problem of malnutrition and food insecurity. The MDG-F's experience is an innovative effort of the UN system to promote integrated solutions to food insecurity and malnutrition. By bringing together the expertise of various UN agencies, the MDG-F programmes have put in place multisectoral approaches that include important issues such as nutritional education, equality and empowerment of women, agricultural production and health issues, among others.

I want to thank the authors, as well as the Secretariat of the MDG Achievement Fund and UNICEF's Nutrition Section, for their leadership on this publication and for their valuable contribution to future development agendas. The fight against poverty is one of the greatest challenges of our time, one for which we must be more united than ever. In short, we face an enormous challenge that demands the commitment and effort of all of us.

Gonzalo Robles
Secretary-General of International Development Cooperation, Spain

PREFACE

The Millennium Development Goals Achievement Fund (MDG-F, www.mdgfund.org), established in 2007, is one of the largest and most comprehensive development cooperation mechanisms devised to support MDG attainment. Through its 130 joint programmes in 50 countries and eight different thematic areas, the MDG-F has gathered valuable and unique knowledge on how countries can advance their development goals through joint efforts that engage different UN agencies, governmental institutions, the private sector, communities and civil society entities.

The MDG-F's approach, anchored in the principles of national ownership, the coordination of efforts by UN agencies and a multidimensional perspective in its development programmes, has proved to have an impact on people's lives throughout the world. Some indicators validate this: Since the Fund was established, 190,000 people received job training; 540,000 people accessed safe, affordable drinking water; 625,000 women and girls gained access to violence prevention and protection services; 1.6 million children have benefitted from nutrition interventions; and 14.3 million young people were helped by new youth employment laws.

The Children, Food Security and Nutrition thematic area was the largest of the MDG-F and received over US\$ 135 million to support 24 joint programmes, implemented through the collaboration of several UN agencies (UNICEF, FAO, WFP, PAHO/WHO, UNDP, ILO, UNIDO, UNESCO, UNFPA, UNODC and IOM). This significant investment in child nutrition reflects the MDG-F's recognition of the critical importance of child nutrition to attaining the Millennium Development Goals. The joint programmes cover a broad range of interventions, ranging from agriculture to health, in regions with very different epidemiological and ecological contexts.

The joint programmes of the MDG-F purposefully promote multisectoral coordination. Through this experience, multiple stakeholders have been brought together to design and implement integrated programmes to jointly address food security and nutrition. This paper, commissioned by the MDG-F Knowledge Management Initiative, led by UNICEF, comes at a time when there is renewed interest in multisectoral coordination for nutrition. Examining the experiences and lessons learned from three countries where MDG-F joint programmes were implemented, Peru, Brazil and Bangladesh, provides important lessons for future joint programming efforts and national programmes seeking to tackle both food security and nutrition more equitably. These lessons are especially relevant in the current context, in which the global development agenda post-2015 is being created.

MDG Achievement Fund Secretariat

EXECUTIVE SUMMARY

A multisectoral approach to nutrition was a central tenet of nutrition programming in the 1970s but was considered, at the time, overly ambitious and too dependent on other sectors reluctant to be coordinated. The approach has, however, returned to the forefront of nutrition activity in recent years. This development is due to increased awareness of the critical role of nutrition to child survival and the importance of nutrition more broadly to attaining the Millennium Development Goals. The nutrition community now also increasingly recognizes the need to address nutrition problems directly (through nutrition-specific interventions primarily based in the health sector) and to tackle the determinants of nutrition through nutrition-sensitive interventions in other sectors.

With growing interest in multisectoral nutrition in many countries, this paper seeks to present the experience and lessons learned from three countries that have wrestled seriously with the concept for at least the past decade – along with briefer summaries of other national multisectoral nutrition experiences. The three cases presented –Peru, Brazil and Bangladesh–, while contrasting in many ways, offer lessons that, in the end, are not dissimilar.

In Peru, after a decade of non-achievement in reducing malnutrition, a remarkable advocacy effort in 2006 led to a major multisectoral nutrition initiative, coordinated first at the supra-sectoral level, but then by a line ministry given responsibility and active support by the country's president. Perhaps most significant was the identification of target districts based on nutrition vulnerability and the requirement that related sectors carry out 'convergence' programming, major sectoral activity in these same areas, targeted to low income households and permitting both direct and nutrition-sensitive interventions. The resulting synergistic benefits led to an impressive four percentage point reduction per year in stunting in the districts reached. Peru was successful in utilizing two other important and transferable concepts: performance-based budgeting and results-based incentives to local areas.

In Brazil, beginning in 1988, nutrition was the beneficiary rather than the driver of government action focused on Zero Hunger, a major government effort to reduce poverty and inequity in the country. Although the word 'nutrition' was sometimes used in government documents, nutrition projects per se were, initially, clearly peripheral to the Zero Hunger effort. Brazil, similar to Peru, was highly successful in utilizing the convergence approach of multisectoral interventions in targeted areas. Additionally, it followed the line ministry coordination example of Peru but again with sustained presidential commitment to that ministry. And like Peru, Brazil had major success in generating local government activity through target-based financial incentives.

Bangladesh carried out major community-based programmes from 1996 to 2011, although political support and commitment to these programmes varied. In the first of these, the Bangladesh Integrated Nutrition Project (BINP), which operated from 1996 to 2003, the community-based component was coupled with an intersectoral element including garden and poultry support to low income families in the same areas. These community-based programmes were terminated in 2011 and replaced by the National Nutrition Service, a health sector-based programme seeking to mainstream nutrition into each of the health sector services while coordinating multisectoral nutrition activity through a steering committee that meets periodically. This paper examines these two successive approaches and then a third, perhaps most promising of all: multisectoral nutrition interventions concentrated in vulnerable areas, following the convergence approach, without being overly obsessive about coordination.

Three major findings emanate from the case studies. First, the value of the convergence approach, where combined nutrition-specific and nutrition-sensitive interventions are jointly targeted to vulnerable geographical areas and populations within them; both the concept of convergence and what this means in practice are explored further in the case studies and discussion. Second, the importance of results-based incentives to sub-national governmental bodies with elected officials, to encourage more proactivity and accountability for results relating to the reduction of malnutrition. Third, the importance of active and sustained civil society advocacy. At the policy level, this advocacy serves to ensure political and administrative commitment to nutrition and food security (addressing the two simultaneously has multiple advantages); at the programmatic level, it helps to ensure adequate budgeting, well-designed and implemented programmes and programme impact that addresses the needs of the population.

The findings from the case studies and a historical review of working multisectorally in nutrition in varied country contexts can be used to inform this new era of multisectoral nutrition programming. The lessons learned relate to the institutions and politics of working multisectorally; systems to promote vertical and horizontal coordination; and multisectoral programme design and monitoring and evaluation. This study confirms the principle of “Plan multisectorally, implement sectorally, review multisectorally.” Yet multisectoral coordination cannot be a substitute for well-designed and ideally convergent programmatic action.





CHAPTER 1:

INTRODUCTION



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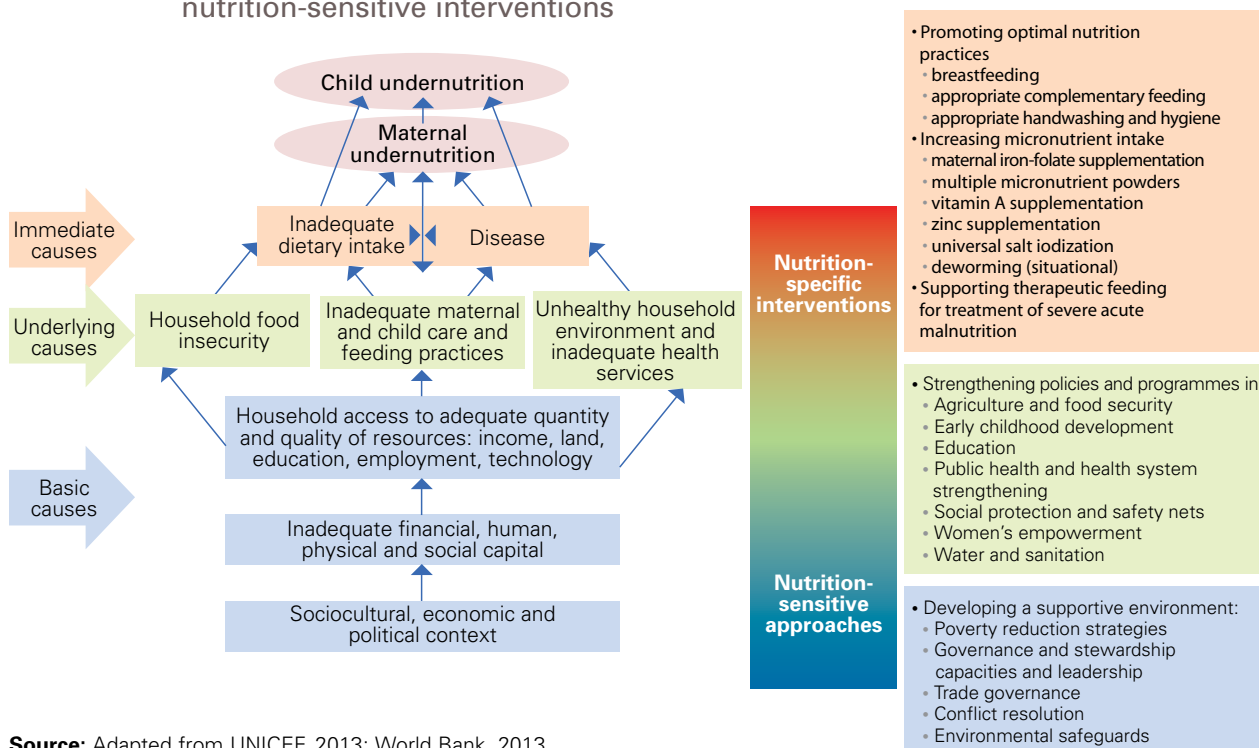
This paper seeks to offer some practical guidance to countries as they set out to develop multisectoral nutrition initiatives. Looking back at the previous era of multisectoral nutrition work and at an array of contemporary experiences will hopefully provide useful lessons, and perhaps a few shortcuts, that can facilitate the process for countries currently initiating such programmes.

The paper is structured as follows: Chapter 1 introduces the subject and provides an historical overview of country experiences with multisectoral nutrition. Chapters 2, 3 and 4 review the lessons learned from three major multisectoral country programmes: Peru, Brazil and Bangladesh. Finally, Chapter 5 synthesizes the lessons learned from the country experiences and makes recommendations for moving forward with multisectoral approaches for nutrition security.

Multisectoral nutrition programming has been of interest to the international nutrition community since the 1970s. Such interest emerged initially from understandings of the diverse causality of malnutrition, the importance of addressing causes and not simply manifestations, and of stressing integrated

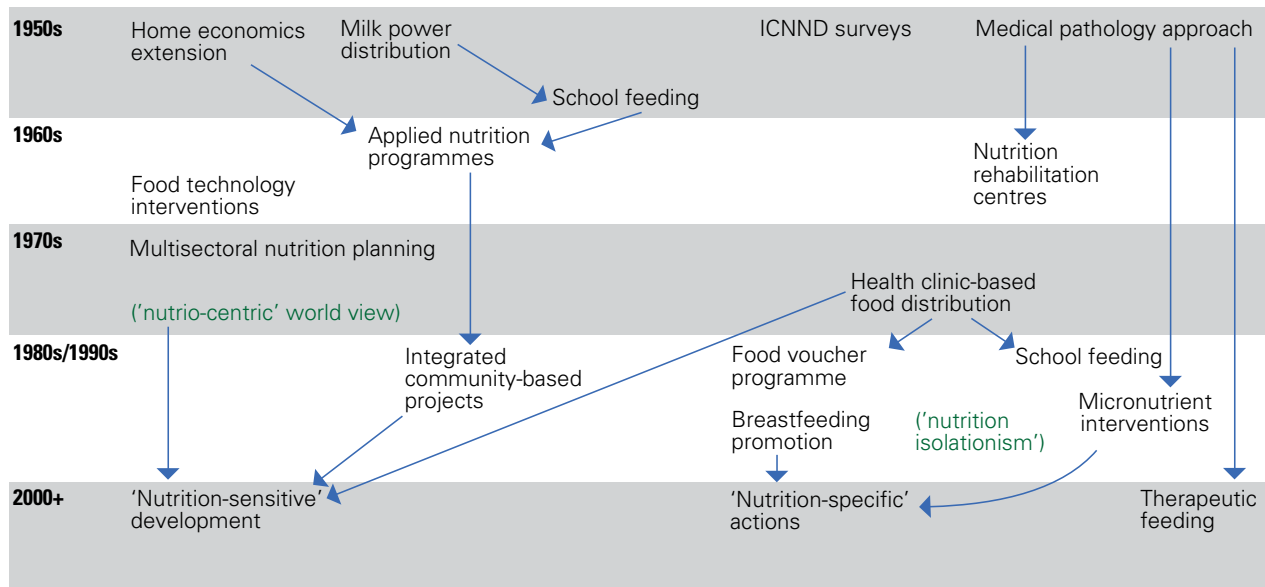
systems rather than simply technical fixes (Figure 1). Interest arose also, in part, because international development specialists, examining the world food crisis of those years and recognizing the importance of combating malnutrition, distrusted the ability of nutritionists –and even health ministries– to address

FIGURE 1 UNICEF conceptual framework and nutrition-specific and nutrition-sensitive interventions



Source: Adapted from UNICEF, 2013; World Bank, 2013.

FIGURE 2 Evolution of nutrition intervention approaches over time



Note: ICNND = Interdepartmental Committee on Nutrition for National Development.

Source: Authors and Anna Herforth.

the problem adequately on their own. The slogan “Nutrition is too important to be left to nutritionists” was bantered widely.

Multisectoral nutrition planning, as it related to both policy and programme development, also fit well into the high premiums placed by the international development community on centralized planning processes during the 1970s and on the importance of integrating initiatives such as nutrition into broader international development processes. Efforts at integration, as a result, often included highly elaborate causality models, most proving too unwieldy for those expected to utilize them (Jonsson, 2009).

The enthusiasm for international nutrition planning led to the creation of multisectoral nutrition planning units in 26 different countries during the decade of the 1970s. Not always headed by nutrition or health professionals, these units, operating with what has been called a ‘nutrio-centric’ view of the world, expected that officials from other sectors –agriculture, food, rural development, education, water and

sanitation as well as health– would be willing to reorient a portion of their activities to better address malnutrition causes and thus contribute to broad-based nutrition improvement. When that willingness did not manifest itself and, as a result, the nutrition units began to disappear, and when an understanding evolved that multisectoral nutrition just did not work, nutritionists reasserted their pre-eminence and introduced a period commonly referred to as ‘nutrition isolationism’. The sometimes petulant undertone of the new period implied that “If they won’t cooperate with us, we’ll do it ourselves,” with what we now refer to as nutrition-specific interventions (community nutrition, micronutrients, growth monitoring promotion, breastfeeding promotion, child feeding) that did not require multisectoral involvement.

Figure 2, which seeks to encapsulate the historical progression of nutrition interventions, suggests that the appearance of multisectoral nutrition planning in the 1970s came, in part, as a reaction to the ‘supply-oriented’ interventions of the 1950s and 1960s (i.e., food distribution programmes, the ‘applied nutrition



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programmes', food technology 'magic bullets') and led, after several decades, to the present day 'nutrition-sensitive' approaches.

The opportunity to look back at this historical progression is particularly instructive to an examination of multisectoral nutrition, given the nutrition community's vacillation between narrower and broader approaches to its problem solving. The near exclusive focus on micronutrient interventions from the mid-1980s to the mid-1990s represented perhaps the pinnacle of the narrower perspective. Programmatic activity at present may best represent nutrition's broader perspective.

In retrospect, there is general agreement that the multisectoral nutrition planning approach of the 1970s was, perhaps, presumptuous, assuming that the identification of malnutrition determinants followed by systematic rigorous planning would lead to a positive political response and to consequent governmental action, coordinating ministries around the 'master nutrition plan' (Hoey and Pelletier, 2011).

The early case studies summarized below also reflect combinations of inadequate institutional capabilities and a common reluctance among key sectors to sacrifice autonomy in the interest of a larger common purpose. Without high-level political commitment and direction, success in these multisectoral nutrition efforts was, at best, short-lived.

Now, forty years later, interest has been rekindled in multisectoral nutrition. This time, the stimulus has been broader based, triggered in part by the now universally acknowledged understanding that undernutrition is associated with almost half of child deaths internationally, and, more broadly, by the international focus on Millennium Development Goals – and the fact that nutrition, used as an indicator for one of the goals, is inextricably connected to at least five of the others. With a revived interest in nutrition and new alliances formed –perhaps most notably the Scaling Up Nutrition (SUN) initiative, the UN's REACH mechanism, the World Bank's SecureNutrition platform and the USAID-supported Feed the Future initiative–, it has become better



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understood that combating malnutrition requires not only nutrition-specific interventions (the array of now evidence-based interventions generally emanating from health ministries and relating primarily to young children and reproductive-age women),¹ but also the aforementioned nutrition-sensitive interventions that address the broader causes of malnutrition and, in turn, require key inputs from other sectors.²

Accordingly, a new set of multisectoral nutrition initiatives with active, organized donor agency support have been developed. The joint programmes of the Spanish Government-funded MDG Achievement Fund (MDG-F) epitomize the broader multisectoral approach to improving food security and nutrition. Through the MDG-F experience in 24 countries, UN agencies have come together to jointly design and implement programmes, working closely with national governments, as well as non-governmental organizations and civil society. This innovative experience has actively promoted coordination and cooperation among sectors.

Understanding of current efforts to address nutrition multisectorally have been aided considerably by three important initiatives: (1) the Cornell University studies on mainstreaming nutrition; (2) the efforts by the Institute of Development Studies to analyse nutrition governance in six countries; and (3) the International Food Policy Research Institute (IFPRI) volume *Working Multisectorally in Nutrition*,

examining principles and practices and utilizing case studies from Senegal and Colombia. Also of enormous value is the World Bank 2013 report *Improving Nutrition Through Multisectoral Approaches*, which provides the most detailed discussion of nutrition-sensitive agriculture and social protection to date. While there is much attention afforded to multi-sectorality, however, there is still ambiguity and different interpretations of what this means (perhaps compounded by the terminology),³ and how multisectorality in nutrition can be operationalized in practice.

Country experiences with multisectoral nutrition planning in the 1970s and 1980s

The enthusiasm for nutrition planning in the 1970s led, as indicated, to multiple efforts to utilize the concept across sectors. Nearly all of these were short-lived. The most notable were efforts in Colombia, Sri Lanka and the Philippines, which are briefly summarized below:

Colombia – Broad-based multisectoral action dislodged by government change

The most ambitious multisectoral nutrition-related undertaking in the 1970s was initiated by the López Michelsen administration in Colombia in 1974. Like the Zero Hunger initiative in Brazil thirty years later, Colombia's National Food and Nutrition Plan (*Plan de Alimentación y Nutrición*, PAN) set out to boost incomes of low income households. The PAN programme included rural credit and assistance to agricultural cooperatives, and agro-industry to generate employment and provide substitutes for imported commodities. The health sector provided *promotores* (advocates) who significantly broadened the delivery of services. Perhaps the largest single activity was a well-targeted food coupon programme provided for mothers and young children in poor families and in geographically targeted areas, the latter facilitated by a highly detailed 'poverty map' of the country. In total, roughly ten per cent of the country's households received PAN assistance, although 40 per cent of households gained access to clean water through the programme. External assistance was provided by the World Bank and USAID.

The planning of PAN was carried out by the National Planning Department, but the programme had no formal administrative coordinating mechanism. It functioned through mutually supportive interaction as needed by the ministries implementing the agriculture, health, education (behavioural change efforts relating to childhood diarrhoea and to breastfeeding, plus technical training) and water-related activities, with political support from the Office of the President and technical and physical inputs provided by research organizations and the private sector. A local area was not considered covered unless services from at least three different sectors were being provided – making PAN perhaps the first multisectoral programme to address the possibility of synergistic impacts through multisectoral convergence.

An insightful case study of PAN by Uribe-Mosquera (1985) notes that the programme avoided many of the traditional pitfalls of large programmes: it kept programme costs below one per cent of the national budget and imposed low administrative costs; it avoided distortions in resource allocation –only 15 per cent of its budget was financed by external assistance, thus avoiding external pressures–; and it avoided the accusation of paternalism and dependency creation by limiting its coupon subsidies to 50 per cent. PAN also was incorporated into the country's national development plan. Programme optimism led the daughter of the president to voice her conviction that PAN would survive political change and become a permanent part of Colombia's development agenda.⁴

Her prediction proved overly optimistic. PAN was significantly weakened with the change of government in 1978, and the remaining fragmented programme was terminated altogether four years later. Uribe-Mosquera's analysis identifies several primary explanations beyond the tendency of new administrations to make their own imprint on development strategy:

- The planning of such a multisectoral endeavour by the National Planning Department infringed upon the autonomy of the sectoral ministries, which also received relatively little in the way of incremental funding.

- Although PAN had roots extending vertically to the regional level, there was no administrative apparatus or indeed understanding of the programme at the sub-regional level.
- With a growing deficit and a budgetary squeeze in the late 1970s, there was no pressure from civil society to support and encourage continuation of PAN activities. At the same time, the poor and politically unorganized beneficiaries of the programme lacked the necessary power base to campaign on their own behalf.

As described below, both Brazil and Peru learned these three lessons well.

Uribe-Mosquera concludes his case study of the PAN programme as follows:

PAN's divestment is an illustration of the processes whereby the prevailing forces of the political economy actively resist and hack at the integrated nutrition 'intruder' until, largely bereft of its original content, it can more easily fall prey to the country's periodic winds of change (Uribe-Mosquera, 1985).



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Sri Lanka – A broad-based but ‘nutrio-centric’ effort creating inter-ministerial resentment

Sri Lanka also bought into the concept of multisectoral nutrition planning beginning in the early 1980s. Using a model later adopted in Peru and Brazil, the president of the country selected a favoured line ministry, in this case, the Ministry of Plan Implementation for which the president himself served as minister. Within the ministry, a Food and Nutrition Policy Planning Division (FNPPD) was created. The Division took on the responsibility for a Comprehensive Food and Nutrition Plan and other important planning strategies combining nutrition interventions with nutrition-sensitive actions in the agriculture and food sectors. The former included supplementary feeding and community-based programmes called ‘nutrition villages’. The latter related to wage rates, agricultural prices, an indexing of the value of food stamps and income generation in the production of subsidiary crops.

The demise of FNPPD and multisectoral nutrition in Sri Lanka emanated in part from friction with a Ministry of Health simply unwilling to take directions

from a division of a peer ministry – a division headed, no less, by an agronomist rather than a person with medical training. Tensions reached the breaking point when FNPPD, with a mandate limited to coordination, took on, in frustration with the health ministry’s inaction, responsibility for some programmatic interventions that logically belonged in health.

A second problem was the absence of sustained commitment to FNPPD at senior government levels with a change of administration (but not of political party). A painful reflection of this disregard was the complete exclusion of FNPPD from deliberations of a new ‘Janasaviya programme’ of income transfers to targeted families, replacing the food stamp and other welfare programmes – a programme with huge implications for food consumption and nutrition.

When the Ministry of Plan Implementation was merged into the Ministry of Finance and Planning in the late 1980s, FNPPD was quietly terminated. As in the case of Colombia, with no civil society or political base, and with bad feelings across the sectors, the programme’s demise was met without a whimper of dissent (Levinson, 1995).



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Philippines – Politically motivated and narrowly focused, with sensitization of sub-national officials and civil society

In the Philippines, no such inter-ministerial conflict arose, primarily because the programme, although using the then popular multisectoral language, limited its scope essentially to the health sector.⁵

What was significant in the Philippines case was not horizontal but rather vertical. President Ferdinand Marcos, needing a high visibility addition to his 'New Society' programme in 1974 after the failure of his land reform initiative, gravitated to nutrition, latching on to a major need in the country and a supportive international climate. Anxious to generate political support in the process, Marcos placed responsibility not with a central government ministry but rather with sub-national nutrition committees headed by governors or mayors who were encouraged to carry out their own planning.

Initial local enthusiasm waned, however, when local authorities realized that substantial central government funds would not be forthcoming. (The president, by way of response, used terms like 'financial self-reliance'.) The result was short-lived projects rarely targeted to groups in greatest need, and often concentrated in urban or peri-urban areas. The one positive result of the experience was a sensitization of sub-national officials and civil society to the problem of malnutrition, providing a kind of constituency that was wholly lacking in Colombia and Sri Lanka. As a result, these nutrition activities in the Philippines lasted long after those in Colombia and Sri Lanka had been terminated.

Evolution to contemporary multisectoral nutrition: Nutrition-sensitive interventions

Arguably the most important evolution in thinking between multisectoral nutrition work in the 1970s and more contemporary efforts is the crystallization of thinking about nutrition-sensitive interventions – those addressing important determinants of malnutrition, which serve as a complement to the nutrition-specific interventions usually undertaken by



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a ministry of health, and those seeking to address and prevent malnutrition directly.

In the 1970s, efforts focused on involving non-health sectors, seeking a slight refocus of their activities (e.g., trying to get poultry producers to provide some eggs to women and children in their families) or a geographic convergence with growth monitoring and promotion, supplementation and/or behaviour change communication efforts – as in the case of Colombia. More recent multisectoral efforts have sought to focus on these nutrition-sensitive interventions more directly, seeking to identify those likely to have the greatest nutrition or household food security impact as well as the conditions under which they are likely to be most effective. In the agricultural sector, for example, nutrition-sensitive interventions have often focused on employment generation, production and dietary diversity, and on improving the efficiency of agricultural tasks normally performed by women,

making these less arduous and freeing up time for childcare.

Additionally, the inadequate political support provided to multisectoral nutrition in the 1970s resulted in part from an inadequate understanding of the relationship of malnutrition problems to a country's longer term political and developmental interests. Unlike the Zero Hunger and Zero Malnutrition efforts of the present day, there was limited understanding in the 1970s of the role of nutrition in broader efforts to reduce poverty and social inequities. At the same time, there was no compelling hook to engage civil society or political forces and, with the partial exception of the Philippines, virtually no effective demand for nutrition at local levels, which perceived shortness in height as no cause for alarm.⁶

There is general consensus today that the most important sectors needed in multisectoral nutrition efforts are health, agriculture, food security, education, water and sanitation, and social protection/poverty reduction. There is a further understanding that the environment, gender⁷ and private sector are cross cutting issues affecting activities in each of the sectors (World Bank, 2013).



Yet there is no assurance that simply involving multiple sectors will produce the desired result. This is perhaps seen most clearly in the case of multisectoral AIDS projects in Africa, where the number of sectors and actors involved (usually health; water, sanitation and hygiene–WASH–; and education) have often had the effect of reducing clarity and specificity on the role of each sector, and where donor support has seldom encouraged the necessary cooperation in planning and review (World Bank, 2009).

Part of the problem, as well illustrated by the Sri Lanka example from the 1970s and several of the contemporary examples cited below, is that planning and budgetary allocations in governments are carried out sectorally, as is accountability and review. In order for multisectoral nutrition undertakings to work, a critical minimum of both planning and review need to be carried out multisectorally even as implementation is done sectorally. The Peru and Brazil cases illustrate, at least in part, the functioning of that principle.

The World Bank publication referred to earlier, *Improving Nutrition Through Multisectoral Approaches*, presents both theory and experience relating to nutrition-sensitive interventions. Selected examples taken from this publication are presented in the appendix.

Recent country experiences with multisectoral nutrition

Summarized below are recent descriptions of multisectoral efforts in Senegal and Colombia (Garrett and Natalicchio, ed., 2011), in Cape Verde,⁸ in Bolivia (Hoey and Pelletier, 2011), in Thailand (Tontisirin and Winichagoon, 1999), in Haiti (communication from Julie Ruel Bergeron, World Bank) and in Guatemala (Strengthening Partnerships, Results, and Innovations in Nutrition Globally Project, SPRING, 2013).

Important nutrition governance case studies in Ethiopia, India and Zambia carried out by the Institute of Development Studies (2012) found a

distinct absence of multisectoral nutrition planning, implementation or review. The explanations common to most developing countries are a combination of strong sectoral autonomy, donor assistance rarely crossing sectoral lines, inadequate capacity, the lack of a policy mandate from senior levels of government and the absence of civil society advocacy.

Senegal – Limited scope but effective local level integration

Senegal's *Programme de Renforcement Nutritionnel* (Nutrition Enhancement Programme, NEP), established in 2001, was designed to stimulate, complement and, where possible, coordinate nutrition-related programmatic action of line ministries, and was, in fact, successful in reducing undernutrition in programme zones by a reported 42 per cent in its first phase (2002–2006). NEP moved Senegal away from its earlier primary reliance on food distribution and toward increasing attention to malnutrition prevention. The programme, consistent with Senegal's serious commitment to poverty reduction and to meeting its MDG goals, received active financial and strategic planning assistance from the World Bank and was aided by the interest in nutrition of the country's First Lady.

In terms of multisectoral action, activity in NEP has been limited, to date, to activities of the Ministries of Health and Education: nutrition-specific activities (growth monitoring and promotion, vitamin A and oral rehydration salt distribution, food fortification and behaviour change communication) and school health and nutrition. A Coordination Unit for the Reduction of Malnutrition, attached to the Office of the Prime Minister, has both operational (allocating and managing resources) and coordinating responsibilities, the former carried out through the National Executive Bureau (BEN).

Perhaps most important about the Senegal case is its implementation at the sub-national level. The Regional Executive Bureaus under BEN, working with local governments, determine their own implementation plans which are then implemented with the assistance of community-based NGOs. This approach –making local governments pro-active in



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nutrition-related activity rather than simply conduits for top-down programming– emerges in this paper as a key ingredient to successful multisectoral nutrition programmes.

Colombia – A case of sub-national multisectoral planning and programme development with common sense decision-making and transparency

A far cry from the PAN programme of the 1970s (described above), one of Colombia's 32 departments, Antioquia, developed a Food and Nutrition Improvement Plan (*Plan de Mejoramiento Alimentario y Nutricional de Antioquia*, MANA) in 2001, triggered by the determination of a Gandhi-inspired governor to reduce social inequities and malnutrition-related child mortality. The programme now covers all 125 municipalities in the department. Broader-based than the Senegal programme, MANA includes the Ministry of Agriculture (responsible for food security surveillance and nutrition-sensitive production projects) as well as the Ministries of Health and Education.

The programme is coordinated in the Ministry of Health but with a coordinator responsible to the governor and with equal representation of the associated ministries. Implementation agreements exist with NGOs, the private sector and with academic, farm

production and regional development organizations. MANA's success appears to be due in large part to a series of common sense principles:

- Practical issues relating to implementation and to coordination have been resolved at the technical rather than the political level. And regional teams are comprised simply of six members, each responsible for one of the six programme components.
- MANA, with a budget derived both from the national budget and from petroleum production royalties, is able to facilitate sectoral programmes while giving credit to the sectoral ministries themselves.
- Regional implementing teams have helped to develop local capacity and, ultimately, the creation of municipal food and nutrition security plans.
- MANA places a high premium on transparency through public reporting and with a focus on results – public measurement of progress in achieving pre-determined goals.



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Cape Verde – Multisectoral action stemming from activity in a single sector

Beginning in the late 1970s, Cape Verde has had a school feeding programme supported by WFP with FAO, WHO and UNICEF assistance. Originally a WFP food aid activity, the programme became locally financed when the country's economic growth rendered it ineligible for WFP support.

As with most school feeding programmes, the Cape Verde programme was originally established to encourage school enrolment and attendance, and, indirectly, provide social protection assistance to low income families.

Increasingly, however, as primary education became nearly universal in the country, and enrolment and attendance became less important objectives, the programme began focusing on the quality of the food being provided to the school children. Initially simply a matter of ingredient purchases and food preparation, and some consideration of school gardens, this concern soon evolved into a major collaborative effort between the Ministries of Education and Agriculture.

Multiple workshops were held, Brazilian technical experts⁹ were provided by partner organizations and contracts were developed with local farmers to produce a greater diversity of food commodities for the schools. This attention to food diversity and nutrition soon led to inclusion of such subject matter in school curricula, and school gardens now focused on diversity-centred education as much as on production. The initiative coincided with the initiation of a major irrigation programme designed to increase production of high value crops – in a country that had been characterized by particularly low vegetable and fruit consumption.

These efforts dovetailed well with the growing recognition in the country of its rapidly increasing prevalence of overweight and obesity – a problem often encountered in island nations. An exercise programme for adults and children now exists, and consideration is being given to the monitoring by school children of home food consumption, exercise and sedentary activity.

Bolivia – Initial political support that proved unsustainable

The Hoey-Pelletier analysis of Bolivia's Zero Malnutrition (ZM) programme, modelled on the Brazil initiative, suggests that even with political leadership (ZM was announced by President Evo Morales in 2006), this multisectoral effort lacked a careful analysis of the multisectoral determinants of malnutrition and suffered from conflicting agendas of the development partners.

The ZM initiative developed an integrated phased plan with targeting based on food insecurity and malnutrition levels (but without details on specific activities or timelines), procured donor assistance and attempted to create ZM councils at sub-national levels. After two years of success, primarily with health sector interventions,¹⁰ however, political attention shifted to more immediate issues, high level support waned, and with it active involvement at the mid-levels of government and among local officials. Unlike Peru and Brazil, there was no solid core of civil society or political support to maintain the momentum.

Thailand – Addressing supply side services and community development sequentially, both multisectorally

Thailand has been successful in reducing stunting from 25 per cent in 1987 to 16 per cent in 2005–2006, which, while not as impressive as Brazil or Peru, is still an important accomplishment.

Although there is no indication that sequencing was the result of intentional forethought, the nutrition-related development process in Thailand proceeded in two distinct phases, both of which were pursued multisectorally. The first, beginning in the late 1980s, was a top-down poverty alleviation strategy that was successful in reducing poverty from 33 per cent to 11 per cent in eight years. This strategy was accompanied by a three pronged nutrition strategy, also top down, which focused on improved primary health care facilities, a more effective mechanism to improve maternal and child care practices and increased production of fish, chicken, vegetables and fruits.



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There is no record of close intersectoral coordination between the health and agriculture ministries in this first phase, a supply-oriented initiative. But the decision to include an agricultural production effort as a central component of a nutrition strategy was significant at the time.

This top down supply-oriented phase was followed in the late 1990s by a new nutrition strategy, this one focused primarily at the community level and including community involvement in needs assessment, planning, beneficiary selection and activity implementation, and local financial contributions. The role of the national government in this second phase was primarily in the provision of strong technical support, again primarily from the health and agriculture ministries, and by the conduct of a national situation analysis.

Village level volunteers, mobilizers and committees were supported by local agriculture and health officers serving as facilitators. Among the community-based activities undertaken were growth monitoring and promotion, nutrition counselling, micronutrient provision and community-based production of complementary food for malnourished children and children from food insecure households (Tontisirin and Winichagoon, 1999).

Haiti – Multisectoral cooperation at the community level

Nutrition services in Haiti, as in many developing countries, have suffered from fragmented donor-driven services characterized both by duplication of services and, in some areas, a complete absence of services. Stunting affects over one third of young children. Separate community agents working under specific projects and paid by these projects provide single services (e.g., bed nets, specific vaccines, micronutrient supplements).

A new Household Development Agent programme, supported by the Japan Trust Fund, has been designed to enable single agents, recruited from the communities in which they work, to provide multiple services (health, nutrition and social services) utilizing the concept of a minimum package of services, supplements and medications. These agents are paired with professional enumerators who score households on a family vulnerability index based on demographic, health, economic, food security, education and living environment indicators. The index score determines prioritization and frequency of household visits by the agent.

The Household Development Agent programme was announced by the president in January 2012 for replication throughout the country.

Guatemala – Co-location of activities in targeted areas

The agriculture and nutrition programme Western Highlands Integrated Program of Guatemala (with the unfortunate acronym WHIP), organized by the USAID-funded SPRING project in collaboration with government departments and municipal development committees, seeks to reduce chronic malnutrition through combinations of ‘1,000 day interventions’, disease reduction, agriculture and education components with special attention to local governance. The programme, initiated in 2013, seeks to co-locate a large number of U.S. government-funded activities in 30 targeted municipalities (utilizing the convergence approach discussed in the following case studies) in this area of high social exclusion, which has been dominated by export-oriented production.

By linking nutrition with poverty alleviation, the programme takes advantage of the growing governmental commitment to reduce hunger and social



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inequities. It builds on income generation through rural value chain activity with a particular focus on women using, for evaluation purposes, a Women's Empowerment in Agriculture Index (WEAI).

Introduction to the case studies ¹¹

The three major country programmes examined in detail in the following chapters differ considerably in their approaches (*Box 1*). In the case of Peru, the government, with donor encouragement and with the assistance of a remarkable civil society coalition, embarked on a programme in 2006 designed to reduce malnutrition, following a decade of negligible change in nutritional status. The programme set for itself a very specific target, then raised the target and was successful in achieving it. The Peru case study looks specifically at the coordinating mechanisms employed, the sustainability of the programme components, their geographic reach and means employed to rationalize budgeting and generate increased local participation.

The Brazil success story is quite different. In Brazil, nutrition was not, in fact, the focus but rather the beneficiary of a major policy shift within the government beginning in 1988, which focused on equity and reducing deprivation among the poor. As a result of this remarkable re-orientation and the so-called Zero Hunger campaign, there was not only a major reduction in poverty, but also a dramatic reduction in nutritional stunting – by more than 60 per cent in ten years in the poorest quintile.

The Bangladesh story is one of transition from an explicit community-based nutrition programme, which actively embodied a multisectoral component, to broader health sector programming in which nutrition has been mainstreamed, an effort actively promoted by several donor agencies, and with efforts being made to enlist the cooperation of other sectors. The paper seeks to understand both of these approaches, looking at the record of the former and examining the potential of the latter. The Bangladesh case study, utilizing an MDG-F project and building on the experience of Brazil and Peru, also examines the question of whether multisectoral interventions working in close proximity are capable of synergistic nutrition benefits.

BOX 1

Countries selected for multisectoral nutrition case studies

Three countries with active multisectoral nutrition experience for at least a decade were selected for detailed case studies. Each country also has hosted an MDG-F joint programme. These case studies offer experience and lessons that may be useful to countries initiating multisectoral nutrition pursuits.

Peru –

Government mobilized to address undernutrition via civil society advocacy, employing both supra-sectoral and line ministry coordination and utilizing both performance-based budgeting and results-based incentives.

Brazil –

Nutrition 'carried along' by the government's Zero Hunger strategy focused on poverty and inequity reduction, then addressed more explicitly with results-based incentives and with the organized convergence of key nutrition-related sectoral programmes in targeted vulnerable areas.

Bangladesh –

Community-based nutrition programmes with intersectoral components replaced by health sector-based mainstreaming with contending multisectoral coordination efforts based in the health and the food ministries; at the same time, some highly successful Brazil-style convergence efforts in vulnerable areas (including the MDG-F joint programme).



CHAPTER 2: CASE STUDY

PERU

Nutrition targets, budgeting and incentives,
supported by civil society advocacy



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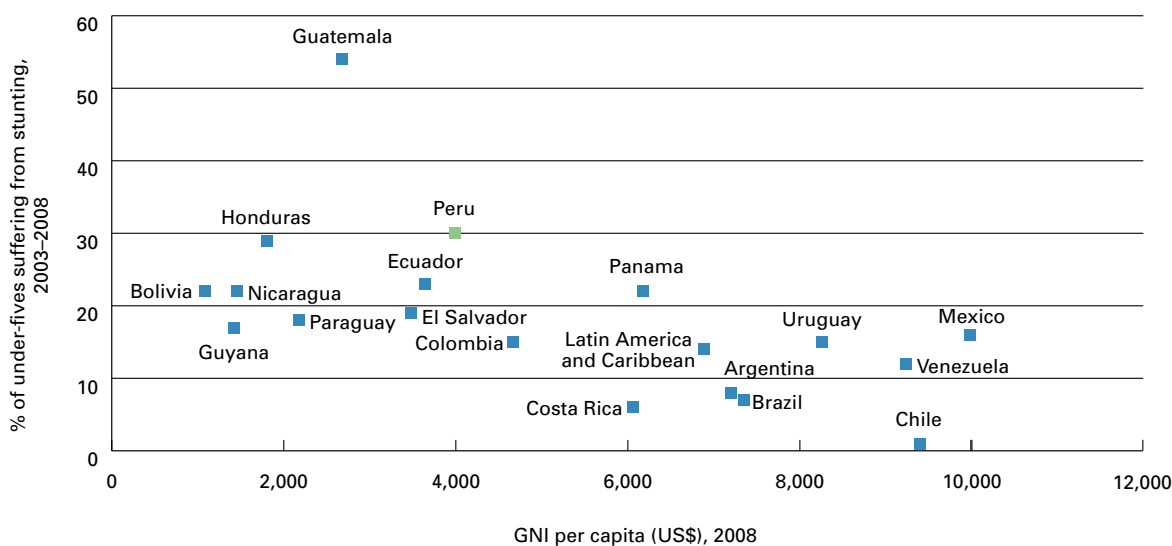
The engaging story of multisectoral nutrition in Peru has, to date, two episodes, relating the efforts of two national government administrations to address the problem of chronic malnutrition: the Garcia administration from 2006–2011 and the Humala administration, which came into power in 2011. The success of these efforts is marked by the support of a notable advocacy group, unusual cooperation among the development partners, a successful conditional cash transfer programme, budgeting based on results and encouragement for active local participation using results-based incentives.¹²

Episode 1: Recognition of the problem and the Garcia administration’s supra-sectoral approach

The findings of the DHS survey of 2004–2006 confirmed what many professionals suspected, namely, that the prevalence of stunting among children under age 5 had remained relatively static over the previous decade and, particularly surprising for a lower middle income country, was among the highest in the region – seven percentage points above the average for Latin America and the Caribbean (*Figure 3*).

This absence of improvement was particularly striking given (a) the rapid growth that had been taking place in the country – close to seven per cent annual increases in GDP between 2002 and 2007, the second highest rate of economic growth in the region (Tanaka and Vera Rojas, 2010)¹³ – and (b) the significant resources the government was injecting in potentially relevant programmes (an estimated US\$ 250 million per year directed to food and nutrition programmes in 2002). Most of that expenditure, however, was spent on untargeted feeding programmes and on programmes directed to children older than two years

FIGURE 3 Prevalence of stunting among children under age 5 in selected Latin American and Caribbean countries, by GNI per capita, 2003–2008



Source: Stunting rates: UNICEF Global Database; GNI data: World Bank World Development Indicators.

of age, beyond the window of opportunity of reducing chronic malnutrition.¹⁴

At the same time, effective small-scale interventions in the country convinced the nutrition community that adequate understanding and capacity existed in Peru to successfully address the problem nationally.

The issue galvanized the creation of a new advocacy group, the Child Malnutrition Initiative (CMI), made up of NGOs, other development agencies and civil society organizations. CMI took up the internationally unprecedented challenge of eliciting pledges from presidential candidates in the 2006 election that they would support a programme referred to as '5x5x5', the reduction of stunting by five percentage points in five years among children under five (*Box 2*).^{15,16}

With the new president, Alan Garcia, CMI found a willing and cooperative partner. In fact, within a

year, the president upped the five year target to a nine percentage point reduction. A new strategy, the National Nutrition Strategy for Poverty Reduction and Economic Opportunities, CRECER (in Spanish, 'to grow'), was developed with its own secretariat, CIAS.¹⁷ The CRECER strategy was placed not in a line ministry but directly under the Prime Minister's Office, officially under the Presidential Council of Ministers (PCM), a supra-sectoral positioning that multisectoral nutrition advocates had long been urging. Meanwhile, a new nutrition programme funding mechanism, the Joint or Strategic Nutrition Programme (in Spanish, PAN), was initiated as one of the first pilots undertaken by the Ministry of Economy and Finance, part of its new performance-based budgeting programme.

Performance-based budgeting represented a significant departure from the traditional programme budgeting which was based on anticipated

BOX 2 The Child Malnutrition Initiative (CMI)

Initiated by the National Director of CARE in Peru in 2006, CMI, with 14 founding agencies,¹⁸ plays a critical advocacy role in giving nutrition a central position in the government's anti-poverty strategy. CMI actively influences government policy, informally coordinates inputs of development partners and systematically reviews government progress in reducing malnutrition, disseminating their findings broadly.

Recognizing Peru's absence of progress in reducing chronic malnutrition in the decade preceding 2006, CMI launched an active campaign to procure the signatures of the ten presidential candidates in the 2006 election on a public commitment to '5x5x5' – reducing stunting by 5 percentage points in 5 years among children under age 5.

In the 2010–2011 presidential campaign, CMI once again was actively involved, this time adding anaemia reduction and child rights to the campaign. The 2010–2011 advocacy work also functioned at the regional level, seeking similar commitments on regional targets.

With encouragement from CMI, President Humala has elicited private sector – particularly mining company – contributions to poverty alleviation and nutrition activities and has publicized these investments. CMI has also helped to publicize the country's nutrition successes internationally and facilitated representation by Peru's First Lady on a senior governing body of the SUN initiative.

Importantly, however, CMI has been particularly conscientious in avoiding any activity that 'substitutes' for government action, insisting that sustainability requires government responsibility and follow through.

Being an organization of donors, CMI has served the additional function of facilitating coordination among them, both on geographic coverage and on assurance that the same nutrition advocacy and counselling messages are being disseminated.

The success of CMI has led to the creation of other such advocacy groups, including groups focused on maternal mortality and on anaemia.

programme inputs and specific activities planned. The new approach, in contrast, specified the results –outcomes and impacts the programme sought to achieve– and allocated the funds considered necessary to achieve these targets (Box 3). The performance-based budgeting programme has been receiving financial and technical support from the European Union and the World Bank.

The CRECER strategy was launched in 2007 as an inter-institutional coordination platform to promote the integration of nutrition initiatives. Its initial target population was one million children, with participation of both beneficiary families and sub-national governments. Supported by the political transition in the country and its new political mandate, the CRECER strategy departed sharply from earlier approaches to reducing undernutrition as it is now addressing not merely the symptoms of malnutrition, but also its key determinants (using the UNICEF conceptual

framework). It also departed from earlier strategies by stressing policy coordination and decentralization, increasing the responsibilities of regional and district/municipal governments. Perhaps most importantly, CRECER directed attention to the window of opportunity available in the first 1,000 days of life.¹⁹

Between 2007 and 2011, the Government of Peru doubled its resources devoted to the CRECER strategy, from US\$ 216 million to US\$ 495 million. The strategy also targeted the districts where problems of child and maternal malnutrition and poverty were most serious. Following on the Colombia example, each of the PAN-funded sectoral programmes was expected to operate substantial intervention programmes in these districts, achieving through this convergence direct as well as synergistic benefits. Of the 1,800 districts in Peru, CRECER began its initial phase with just over 200, expanding by 2011 to nearly half of the country's districts. The Ministry of

BOX 3 Performance-based budgeting

There is broad agreement in Peru that the inclusion of a nutrition programme (PAN) within the performance-based budgeting (PBB) initiative in 2008 is having an important positive effect on nutrition results. Actively supported by the World Bank, PBB utilizes budget programming to increase the efficiency and effectiveness of social programmes. The approach has had the effect of getting programme managers to make budget projections not for inputs or activities but rather for the outcomes and impacts (in Peru often referred to as 'products') the project seeks to accomplish. The result has increased operational efficiency, transparency and project effectiveness, and, in the process, improved coordination (recognizing the frequent necessity of multiple sectors to achieve particular targets). The process has also injected the Ministry of Economy and Finance actively into the planning and review processes, with a responsibility to monitor the utilization of budgetary expenditures.²⁰

While the PAN programme and its activities, along with programmes in maternal and neonatal health, child registration, primary education and rural infrastructure,

were the first to benefit from performance-based budgeting, other programmes were added soon thereafter, among them WASH-related projects.

The PAN programme, being among the first to utilize PBB, has received considerable scrutiny, utilizing Peruvian and international consultants and the review of over 1,000 papers, seeking to determine the components necessary in each phase of each project, the specific problems they address, the target population, the necessary duration, the necessary supervision and the content design.

Monitoring data are collected semi-annually while evaluations are done annually with findings incorporated into subsequent project operations at the national, regional and local levels. While focusing on national planning and budgeting, however, the PBB process has given less attention to implementation problems and capacity issues facing sub-national governments.



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Economy and Finance's performance-based budgeting programme provided additional financing to support the programme activities.

The primary elements embedded in the PAN programme targeting the CRECER areas were health-based interventions, constituting roughly 50 per cent of PAN expenditures.²¹ Approximately 30 per cent of the resources were going to Juntos, the conditional cash transfer programme. This programme was multi-sectoral by definition, given the 'co-responsibilities' imposed on its beneficiaries: utilization of health services and school attendance (*Box 4*). PAN also included activities relating to women and to food assistance, the latter terminated in 2011. And the broader CRECER strategy included programmes addressing maternal and neonatal health and rural sanitation. Total spending on nutrition under the PAN

BOX 4 The Juntos conditional cash transfer programme

Juntos was established in 2005, based on design work carried out with assistance of development partners. Following the CRECER mandate, the programme provides assistance to nearly half a million low income households in targeted districts of the country. Based in part on the successful conditional cash transfer programme in Mexico (Progres/Oportunidades), Juntos provides bimonthly cash transfers of approximately US\$ 77 to these households on the condition that pregnant women go for antenatal care check-ups, that recently delivered mothers and their infants go for post-natal check-ups, that the children are up to date on immunizations and that they attend school a predetermined percentage of school days.²²

While the Juntos transfers clearly increase demand for these services and the programme promotes demand for better quality services, Juntos also works in coordination with the Ministries of Health and Education to ensure adequate supply-side capacity and quality (well-functioning schools and health facilities) and therefore constitutes, by definition, a multisectoral intervention.

Juntos coordination is managed by multisectoral technical committees at the national and district levels. Such a programme is inherently conducive to multisectoral cooperation because each sector gains from the other's success. Health and educational systems, in turn, benefit from an effective Juntos programme that increases their numbers and accountability and, as a result, their effectiveness in making policy and fiscal demands on the government. Juntos benefits when school and health facilities function well, making its conditionality more attractive to families.²³

Juntos is presently carrying out two pilot projects to address newly prioritized needs. The Alternative Pilot Transfer Scheme is testing a scheme to incentivize co-responsibilities not for the household as a whole but rather for individual household members. These individual co-responsibilities include antenatal check-ups and institutional births. A second new pilot relates to educational attainment and is being carried out in the VRAEM region (Valley of the Apurimac, Ene and Mantaro rivers). Payments reward (a) completion of secondary school and (b) completion of the third grade of secondary school with a minimum acceptable score.

reached US\$ 665 million by 2010 (compared with US\$ 250 million in 2002).²⁴

The Garcia administration also encouraged regions, districts and municipalities to take on responsibility with explicit targets for nutrition –at this point without financial incentives–, but results were mixed. A few regions, including Ayacucho, were highly successful, reducing chronic malnutrition by six per cent and poverty by 15.6 per cent between 2005 and 2009.²⁵

The PAN programme and the CRECER strategy were successful in meeting the administration’s target of a nine point reduction in the prevalence of stunting in the country, with yet greater reductions in rural areas and with the greatest reductions in the CRECER-targeted districts, a highly impressive four percentage point reduction per year (*Table 1*).²⁶ The Ministry of Health, through the Integral Health Insurance programme (SIS), further increased government spending on nutrition through its funding of nutrition counselling and growth promotion programme.

Careful analysis of these reductions in stunting makes clear that economic growth per se has not been a central factor in this reduction – nor have greater fiscal transfers, mineral rents, urbanization or increased access to services. What is not clear from the analysis is whether these economic improvements –which between 2004 and 2011 reduced the prevalence of poverty in the country by 31 percentage points (World Bank, 2012)–,²⁷ although clearly insufficient in themselves to reduce stunting, may have facilitated the translation of nutrition interventions into reductions in stunting.

At the same time, however, regional disparities in stunting prevalence remained unusually large, ranging from a prevalence of 42.9 per cent in Huancavelica region to 2.1 per cent in Tacna region. Overall, the highland and the Amazonian regions were lagging far behind the coastal regions. While CRECER’s commitment to decentralization led to increased local level spending, problems of capacity and commitment –not unanticipated– were common.

Episode 2: The Humala government and MIDIS

The next elections in 2011 again found CMI generating pledges of commitment to nutrition from candidates of all political parties.²⁸ The winner this time was Ollanta Humala. Under the Humala government, the approach to the administration of nutrition and other social programmes changed. Seeking to put its own stamp on the nutrition initiative and place greater attention on the concept of social inclusion, the Humala administration eschewed the supra-sectoral approach and created a new Ministry of Development and Social Inclusion, MIDIS. The new government moved the CRECER strategy and its CIAS secretariat to the new ministry and invested that ministry with major responsibilities for social development and protection, inclusion, equality and nutrition. Five key social programmes were also moved under the responsibility of MIDIS.²⁹ Under the new government, nutrition would continue to have contributions from multiple sectors – but now with coordination of the appointed line ministry MIDIS. The new ministry, staffed with officials who had earlier held senior positions in the finance and health ministries, continues at this writing to be fully supported by the country’s political leadership.

TABLE 1 Reductions in prevalence of stunting in children 0–5 years, 2007–2008 and 2012

Percentage of under-fives suffering from stunting

	2007–2008	2012	Change (percentage point)
National	28.5	18.1	-10.4
Rural	45.7	31.9	-13.8
Urban	15.6	10.5	- 5.1
CRECER-targeted districts	54.7	33.3	- 21.4

Source: Demographic and Health Surveys, 2007–2008, 2012.

The following developments associated with MIDIS also offer hope that the rate of nutrition improvements in the country can continue:

- MIDIS has modified the CRECER strategy – now calling it *Incluir para CRECER* (Inclusion for Growth), restructuring the strategy to better harmonize the logic of government programmes using the life cycle approach. A yet more ambitious target has been set for reductions in stunting: a 13 percentage point reduction in five years which would bring stunting prevalence in the country down to ten per cent by 2016.
- MIDIS has been structured with two vice ministries, one of them responsible for targeting, coordination and evaluation, with one directorate focused on each of these responsibilities.³⁰ The coordination directorate has responsibility for coordination not only of programmes within MIDIS, but also related programmes in other ministries – an attempt to compensate for the absence of supra-sectoral coordination for nutrition.
- The planning and review functions earlier carried out at the supra-sectoral level under the President of the Council of Ministers have largely been relegated to the Ministry of Economy and Finance, which performs these functions through its oversight in performance-based budgeting in coordination with MIDIS.
- MIDIS has increased the number of targeted districts from 880 to 916 (out of a total of 1,800 districts), using as criteria not only the percentage of children stunted, but also the number.
- MIDIS is giving particular attention to WASH issues as key determinants of malnutrition and is contributing funds from its own budget for this purpose.
- MIDIS has introduced the important concept of psycho-social stimulation, combining it, where possible, with early childhood nutrition interventions to bring about a complementary positive effect on cognitive development, and has created the *Cuna Más* programme to carry this concept forward.³¹
- MIDIS has encouraged other cross-sectoral interaction, including, importantly, the introduction of health and nutrition into schools, with special attention to the nutrition transition problems of childhood overweight and obesity through a newly created school feeding programme (*Qali Warma*).

BOX 5 Results-based incentives

Recognizing the shortcomings in regional and district participation in nutrition planning and implementation, the new government, with financial assistance from the European Community and the World Bank, initiated a results-based incentive programme in the neediest six of the country's 24 regions. The programme allows a region to increase its budgetary allocation for nutrition by more than 50 per cent if successful in meeting a pre-determined set of region-specific targets.³²

Twenty-four of the 28 indicators used in the results-based incentive programme relate to project and financial management. The remaining four are programme-related indicators.³³ Indicators were selected relating to:

- immunization coverage;
- growth monitoring and promotion coverage;
- iron supplementation coverage for children (syrup or Sprinkles);
- iron/folate supplementation coverage for pregnant women.

Based on performance to date, the targeted regions have received just under 75 per cent of the maximum incentive they could have received if all targets had been achieved. Regional representatives are in full agreement that the incentive programme has increased the attention being given to nutrition in their areas.

Moreover, the government piloted the Municipal Incentives Plan (IP).³⁴ Launched in January 2010 as a conditional transfer programme to municipalities, the IP promotes alignment of local governments' goals with national goals and focuses on improving identity, health and nutrition results. In 2013, the IP's budget was US\$ 450 million (40 per cent higher than the previous year), representing nearly one-quarter of the total transfers made by the national government to local governments.

- The new government, anxious to increase private sector participation, has designed a certificate for companies investing in socially responsible enterprises, specifically investments in government-identified activities in targeted areas.³⁵
- The PAN programme and the Incluir para CRECER strategy continue to have the active advocacy support of the CMI, the support of the development partners, and the transparency assurance provided by a parastatal organization that places budgetary data, updated monthly, on a website.

Perhaps most critically, MIDIS, working closely with the Ministry of Economy and Finance and with the development partners, has reinvigorated nutrition action at the regional, district and municipal levels, assuring targets for key nutrition indicators in each region, and, very importantly, promoting the creative introduction of incentives for results. Utilizing this approach, the neediest regions can increase their allocations for PAN programming by over 50 per cent if they meet targets on key indicators (*Box 5*). This approach, also followed in Brazil, has the promise of becoming a primary feature of multisectoral programmes internationally.

Challenges ahead

The major questions that the Peruvian and international nutrition communities should watch in the years ahead are the following:

- Given its energy and the signs of hope listed above, will MIDIS –a line ministry, but a multi-sectoral one– be able to maintain the PAN and CRECER momentum and contribute to the sharp downward trend in chronic malnutrition?
- Will means be found to develop a creative interface between (a) PAN and Incluir para CRECER and (b) the new multisectoral food security initiative being currently established?
- As chronic malnutrition further decreases, will the priority given to it gradually dissipate? And if the trend in stunting reduction begins to flatten out, what limiting factors might, at that point, be responsible?
- How will the above issues be affected by rapid increases in rates of overweight and obesity in the country (*Box 6*)?

BOX 6 Smallholder agricultural production and the nutrition transition

There is compelling evidence that the absence of dietary diversity in young children can contribute to stunting and to the nutrition transition problems of child overweight and obesity. In Peru, while chronic malnutrition has been declining, the prevalence of child overweight and obesity –leading, in turn, to serious health consequences– has increased significantly (from 15 per cent among first grade students in 2004 to 25 per cent in the most recent survey).

At the same time, the premiums of the agricultural sector in Peru have consistently related to markets and exports.³⁶ As a result, instead of giving attention to home gardens generally managed by women, small producers are encouraged to sell their produce and purchase foods from the market with the proceeds. With poor consumer choices, the potential diversity that might have been possible through

home-produced foods instead becomes sugar and fat-rich processed foods with low nutrient density.

The problem is exacerbated in the highlands and the Amazonian regions, both areas with a high prevalence of stunting. In the highlands, potato and maize production and consumption predominate, in Amazonian areas cassava and bananas. In both areas there is enormous potential to diversify production and consumption with particular attention to vegetable and fruit varieties, beans and, in Amazonian areas, fish farming.³⁷

It is not unlikely that, in the absence of attention to these issues, Peru will see a flattening of the present sharp decline in stunting and continued rapid increases in child overweight and obesity.



CHAPTER 3: CASE STUDY

BRAZIL

Nutrition carried along by Zero Hunger, then supported by advocacy, incentives and convergence of multisectoral inputs in targeted areas



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The story of multisectoral nutrition in Brazil encompasses two governments, multiple government structures and a massive advocacy effort. It also presents a series of particular challenges relating to the country's indigenous population in the Amazonian regions –currently a government priority–, to the encroachments of agribusiness and to the sustainability of multisectoral planning and programming itself.

The Lula government and the assault on poverty and food insecurity

As in the case of Peru, civil society pressure preceded significant government action in Brazil. With the constitution of 1988 following Brazil's military government, public activism, linked with political parties, labour unions, an organization of bishops and some pressure from indigenous communities, focused on the pressing issue of hunger and poverty alleviation and reductions in inequality. The national campaign against hunger initiated by sociologist Herbert de Souza in 1993, and the book *The Geography of Hunger* by geographer Josué de Castro, introduced the multi-causal nature of the problem. And the development of a 'hunger map' (*mapa da fome*) created the basis for broad-based government action, well beyond the philanthropically-oriented feeding programmes existing in Brazil at the time.

The victory of the Brazilian Workers' Party in 2003 and the election of President Lula da Silva permitted the translation of these concepts into concrete action. The party platform promised *Fome Zero* (Zero Hunger) and reductions in poverty, inequality and food insecurity in the country. Lula, coming from a low income family in the northeast, came into office with passion and commitment:

"If, by the end of my term of office, every Brazilian has food to eat three times a day, I shall have fulfilled my mission in life" (BBC, 2003).

To address the problem, Lula's plan was two-fold: legislation that ensured food security for the entire population and multisectoral programmes focused on income redistribution, education, health and sanitation services.

He also helped to reactivate CONSEA, the National Council on Food and Nutrition Security, now responsible for overseeing the implementation of national food security agreements and promoting the consolidation of nutrition and food security strategies. Two thirds of CONSEA are made up of civil society representatives: small farmers, indigenous communities, consumer organizations and people with special needs; the remaining one third are government representatives.³⁸ Accordingly, unlike CMI in Peru, CONSEA serves as a forum for negotiation between civil society and government. Additionally, CONSEA has taken on responsibility for:

- formulating national policy on food and nutrition security;
- creating sub-national councils at the state level and sometimes the municipal level,³⁹ and facilitating financial contributions from local governments;
- analysing budgets relative to objectives; and
- monitoring actual programmes generating, in turn, useful suggestions for improvements.

The CONSEA secretariat was linked to the Office of the President, and Lula often attended CONSEA meetings.

The original hope of anti-hunger advocates⁴⁰ in the country was that the president would organize coordination of multisectoral programmes at a supra-sectoral level as had been the case in Peru under President Garcia.

Instead, like Peru's President Humala, Lula created a new ministry, the Ministry of Social Development and Fight Against Hunger (MDS), assigning that ministry overall responsibility for planning and implementing a programmatic response to poverty and hunger in the country, and reinforcing the concept that multisectoral nutrition need not necessarily be coordinated by a supra-sectoral body as long as the selected line ministry has the blessing of the political leader. President Lula also created an Inter-ministerial Commission on Food and Nutrition Security (CAISAN), physically located in the MDS with an accompanying mandate to generate participation at the state and municipal levels.

The Lula programmatic strategy involved the creation or expansion of major multisectoral programmes coordinated by the MDS and focused on targeted populations.⁴¹ Specific programme plans were often

formulated by CONSEA. Among the most important programmes are:

- *Bolsa Família* (Family Allowance Programme), a composite of 54 different initiatives, most built around a conditional cash transfer programme with the participation of 18 ministries and reaching roughly 35 per cent of the population. Conditionalities include antenatal check-ups, school attendance by children, immunization and growth monitoring. Municipal health, education and social assistance secretariats have primary responsibility for monitoring these programmes and recording compliance.
- The Food Acquisition Programme involving government food procurement from local farmers and provision to schools, day care centers and elderly programmes, but with a primary focus on the small farm families themselves and improvements in their food consumption. The programme, which avoids credit and banking systems, also assists producers by:
 - ▶ giving increased value to the agriculture-related work of women;



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- ▶ placing a high premium on diversified production and consumption by small producer families; and
- ▶ giving special attention to native fruits at risk of extinction.

The programme also creates national food stocks which can be released as necessary for purposes of food price stabilization.

- The *Programa Nacional de Alimentação Escolar* (National School Food Programme), administered by the Ministry of Education and reaching approximately 50 million students a day, was expanded with decentralized administration and with an increase in the budget per student.

While overall programme administration is lodged in the Ministry of Education, the Ministry for Social Development allocates funds through the Food Acquisition Programme (see above) for food purchases from local producers – with a requirement that 30 per cent of food used in the schools be locally produced; that the Ministry of Agricultural Development⁴² oversee the actual production of food; and that programme funds be transferred to municipal governments, unless local capacity is inadequate for this responsibility.

The Lula government also increased the minimum wage, increased food stocks and stabilized food prices.

Toward the end of his tenure, in 2010, President Lula convinced the legislature, without difficulty, to pass a special Food Security and Nutrition Law. The law made clear that access to food is a permanent human right (with actions not simply in response to emergencies), and *required the integration of food and nutrition policies away from sectoral silos and towards multisectoral cooperation.*

The net effect of these policies and actions was considerable. Between 1990 and 2008, the percentage of Brazilians who lived on less than US\$ 1.25 per day dropped from 25.6 per cent to only 4.8 per cent, surpassing the MDG target. During the same period,

rural poverty fell from 51 per cent to 12.5 per cent and urban poverty from 16 per cent to 3.4 per cent. Based on this success, President Lula was awarded the World Food Prize in 2011.

In the Brazil case, there is little question that these improvements were the result of policies and programmes, with minimal contribution from economic growth, which averaged only 2.5 per cent per year during this period (World Bank and IMF, 2010).

But what about nutrition?

While the word nutrition was commonly used during the Lula administration along with food security, there was little attention given to nutrition-specific interventions, those evidence-based interventions normally undertaken in the health sector (and interventions strongly endorsed by the 2008 Lancet Series on Maternal and Child Undernutrition).

Although Brazil had had a long history of nutrition-related activities under the Ministry of Health, President Lula, with his passionate commitment to social development, poverty reduction and food security, believed that the hunger problem in Brazil was not a health problem and that his new ministry was capable of doing all that was necessary. He had little interest in nutrition per se. In fact, the nutrition budget in the Ministry of Health was actually cut substantially in the early years of the Lula administration.

Despite this relative indifference to nutrition, malnutrition decreased significantly with the reductions in poverty, inequality and food insecurity. Both child underweight and child wasting were virtually eliminated in the country, and the prevalence of stunting fell from 13.5 per cent in 1996 to 7.1 per cent in 2006-2007, with a marked decline in the socioeconomic inequalities in stunting over this time period (Monteiro et al., 2010).

The Brazil experience through most of the Lula administration was a classic example of the paradigm of nutrition success without nutrition-specific



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action offered by MIT Professor John Field beginning in the 1970s. Field wrote that in some countries, notably China, with a commitment to reducing poverty, food insecurity and inequality and to improving education –indeed by effectively addressing some of the key determinants of malnutrition– problems of underweight, stunting and wasting could be significantly reduced without much talk at all about nutrition (and with a minimum of nutrition-specific activity). Field contrasted this paradigm with a second, where countries are less committed to addressing these determinants, speak a great deal about nutrition and accomplish less (Field, 1999).

Only toward the end of his administration did the Lula government become convinced by nutrition advocates

and development partners that some explicit attention to nutrition was necessary. It also was becoming clear to the government at this time that the country was facing a growing nutrition transition problem of rapidly increasing overweight and obesity.

The Dilma Government and *Brasil Sem Miséria*

The new administration of President Dilma Rouseff, elected in 2011, adopted a different slogan: “Brazil free of misery.” The government expressed a commitment to reach the heretofore ‘invisible’ with government programmes.

Brasil Sem Miséria marked a further refinement of the Lula Zero Hunger programme, focusing now particularly on the 800,000 families living in extreme poverty, their ‘invisibility’ the result of not being registered and, until now, not eligible for the *Bolsa Família* and other government assistance.

The Dilma government has sought to put this policy into practice through:

- Incentives to productive rural activities – eligible rural families with an extreme poverty profile (earning US\$ 35 or less per month) receive technical assistance, often from contracted NGOs, to prepare productive projects, e.g., chickens, gardens and handicrafts, which are then financed;
- An expansion of the scope of *Bolsa Família*;
- An expansion of the family food basket programme, which supports extremely poor rural families both through food purchases and food basket provision;⁴³
- In urban areas, a mapping of opportunities, training of individuals from extremely poor families consistent with these opportunities, and assistance with placement.

Meanwhile, the Dilma government has continued expansion of nutrition programmes supported toward the end of the Lula administration, including:

- An expansion of vitamin A and iron supplementation programmes;

- An extension of the School Food Programme to include preschools and kindergartens;
- A new Ministry of Health incentive programme for municipalities – extra funding transfers for nutrition activity are provided, and then continued if specified targets (relating to process, not outcomes) are met;
- A biofortification initiative, supported by HarvestPlus and AgroSalud, seeking to improve the micronutrient content of eight food staples: rice, maize, wheat, beans, cowpeas, cassava, pumpkin and sweet potatoes.

As in Peru, Brazil fully embraced the convergence approach, with MDS assuring that each of these national programmes be functioning in vulnerable geographic areas and targeted to those living in extreme poverty.

The government is also launching a new multi-sectoral programme seeking to address nutrition transition problems of overweight and obesity with involvement of the Ministries of Health and of Planning, of departments concerned with sports and cities and of CONSEA. The new programme will include efforts to eliminate food being sold privately on school premises, will work to reduce sugar consumption and bottle feeding and will seek to limit particular forms of food advertising.

As expected, underweight and stunting are substantially higher among children of families receiving *Bolsa Família* assistance compared with the national average. Somewhat surprisingly, the prevalence of overweight among these children is also higher:

- Underweight: nationally 1.6 per cent; in *Bolsa Família* families 4.6 per cent;
- Stunting: nationally 6.8 per cent; in *Bolsa Família* families 14.5 per cent;
- Overweight: nationally 7.4 per cent; in *Bolsa Família* families 16.4 per cent.⁴⁴

Challenges facing sustained multisectoral effectiveness in food security and nutrition efforts

Challenge 1: Reducing food insecurity and malnutrition among indigenous populations

Today the most serious problems of infant mortality and malnutrition are concentrated in the country's indigenous population in the Amazon region (*Table 2*).

The problem, however, is complex. Brazil's indigenous population totals 870,000, only 0.47 per cent of the country's population. But this population is host to 305 ethnicities and 274 different languages. With some indigenous areas rich in minerals, and large farmers encroaching on land in these areas (see *Challenge 2*, below), the task of meeting the health, nutrition and food security needs of this population –and protecting them– is an enormous undertaking requiring resources and innovation vastly disproportionate to the percentage of the population being addressed.

The main actors in this policy and programmatic drama are:

- SESAI, the Health Ministry's Secretariat of Indigenous Health, created in 2011 after two

TABLE 2 Infant mortality and stunting in Brazil, 2011

	Infant mortality rate	Stunting prevalence (per cent)
Indigenous populations	153	26
Brazil national average	14	7

Source: UNICEF Brazil, UNICEF 2013.⁴⁵

earlier Ministry of Health-created entities failed to deliver the needed services, and charged with coordinating social policies relating to the indigenous population; and

- The National Indian Foundation (FUNAI) – lodged in the Ministry of Justice and with representation from the indigenous populations themselves.

SESAI, seeking to administer according to the grouping of relatively homogenous and geographically proximate indigenous population groups, has developed 34 administrative units – 16 of them identified as high priority. These so-called DSEI units, however, cut across both states and municipalities, providing unique challenges to a health ministry that delivers services through state and municipal facilities and structures.⁴⁶ An effort is underway to reconcile these differences and the still separate data collection and monitoring systems. At present, all health service providers in these areas are external, except for indigenous health agents who collect information and monitor but are not permitted to provide services.

The challenge is in many ways a multisectoral one. The Ministry of Health calls monthly multisectoral meetings with representatives also of MDS, the Ministry of Defence, the Ministry of Mines

and Energy and FUNAI. Although the planned convergence approach is not yet fully functional, the multisectoral linkages in SESAI's strategy are considerable:

- SESAI works with the Ministry of Defence to get access to some of the remote Amazonian areas when the rivers dry up;
- The Ministry of Mines and Energy provides power for refrigeration of vaccines;
- MDS and FUNAI work together on the food basket programmes – both in supply and distribution, and in an effort to link food baskets and income generation through cooperatives;
- MDS takes the lead in food security activities, including grain distribution and incentives to producer cooperatives;
- Food, health and defence teams that used to visit villages separately now often go together.⁴⁷

Challenge 2: Resisting the encroachment of agribusiness

The highest agriculture premiums in Brazil are on monoculture (soy, sugar cane, corn), exports and markets. The agribusiness sector is powerful and has considerable support even within this



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progressive government because of its contribution to economic growth.

Some agribusiness practices in the country, however, are clearly at odds with the government's pro-health, pro-equity and anti-poverty platforms. The invasion of indigenous lands by large land interests have eliminated hunting opportunities and have sharply reduced the diversity of indigenous food production. The same is true in the case of other small producers, who presently produce 70 per cent of the food consumed in Brazil but occupy less than a quarter of the land. And genetically modified seed use and pesticide spraying have created additional problems that work against the interest of small farmers.

The government, despite its ambivalence on the subject, has made efforts to regulate the advertising of private food companies, but these efforts have been strenuously resisted by the industry. CONSEA continues to advocate strongly in this area, with efforts presently underway seeking to eliminate government subsidies for companies selling agro-toxic products.

Challenge 3: Sustaining multisectoral action

Long time World Bank analyst Harold Alderman, while clear about the enormous potential of multi-sectoral action in nutrition, was equally clear about its challenges, citing it as the most difficult aspect of nutrition strategic planning and programming to organize and sustain. Alderman's understanding is well exemplified in the Brazil model. Multisectoral cooperation is at the core of the country's highly effective *Bolsa Família* conditional cash transfer programme. It is vitally important in the Food

Acquisition Programme and in the School Food Programme, and in other food security and nutrition-related programmes addressing poor rural and urban families.

Government officials in Brazil do not speak with enthusiasm about their multisectoral work. Most project meetings and nearly all relating to implementation take place within single sectors. And yet, multisectoral meetings do take place regularly, and the Ministry of Social Development makes concerted efforts in both planning and review⁴⁸ of the country's food security and hunger alleviation programmes.

President Lula's Food Security and Nutrition Law of 2010 mandating intersectoral cooperation has now been internalized along with a broad recognition that sustaining Brazil's progress in meeting nutrition and food security needs requires:

- production of diverse food of high quality;
- consumption of adequate diverse food;
- access to quality health (at all stages of the life cycle) and education services;
- protection of indigenous populations, and the right to land.

By definition, therefore, the new law stipulates multi-sectoral programmes and convergence.

Brazil's nutrition and food security communities (which, over time, have become more unified in Brazil) have embraced this understanding and have made peace with the difficulties and inconveniences required. The system works, and the country's progress to date speaks for itself.



CHAPTER 4: CASE STUDY

BANGLADESH

A shift from community-based programmes to health sector-based mainstreaming and convergence programmes in vulnerable areas



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The Bangladesh case study explores two successive approaches to multisectoral nutrition: (1) community-based programmes with intersectoral components and (2) health sector-based mainstreaming and coordination of multisectoral activity. Potentially more important than either has been the country's experience with multisectoral nutrition convergence: delivery of key services from nutrition and food security-related sectors in the same targeted vulnerable areas, permitting synergistic benefits.

Multisectoral programming through the Bangladesh Integrated Nutrition Project, 1996–2003

The Bangladesh Integrated Nutrition Project (BINP), which operated between 1996 and 2003, covered roughly 16 per cent of rural Bangladesh. The primary focus of this project, carried out by the Ministry of Health with World Bank assistance, was the community-based nutrition component (CBNC), which actively utilized community nutrition promoters (CNPs) and NGOs to carry out regular growth monitoring, intensive nutrition counselling, micronutrient supplementation and on-site feeding for at-risk young children and pregnant women.⁴⁹

During the design of the project in 1994–1995, however, a decision was made to incorporate a component labelled 'intersectoral activities', accounting for about one tenth of the budget. The original purpose of this approach, which had been tried in earlier Bank-assisted projects,⁵⁰ was to establish an intersectoral fund within the Ministry of Health from which disbursements could be made to other ministries for the purpose of increasing the nutritional impact of activities in those sectors. According to the project design, funding allocation decisions would be made by a specially constituted intersectoral consultative committee based on submitted proposals.

Even prior to the initiation of BINP activities, it became clear that the BINP Project Management

Office, set up by the Ministry of Health on separate premises, and the principle stakeholders had their own ideas about those intersectoral activities in which they were most interested. Three such proposals were, accordingly, developed by project design personnel and approved by the advisory committee at the outset of the project. Two of these so called sub-projects, one for the establishment of 'nutrition gardens', a second entitled 'poultry for nutrition', were designed to boost household food security among low income households through the establishment of garden and poultry activities in every CBNC area. These projects were to be administered with BINP funds dispersed by the Ministry of Health to the Department of Agricultural Extension of the Ministry of Agriculture and the Department of Livestock Services of the Ministry of Fisheries and Livestock, respectively, with the assistance of NGOs.

A third initial intersectoral sub-project was entitled 'improving the consumption effects of agricultural policies and programmes'. This activity, a precursor of the Feed the Future initiative and today's major interest in agriculture-nutrition relationships, was administered through the Ministry of Agriculture and designed to increase the consciousness of consumption and, in turn, nutrition issues in agricultural project planning through a unit working in the Ministry's Agricultural Planning Wing. The unit would be responsible for preparing 'consumption impact statements' on proposed and existing agricultural policies and programmes.

There was, over the course of BINP, considerable variation in the effectiveness of these intersectoral sub-projects, with some useful lessons.

Garden and poultry sub-projects

The original purposes of these intersectoral household food security projects were to provide a means of increasing the real incomes of low income households in BINP areas, thereby increasing the capacity of these families to participate in CBNC activities; to increase the intake of vegetables, fruits and eggs by young children and reproductive age mothers in these households; and, more broadly, to create synergistic benefits with the nutrition services being provided in the same areas. The plan was to provide ten particularly poor, nutritionally vulnerable households in each community with home gardens for vegetable production, and ten more such households with resources for poultry production.⁵¹

An assessment carried out for BINP by the Dhaka University Institute of Nutrition and Food Science together with Tufts University came up with many important findings about both the implementation of these sub-projects and their impact (Karim et al., 2002).

Perhaps the most striking results of the study were (a) the small proportion of households originally targeted for participation in the garden and poultry activities that remained active; (b) the high proportion of households selected that did not in fact meet the project's eligibility requirements for such participation (64 per cent in the garden project, 56 per cent in the poultry project); and (c) the almost total absence of interaction between CBNC and food security activities (operated by different ministries and sometimes different NGOs), which tended to function as separate and distinct silos. Although this absence of interaction appeared on the surface to eliminate the possibility of synergism anticipated in project design, it is not at all clear that significant interaction was in fact necessary.⁵² Households with increased food access and higher incomes were likely more amenable to counselling messages and services provided by the project's community-based nutrition component. In fact, subsequent BINP project evaluation found that the most significant positive impacts took place at the

poorer end of the economic status spectrum (Karim et al., 2003).

Both these BINP sub-projects were based on impressive models, considerably more sophisticated than those implemented in earlier decades. In the garden sub-project, a system of state-of-the-art upazila (sub-district) and community level nurseries was envisioned, the former to provide high quality seeds and seedlings for garden project households and the latter privately operated community nurseries, to meet the expected demand of other households, which, seeing the new gardens, would seek to benefit themselves from such production increases. The poultry sub-project involved the provision of hybrid birds that were capable of high egg production but required special care. Households participating in this sub-project were required to coordinate the timely provision of quality inputs and services to rear the birds, and were assigned to one of eight cadres. While most households were responsible for raising chicks, others helped to ensure the provision of feed, vaccinations, adequate marketing and other related inputs and services.

The study found, however, that, by and large, the inputs and services required for the successful implementation of these sophisticated systems were rarely and inadequately provided. Although basic training was provided (to 94 per cent and 96 per cent of BINP garden and poultry participants, respectively, a majority of them women), follow-up services were inadequate (only 56 per cent and 53 per cent of BINP garden and poultry participants received any follow-up visits; only 29 per cent and 26 per cent of BINP garden and poultry participants received any refresher training).

In the case of BINP poultry activities, only two per cent of key rearers (the bulk of poultry participants responsible for poultry raising) reported receiving any support in the marketing of eggs, only ten per cent purchased (with their micro-credit funds or other funds) poultry feed from the project and only four per cent purchased vaccines from the project. In short, the much heralded eight cadre system failed to function.

The level of inputs provided in both the garden and poultry sub-projects were generally inadequate to ensure successful implementation. Most households were required to purchase additional inputs with their own funds in order to achieve even minimally acceptable production. In the garden project, in which no credit was provided, fully 57 per cent of BINP participants had to purchase some amount of additional seeds, 61 per cent had to purchase fencing, 78 per cent had to purchase chemical fertilizer, 18 per cent had to purchase cow dung, 26 per cent had to purchase chemical pesticides and 28 per cent had to purchase farm tools. Not surprisingly, the lower income BINP participants (those actually eligible for participation) performed less well in the project than the ineligible participants with higher incomes.

As a result of these shortfalls in inputs and services, both garden and poultry participants experienced considerable difficulty. Major problems in the garden project included plant disease (46 per cent of participating garden households), animal damage (38 per cent) and low production levels (49 per cent). Major problems in the poultry project were poultry disease (70 per cent), premature death of birds (50 per cent), non-availability of quality feed (22 per cent) and pest-animal damage (20 per cent).

As a result of these problems, dropout rates among participating households were high, particularly in the poultry sub-project. Nearly 60 per cent of original BINP key rearers, those actually raising the chicks, ceased poultry rearing activities in less than a year. In most of these cases, the difficulties involved in raising the hybrid birds without consistent inputs and services proved overwhelming. The special feed necessary was often not available, of poor quality or too expensive. The same was true of vaccines. As a result, egg production was often low and bird morbidity and death rates were high.

It should be noted, however, that even among dropouts, the project usually was not entirely without benefit. After one or two birds died, participating households frequently sold the rest, earning profits of at least Tk 300 (US\$ 7.50 at 2002 prices). This

profit was then often invested in field crops, local poultry (or ducks) or in small businesses which, in turn, usually yielded profit. The study estimates that, after interest and principle repayment, these households yielded a project profit of approximately Tk 250 (US\$ 6.25), roughly 60 per cent of which was likely utilized for family food consumption.

Among those who did not drop out, BINP garden participants produced a large variety of vegetables (an average of 50 in the summer season, 52 in the winter season). Gross earnings in BINP areas averaged Tk 2,400 (US\$ 60) and Tk 850 (US\$ 21.25) in the summer and winter seasons, compared to Tk 940 (US\$ 23.50) and Tk 600 (US\$ 15) respectively in non-BINP areas. These figures translated, however, into net earnings of only Tk 744 (US\$ 18.60) per year or 1.8 per cent of average annual income (the same as in non-BINP areas), hardly justifying, from the income perspective, the 11 hours of labour per week devoted to the garden.

Among poultry participant households that did not drop out, the average household collected an average of 685 eggs per year or an average of 49 eggs per bird (compared with 23 in non-BINP areas). Gross household earnings in BINP areas averaged Tk 1,820 (US\$ 45.50) per year, meaning net earnings far less than the Tk 500 per month originally envisaged by the project.

Consumption figures among households continuing with the project were more encouraging relative to non-BINP areas, and relative to consumption in comparable BINP households not participating in a food security sub-project, suggesting that the project design emphasis on consumption did have a positive effect. Among BINP garden families, 50 per cent of children consumed leafy vegetables three days or more per week, compared with 37 per cent in non-BINP areas, and compared with 18 per cent in non-participating BINP households. Comparable figures for non-leafy vegetables were 72 per cent and 49 per cent for BINP and non-BINP areas, respectively, and 64 per cent among BINP non-participants. Among BINP poultry rearing households, 29 per cent of children consumed eggs three

days or more per week, as opposed to 16 per cent of children in non-BINP poultry households and only nine per cent in non-participating BINP households. Consumption of eggs, vegetables and fruits by reproductive age women in BINP was also significantly higher than in non-BINP areas or among BINP non-participants.

As expected, however, these small increments in consumption were inadequate to translate into improved growth of children or reduced malnutrition among reproductive age women. Differences in anthropometry between young children or women in BINP garden or poultry participants and those from comparable BINP households not participating in one of these food security activities were not statistically significant.

In sum, it is clear that far more attention and support was provided to BINP's CBNC activities (implemented directly by the Ministry of Health) than to its garden and poultry sub-projects. It also is clear that the ministerial departments responsible for the garden and poultry activities were not sufficiently committed to the enterprise despite the availability of funds. Steps to correct these shortcomings were

identified and with higher level government support, the problems could surely have been resolved in short order. The absence of overt effectiveness, however, strengthened the hands of those in the Ministry of Health (and among key officials in partner organizations) who had been opposed to these inter-sectoral disbursements from the outset. Accordingly, as BINP transitioned into a National Nutrition Programme, the garden and poultry components were eliminated.⁵³

Consumption effects of agricultural programmes and policies sub-projects

Although this sub-project, like the nutrition garden sub-project discussed above, was initiated through the Ministry of Agriculture, its orientation was quite different. The 'consumption effects' sub-project sought to address a primary shortcoming of the country's food policy as it related to food deficit populations, namely, the narrowness of its attention to food consumption in its ongoing policy and programmatic decision making. Simply stated, the government's working policy with respect to food consumption, largely unchanged since the country's inception, was to achieve a target for national



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food grain availability arbitrarily set at one pound or 454 grams per person per day. Accordingly, the government, by and large, took the position vis-à-vis consumption that, as long as this national food grain availability target was met, as long as food prices remained reasonably stable and as long as transfer programmes existed to assist some proportion of the poor, agricultural and rural development planning and programme development could proceed without giving further consideration to their effects on food consumption (despite the frequently stated justification of reducing hunger and improving food security).

In retrospect, it has become clear that basing consumption policy on a food grain availability figure per se, regardless how well considered the figure, fundamentally fails to take into consideration the critical issue of household ability to purchase food. In the Bangladesh context at the time, one in which over half of the rural population was functionally landless and with a desperate shortage of rural employment, it proved erroneous to assume that adequate national food availability per se would address the wholly inadequate household food availability facing that half of the rural population living below the poverty line.

Accordingly, the BINP consumption effects sub-project was based on the premise that these development policies and programmes in rural areas must be successful not only in meeting production goals or in improving farmer incomes, but also in meeting these serious household food consumption and nutrition deficits.

The sub-project proposal noted that among the government's existing agricultural policies were many whose consumption effects were far from clear. These included not only those relating to agricultural diversification, but also policies relating to food imports and exports; commercial fisheries; embankments (which often boost rice production at the expense of small fish availability); self-sufficiency in milk, meat and egg production; private sector farms for the large scale export-oriented production of broiler meat, mutton, and poultry; and tobacco production



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(which might be displacing cereal production). While each of these policies might provide an important trigger for rapid rural growth, the sub-project proposal argued that they needed to be planned and implemented in ways that place a high premium on food diversity, provide assistance to production efforts undertaken by women and often relate directly to food consumption, and that are labour intensive to address Bangladesh's unique landlessness and job shortage dilemma. In sum, the proposal made the case for nutrition-sensitive agriculture.

Although the original sub-project design envisaged the establishment of a unit housed in the Ministry of Agriculture that would review all major policy and programme proposals from the perspective of likely consumption effects (i.e., from the nutrition-sensitive perspective) and would recommend means by which refinements might increase benefits (or reduce detrimental effects), the initiative was marginalized and peripheralized by the ministry itself. The consumption effects project was, in fact, housed in a nutrition institution rather than in the agricultural ministry and was never taken seriously by senior officials in the government. Despite high quality external assistance and the availability of state of the art techniques of carrying out such examinations, the ministry's unwillingness to locate the unit where it could actually

perform these functions finally made it clear to the Project Management Unit and the major stakeholders that this sub-project was not likely to accomplish its purposes. Once this conclusion was reached, funding was withdrawn.

Clearly apparent from the results of these intersectoral projects is that, while senior officials of the implementing ministries were delighted to receive the additional funding, responsibility for the intersectoral activities brought with it little sense of ownership or commitment to the larger purpose. Considering that these other ministries were only peripherally involved in the planning of these activities and not involved at all in broader BINP planning and strategy development, the results are not surprising. The garden and poultry sub-projects received only token support from ministry officials who saw little connection between these activities and what they regarded as their primary mandates. Not being accountable to any higher authority, and barely accountable beyond expenditure tallies to the health ministry, the Ministries of Agriculture and of Livestock and Fisheries simply went through the motions until the money was spent. In the case of

the consumption effects sub-project, they did not even get that far.

One indicator of the vitality of a project is the seriousness with which it is monitored. In contrast to the rigorous monitoring of the CBNC and the genuine culture of curiosity that evolved from the review of the monitoring data, monitoring of the intersectoral sub-projects was perfunctory at best, limited in the indicators utilized (despite provision of suggested indicators and monitoring forms by the BINP Project Management Unit and the BINP donor partners), and lacking the supervision which usually accompanied BINP CBNC monitoring (*Box 7*). Much of the data was taken directly from NGO reports and simply reproduced. NGOs themselves, not accountable for outputs or outcomes by the concerned ministries, devoted far less effort to their responsibilities in the intersectoral activities than in CBNC.⁵⁴ Because the BINP poultry sub-project was operated as a micro-credit project, the process of loan repayment often absorbed considerably more attention among service providers than the production/income generation/nutrition objectives of the project (Karim and Levinson, 2003).



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The BINP intersectoral approach –disbursements from a central ministry to others for specified activities– while well intentioned and surely more thoughtful than the narrow nutrition components of health programmes so common at the time, did not provide a viable model for multisectoral nutrition. If sectors outside of health are to be participants in viable sustainable nutrition-related programmes, there is no substitute for ownership, commitment and accountability (Hoey and Pelletier, 2011).

Efforts at multisectoral nutrition with nutrition mainstreaming

The country’s major community-based nutrition initiatives lasted in total 15 years. The BINP, which included the intersectoral component discussed above, was terminated in 2003 and its successor, the National Nutrition Programme (NNP) was discontinued in 2011. Nutrition was now to be fully incorporated –the term used was

BOX 7 Monitoring in nutrition programmes and after mainstreaming

In BINP and NNP, monitoring of nutrition services and their effects on nutritional status had been carried out routinely, primarily by CNPs, with data sent from community nutrition centers to the union, upazila and district levels before being aggregated and computerized at the national level by the Project Management Unit. The process established, and occasionally followed, was for a review of key indicators at each level and a ‘management by exception’ process through which committees at each level would identify sub-units that had not met pre-determined minimum acceptable levels for these indicators, and then take action to rectify these shortcomings.⁵⁵ Even in the absence of such sub-national review, there was systematic review undertaken regularly at the national level with district, upazila and union performance recorded and disseminated.

With the discontinuation of these programmes and the mainstreaming of nutrition into the health sector, nutrition monitoring once again became an issue to consider. The Ministry of Health and Family Planning in Bangladesh, like health ministries in many countries, has a Health Management Information System (HMIS) to record monitoring information taken mostly from government health facilities. HMIS systems, however, generally include relatively little nutrition information, certainly far less than had been recorded in BINP and NNP. Accordingly, in many countries, governments rely solely on periodic nutrition or DHS surveys, often five years apart, to determine changes

in anthropometry, micronutrient status, dietary diversity or nutrition-related caring practices.

Fortunately, in Bangladesh, efforts are now being initiated by HMIS staff and donor partners to establish a Nutrition Information System complementary to HMIS that will look at numerators and denominators on critical pre-determined indicators. This information will be collected through routine monitoring and surveillance site systems in addition to the utilization of survey data. Two challenges presently facing the Nutrition Information System are (a) the inherent bias in utilizing only facility-based data and (b) the shortage of indicators relating to pregnant mothers and other reproductive age women.

A second recently established information system is the Food Planning and Monitoring Unit (FPMU) established in the Ministry of Food and Disaster Management with support from FAO and seeking to establish a multisectoral database relating to food security and nutrition, with inputs from relevant ministries. There is also a plan to begin incorporating data from surveys undertaken by NGOs into this multisectoral database. As indicated, the FPMU is associated with a Food Security and Nutrition Information System, implemented by BRAC, HKI and other partners, that carries out quarterly food security assessments in key ecological zones in the country.

mainstreamed— into the gamut of health sector services, particularly at the facility level, with efforts made to make facilities increasingly accessible. Responsibility for incorporating nutrition into the broad array of government health and family planning services and carrying out the requisite training, coordination and advocacy functions was given to the new and well directed National Nutrition Service (NNS) working through the Directorate General of Health Services and the Directorate General of Family Planning. A decision was made to reduce the community level activity that had characterized BINP and NNP, but to have one community nutrition worker (CNW) responsible for working in the coverage area of each community clinic, meaning one CNW for every two or three villages once the planned increases in the number of community clinics have been implemented. CNW responsibilities will include screening for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM), enrolling these cases in community-based management of acute malnutrition (CMAM) and doing infant and young child feeding counselling.

Part of the appeal of nutrition mainstreaming to its advocates has been the opportunity to address each of the lifecycle stages –pregnancy, delivery, the post-natal and neonatal periods, infancy, early childhood and adolescence– by incorporating nutrition into the health sector departments with primary responsibility

for these periods. NNS five year targets set in 2011 include not only reductions in undernutrition and micronutrient deficiencies, but also improvements in birthweight, exclusive breastfeeding, complementary feeding and food intake during pregnancy.

The NNS also has responsibility for addressing and coordinating multisectoral nutrition through a steering committee with quarterly meetings of concerned ministry representatives chaired by the Health Secretary. To date these meetings have consisted of updates from sectoral representatives on activities that may have some bearing on nutrition. These have included school nutrition and health activities.⁵⁶

The government has officially placed responsibility for the coordination of multisectoral nutrition activities with this health ministry-based steering committee. So it is somewhat surprising to learn that the Food Division of the Ministry of Food and Disaster Management has another and arguably more active multisectoral body in operation.

Although the word nutrition is noticeably absent from its title, the Food Planning and Monitoring Unit (FPMU) of the Food Division publishes periodic monitoring reports covering not only public food management, market access, food security, safety net and emergency coverage, but also production and consumption diversification, dietary energy supply and chronic energy deficiency, overweight and obesity, and even anaemia prevalence, iodized salt coverage, complementary feeding and exclusive breastfeeding. The FPMU elicits inputs from 12 different ministries and tracks roughly 400 food-related projects in the country.^{57,58}

The FPMU also is associated with a Food Security and Nutrition Surveillance Project System implemented by BRAC, Helen Keller International (HKI) and other partners, which carries out quarterly food security assessments in key ecological zones in the country.

The existence of two government bodies facilitating nutrition-related activities should bode well for multi-sectoral nutrition in the country. It is not yet clear that this is the case. With relatively few sectoral



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interventions that are intentionally nutrition-sensitive, and in the absence of geographic convergence, such coordination may not achieve desired objectives.

Multisectoral nutrition and food security convergence in targeted areas

More promising to date have been multisectoral endeavours initiated by development partners and NGOs. The MDG-F programme in Bangladesh has elicited the efforts of UNICEF, FAO and WFP and their sectoral partners in the government in a multisectoral effort in vulnerable and low income coastal areas in the southern part of the country, designed to reduce undernutrition and household food insecurity. The combination of nutrition counselling, CMAM treatment for MAM and SAM cases, garden and small livestock assistance and school programmes (feeding, gardens and nutrition education) in the same areas has had the effect of virtually eliminating acute malnutrition from programme areas.

The SHOUHARDO programme, operated by CARE through local partner NGOs, a large scale multisectoral project that, like the MDG-F programme, is concentrated in the country's most vulnerable areas, has similarly adopted the convergence approach of concentrating and combining key resources –both nutrition-specific and nutrition-sensitive interventions– in the same geographic areas. In the SHOUHARDO programme, interventions include increased food access, improved health and hygiene, women's empowerment, local government mobilization and disaster preparedness.⁵⁹ The combined effect of these interventions has been a remarkable 4.5 percentage point reduction per year in stunting, nearly identical to that achieved in Peru's convergence districts (Smith et al., 2011).⁶⁰

These successful projects give additional credence to the decisions of the Peruvian and Brazilian governments to target the country's neediest districts and, in turn, require key sectors to provide inputs in these areas. The synergistic benefits of doing so appear to be significant and the approach preferable, in terms of timely malnutrition reduction,

to the universal coverage approach (e.g., Bangladesh National Nutrition Programme), which sought to cover the entire country.

Another important development in Bangladesh likely to be of great value in any major nutrition-related programmatic effort in the country is the emergence of two nutrition-related civil society organizations seeking to emulate the success of such efforts in Peru and Brazil. Encouraged by the UN REACH initiative, the Civil Society Alliance for Scaling Up Nutrition, Bangladesh, is aligned with the global SUN movement and is composed of representatives from civil society networks across the country, with BRAC serving as its secretariat. A new more recent network is the Bangladesh Civil Society Network for Promoting Nutrition, similarly committed to nutrition advocacy and made up of local non-profits and professional bodies. The NGO Eminence serves as its secretariat.

The Bangladesh government and its major development partners are beginning to look seriously at (a) this model of multisectoral convergence in targeted areas to reduce malnutrition and food insecurity and (b) the Peruvian/Brazilian model of target-related incentives to local areas. The SUN initiative in Bangladesh and the World Bank are also considering this model for future programming in the country. It is just possible that decisions made in these spheres will prove more important than the resolution of responsibility for multisectoral nutrition coordination.



CHAPTER 5:

CONCLUSIONS AND LESSONS LEARNED



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Detailed analysis of the three country experiences of Brazil, Peru and Bangladesh in multisectoral coordination leads to three key findings, each supported by experience in at least two of the three countries. The case studies, together with an historical look at multisectoral nutrition experiences, also provide a number of additional lessons learned to inform this new era of multisectoral nutrition programming.

Conclusions

The key findings of this paper are: (1) the value of the convergence approach – combined nutrition-specific and nutrition-sensitive interventions functioning together in targeted vulnerable areas; (2) the importance of nutrition-related results-based incentives to generate meaningful action at sub-national levels; and (3) the importance of sustained civil society advocacy at the policy level, serving to ensure political and administrative commitment to nutrition and food security, and, at the programmatic level, to ensure adequate budgeting, well-designed and implemented programmes and programme impact that addresses the needs of the population.

Convergence approach

The convergence approach, which has achieved impressive results in each of the case study countries, capitalizes on the synergy between combined nutrition-specific and nutrition-sensitive interventions working in selected geographical areas. Geographical targeting is critical to this model, as is the targeting of vulnerable low income populations within these areas to ensure equity focus. Utilized in Colombia in the 1970s and later in Peru and Brazil (and in the MDG-F joint programme [Box 8] and SHOUHARDO programme in Bangladesh), operationalizing this approach raises the question of whether convergence in the interest of nutrition requires explicit nutrition sensitivity or simply normal operations of each sector in the same targeted areas. Experience to date seems to suggest a combination.

- On one end of the spectrum, it appears that *WASH programmes* need not be particularly tailored to nutritional needs. Clearly necessary are clean tubewell water, sanitary latrines and hygiene counselling.⁶¹
- The most important benefit of *education programmes* for nutrition is clearly its effect in producing literate, better informed and empowered girls and women. At the same time, the inclusion of nutrition education in the curriculum, of school gardens and nutrient-rich school feeding and of life skills training and weekly iron supplements for adolescent girls (including those out of school) can enhance nutrition improvements in the long run.
- The provision of *health services* (with essential services at the community level in the absence of easily accessible facilities) that are nutrition-specific is clearly essential.
- The inclusion of *social protection* can produce yet greater nutrition and food security benefits if it is offered with counselling that facilitates the translation of that income supplement into improved nutrition and health status. Provision of food supplements (ideally fortified) also can help meet immediate nutritional needs. Vocational training/employment generation need only be sensitive to area-specific sustainable employment possibilities.
- *Agriculture* presents the most challenging issues in terms of sectoral inclusion in convergence

programmes. Some of the convergence programmes referred to above have simply included homestead garden programmes, recognizing that (a) larger proportions of garden production are used for home consumption and (b) garden production is disproportionately carried out by women. With adequate agricultural extension and counselling, women can increase both production and diversity and, in the process, often generate income for themselves, with concurrent increases in household decision making and more general empowerment.

But agriculture can also be included more broadly in convergence programmes if it is nutrition-sensitive, meaning most generally: (a) focused on production and consumption diversity; (b) focused, at least in part, on agricultural functions carried out by women in an effort to increase the efficiency of this work; (c) utilizing agricultural extension contact as a means also of disseminating key

consumption-related messages; and (d) labour-intensive and employment generating.⁶² Where these nutrition-sensitive agricultural activities are evaluated on their own, it is important that they be evaluated primarily on their effects in reducing household food insecurity (positioning these households for nutrition improvements through concurrent or subsequent nutrition-specific interventions) rather than nutritional status.⁶³ Of course, it may not be necessary to evaluate the effect of each sectoral input in convergence programmes whose primary anticipated effects are the result of the synergistic interface of these multisectoral activities.

Results-based incentives

From the case studies in Peru and Brazil, we see that approaches utilizing specific targets have been used with highly positive results to generate pro-active initiative at sub-national levels. Targets can include output indicators but should also include results/ impact indicators. Incentives seek not only to improve performance in multisectoral nutrition programming, but also encourage local ownership and accountability.

Sustained civil society advocacy

The case studies from Peru and Brazil have demonstrated the potential power of civil society to effect positive and instrumental change for nutrition. The advocacy strategies were not only focused on getting nutrition on the national policy agenda, but extended across the policy cycle to implementation of programmes. The historical overview also describes the evolution of advocacy strategies from empowering citizens, to strengthening civil society capacity for advocacy, to instrumental advocacy with the strategic influence of the policy reform process.

These case studies capture the importance of civil society advocacy to challenge those in power to address with seriousness the issues of food security and nutrition (and related concerns around poverty and inequities) and to prioritize and resolve challenges facing vulnerable groups (as in the Brazil case study, where civil society advocacy generated an increased

BOX 8 The MDG Achievement Fund's convergence approach

The establishment and organization of the MDG-F was, itself, a stimulus for the convergence approach, bringing together into single country programmes multiple UN agencies that rarely work on individual programmes together. In MDG-F joint programmes, including the Bangladesh programme described in this paper, UN bodies bring also to the table (and, more importantly, to the field) their government counterparts. In each case, specific coordination mechanisms were instituted to facilitate planning, implementation and monitoring and evaluation. Importantly, in several joint programmes, multiple sectors worked together in vulnerable geographic areas in convergent multisectoral efforts with nutrition and/ or food security-related objectives. Such efforts, focused on common objectives, appear to embody, more than any theoretical construct, multisectoral convergence.

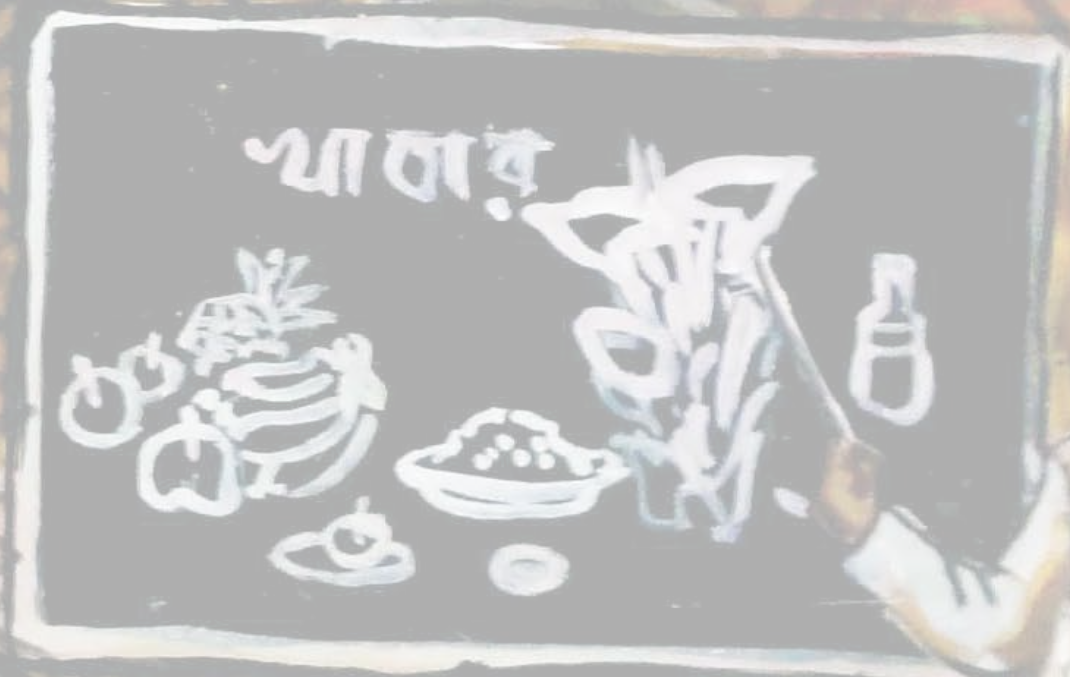
focus on indigenous populations). The challenge lies in insulating such effort from political transitions and ensuring sustainable strategies, with effective planning and implementation of such strategies.

Lessons learned in multisectoral coordination

Beyond the key findings presented above, additional lessons associated with multisectoral nutrition at both the policy and programmatic levels –and at national and sub-national levels– have been garnered from this overview and analysis of country experiences. They relate to (a) politics and institutions, (b) the supporting systems necessary to sustain programmes and (c) programme implementation. Many of the lessons, not unexpectedly, are closely interlinked. They include:

- *The importance of a sustained political mandate.* We have seen too many cases, most recently Bolivia, where a senior government official, perhaps with donor prodding, makes a statement endorsing a multisectoral nutrition initiative – only to lose interest as other issues become more pressing. Agenda-setting is a political process that can be influenced. Political strategies are needed to take advantage of opportunities to advance policy reform, and in turn promote politically feasible multisectoral coordination for nutrition.⁶⁴
- *The importance of institutional commitment within each of the concerned sectors.* The experience of the Bangladesh Integrated Nutrition Project –in which funds from the central health ministry-based project office were allocated to the Department of Agricultural Extension and the Department of Livestock and Fisheries, but without serious commitment from those sectors– makes clear that funding alone is inadequate for effective multisectoral nutrition.
 - ▶ One important means of generating that sectoral commitment is by making clear the ways in which improving nutrition also can improve the functioning of that sector. The education sector has already caught on, understanding that a student population that has been well nourished –particularly during ‘the 1,000 days’– will have higher active learning capacity and thus increase the returns on other investments in education (e.g., teacher training, materials development). Other sectors have been slower to catch on.
- *The importance of a coordination system strongly supported by high levels of government.* That coordination can take place at a supra-sectoral level, e.g., under the office of a president or prime minister as was the case in Peru under the previous government. It can also be carried out by a line ministry, but *only* if that line ministry is officially given that responsibility by high level government officials who continue to provide stewardship to this effort. We have seen this in Peru under the present Humala administration, which created a new Ministry of Development and Social Inclusion, MIDIS, and has provided continuing oversight to that ministry. In Brazil, former president Lula similarly created a new ministry, the Ministry of Social Development and Fight Against Hunger (MDS), assigning that ministry not only responsibility for nutrition, but, more generally, for the alleviation of poverty and hunger in the country.
- *The importance of thinking vertically as well as horizontally in multisectoral nutrition efforts.* President Lula also created an Inter-ministerial Commission on Food and Nutrition Security (CAISAN), physically located in the MDS with an accompanying mandate to generate participation at the state and municipal levels. Experience suggests that coordination structures need to be replicated at subnational levels to support coordination efforts and support the convergence approach.
- *The importance of linking nutrition with concerns for poverty and hunger alleviation, reduction of food insecurity and reduction of social inequities.* Countries that have done so, notably China and Brazil, can demonstrate more dramatic effects on nutritional levels, compared to countries that have not. Supporting nutrition-sensitive development through ongoing activities that have sustained political commitment may help bring about important wins for multisectoral work.

- *The principle of “Plan multisectorally, implement sectorally, review multisectorally”* has been borne out by this study. Individual government sectors –agriculture, food, health, education, women, water and sanitation and social protection– need to implement their own programmes. But joint or well coordinated planning, based on solid formative research, needs to take place to provide each sector with an understanding of optimal means by which sectoral programmes also can address and reduce malnutrition in the country – and means by which programmes from different sectors can be targeted to particular geographic areas to ensure complementarity. (The latter was done very effectively in Brazil.) Quantified objectives, capable of evaluation, need to be developed. Results need to be regularly reviewed by the coordination body and by other sectors to assess progress and to permit changes as necessary in programme design and implementation.
- *The importance of including elements in nutrition-sensitive projects that, based on available evidence, have the potential to positively affect nutrition/food security in a particular country or geographic area.* This may require some analytic effort (e.g., well evaluated pilot projects or studies) identifying those project components capable of producing such effects. (Such elements might include a concentration on agricultural diversity; agricultural extension provided directly to women; educational efforts targeting adolescent girls with life skills and providing them with weekly iron tablets; and the inclusion of nutrition messages in service provision.) This approach requires explicit nutrition/food security objectives in nutrition sensitive projects in agriculture, education, WASH and social protection. If a project has (in addition to what may be its primary goal) food security and/or nutrition objectives, it will have to address the objective explicitly in its design, and programme evaluation will have to address these objectives.
- *The importance of rigorous monitoring and evaluation of nutrition/food security effects of these projects along with primary project impacts.* This has been a particularly weak link in nutrition-sensitive projects. One useful tool used in Peru for such projects is performance-based budgeting. This tool to support multisectoral nutrition work appears transferable to other country settings.
- *The importance of monitoring also for any nutrition or food security harms resulting from the projects, and agreement with project management that these problems will be quickly addressed with mitigation plans utilized.* This is an issue particularly important in agriculture projects that are capital-intensive or export-oriented.
- *The importance of developing capacity in nutrition-sensitive interventions* utilizing, as necessary, technical assistance in such interventions. Fortunately, it does not take long for staff working, e.g., in education, social protection or agriculture and provided with adequate information to come up with creative ideas themselves on ways that nutrition can be improved through their activities.
- *The fact that multisectoral coordination cannot be a substitute for well-designed and, ideally, convergent programmatic action.* Convergence, as observed in the Peru, Brazil and Bangladesh examples, rarely required complex interaction among the actors. These case studies offer great lessons for how to simplify the challenges around working multisectorally by supporting programme convergence to focus on populations in targeted geographical areas.



NOTES

1. Present day nutrition specific interventions now generally also include therapeutic care for cases of severe acute malnutrition (SAM) and sometimes moderate acute malnutrition (MAM).
2. An important contribution to our understanding of nutrition-sensitive interventions is provided by Ruel and Alderman in the second *Lancet* Series on Maternal and Child Nutrition (Ruel and Alderman, 2013). That article examines specifically evidence on the effects of particular categories of nutrition-sensitive interventions on nutrition outcomes. This paper approaches the subject differently by considering the combined effects of nutrition-sensitive interventions, recognizing that, given malnutrition's multiple determinants, reducing malnutrition perhaps should not be the responsibility of any one sectoral intervention. Indeed, in the case of the convergence activities discussed in detail in this paper, nutritional status serves as an indicator of the cumulative effects of multiple policies and programme operations at work in a location. This paper also seeks to look beyond explicit nutrition outcome indicators for impact alone, particularly in the case of nutrition-sensitive agriculture.
3. IFPRI distinguishes among the terms:
 - Trans-sectoral – suggesting a merging of sectoral functions with a blurring of boundaries;
 - Intersectoral – suggesting two or more sectors sharing resources with strategic joint planning and/or action while maintaining responsibility for programmatic operations;
 - Multisectoral – similar to intersectoral, but with interactions generally unstructured or based on loose goal-oriented agreements;
 - Sectoral – sectors working individually with little communication on strategic planning (Harris and Drimie, 2012).

In reality, the terms multisectoral and intersectoral are used interchangeably by professionals and officials working in this area. The term cross-sectoral, indicating a partnership or alliance among organizations from two or more sectors, also is sometimes used. The term supra-sectoral normally relates to a coordination or oversight entity to which government ministries are accountable, e.g., the office of a president or prime minister, a finance ministry or a planning commission.
4. Personal communication with Clara Eugenia Lopez at the Bellagio Conference titled 'Nutrition and Government Policy in the Developing Nations', September 1975.
5. This was not for want of trying by concerned multisectoral advocates. In fact, a well-designed Food and Nutrition Plan was developed under the leadership of Secretary of Agriculture Arturo Tanco, and included food price subsidies and means of increasing edible oil consumption. The plan was actively encouraged and even placed as a prime agenda item for a World Bank Consultative Group meeting in the Philippines. Minister Tanco died prematurely, and the government chose not to accept the proposal.
6. Instead, local level interest centred on access to facilities: health centers and schools. One effort to generate local demand for nutrition in Latin America elicited the response, "But we're already eating maize and beans." When the nutrition advocate insisted there was more to nutrition, the response was, "Oh, does that mean we get to eat every day like it's a fiesta?" (Levinson, 1993) In its efforts in Peru to generate local demand for nutrition, the World Bank produced a video setting a standard for adequate child length at one year of age, and sending the message that "If your child has not met that standard, you are not receiving the services you deserve." <http://www.youtube.com/watch?v=mJieb2Xgt9U> (see note 16).
7. In the Indian Punjab, a four-fold increase in female literacy accompanied a reduction in young child underweight by two thirds between 1971 and 2001 (Levinson et al., 2004). Multiple regression analysis in Brazil found that just under 25 per cent of stunting reduction in the country between 1996 and 2007 were attributable to increased schooling of females – higher than any other single factor (Monteiro et al., 2009). Comparable analysis carried out internationally found that over half of reductions in underweight between 1970 and 1995 were the result of female education (Smith and Haddad, 2000).
8. The Cape Verde information was provided courtesy of Charlotte Dufour, FAO.
9. Brazil, as shall be seen, has innovated successfully in purchasing produce from small farmers receiving government assistance, and then using this produce in school meals.
10. Interviews carried out by the Hoey-Pelletier team with non-health sector officials indicated minimal awareness of the ZM initiative or their role in it (Hoey and Pelletier, 2011).
11. Field visits were conducted in February, March and May–June 2013, and interviews conducted with key stakeholders working in nutrition and food security at national and, in the case of Bangladesh, subnational levels. Potential participants were identified through key informants, primarily working with or affiliated with the MDG-F joint programme. Semi-structured interviews, guided by a prepared survey instrument, were carried out. Verbal consent was obtained at the time of interview. The findings of the case studies were shared with participants for verification of the findings.
12. The Peru experience presented in this case study fits well with the Kingdon streams model (see Teisman, 2000): in the problem stream, the credible indicators from the DHS highlighting the stunting problem (focusing event); in the policy stream, policy cohesion with the formation of the Child Malnutrition Initiative (CMI) led by a champion; in the politics stream, political transitions with national elections and consistently powerful policy advocates. Convergence of the streams is found with success in consensual agenda-setting.
13. Peru's rapid economic growth resulted in large part from sharp increases in the price of minerals exported by the country. Peru has also been exporting consumer goods including (ironically, in light of the agricultural discussion which follows) fruits and vegetables.
14. World Bank analysis found that in the year 2000, more than a quarter of districts with high stunting rates received no food and nutrition services at all, while nearly half of districts with low rates received them. Overall, only an estimated 28 per cent of the eligible children actually received assistance (World Bank, 2009). While these very visible feeding programmes provided political capital to the governments of those years, they neither encouraged multisectoral collaboration nor had any visible effects on chronic malnutrition (IDS, CARE, UKaid, 2011).
15. The World Bank country representative in Peru at the time, also highly committed to nutrition improvement, sought to develop a World Bank loan to facilitate the process, a loan that would be converted into a grant if the five point reduction was achieved. Although that specific plan failed to materialize, the Bank, along with the EEC and the Inter-American Development Bank, have found creative funding mechanisms to support the overall nutrition effort in the country, and to keep nutrition actively on the agenda of the Ministry of Economy and Finance.
16. With the support of the World Bank, a communicational video was developed with the objective of increasing the visibility of the country's chronic malnutrition problem ('My future in my first centimetres', available at <http://www.youtube.com/watch?v=mJieb2Xgt9U>). The video also showcased examples of successful nutrition interventions such as the UNICEF Buen Inicio model. The video became part of the communication package of the national nutrition strategy CRECER and was shown in thousands of health centers around the country.
17. Inter-ministerial Commission for Social Affairs.
18. Founding agencies were Action Against Hunger, ADRA Peru, CARE Peru, CARITAS Peru, UNICEF, UN Population Fund, Future Generations, Institute of Nutritional Research, Mesa de Concertación para la Lucha contra la Pobreza, FAO, PAHO, Plan International, PRISMA, WFP and USAID. The World Bank, simultaneously negotiating on nutrition with the Ministry of Economy and Finance, worked closely with CMI but made the tactical decision to refrain from membership (IDS, CARE, UKaid, 2011).
19. In November 2010, the Government of Peru became an official participant in the international 1,000 Days Initiative, considering the initiative well aligned with the country's strategy and ongoing programmes.
20. The process, however, clearly requires greater efforts on the part of project managers. One described the process as 'exhausting'.
21. The primary health interventions were immunizations, growth monitoring and promotion, behavioural change communications at family and community level, activities addressing acute respiratory infections and diarrhoeal infection, micronutrient supplementation (iron, vitamin A and Sprinkles) and salt iodization.

22. An additional conditionality is that every person in the family have civic identification or registration, necessary for the receipt of particular services. In some districts of Peru, as few as 15 per cent of children are registered.
23. The World Bank is supporting the government's efforts through a new project, Juntos Results for Nutrition, a US\$ 25 million loan that will support the demand, supply and governance of nutrition services, organized under the PAN. The project targets three of the 14 poorest regions of the country, where the Juntos conditional cash transfer programme is operating: Amazonas, Cajamarca and Huánuco. The objectives of the operation are (a) to increase demand for nutrition services by strengthening the operational effectiveness of the Juntos conditional cash transfer programme and (b) to improve coverage and quality of the supply of basic preventive health and nutrition services in the communities covered under the PAN. Activities to support both objectives include a strong emphasis on promoting good governance and on monitoring the impact of government programmes on nutritional outcomes.
24. The CRECER strategy was genuinely multisectoral. CIAS, the CRECER technical secretariat, included representatives from Ministries of Health, Education, Agriculture, Women and Development, Work and Job Creation, Transport and Communications, and Finance and Economy. By contrast, the funded PAN programme was only partly multisectoral, initially including nutrition-specific interventions, sanitation and Juntos but excluding the agricultural and educational sectors. The situation was further complicated when the Ministry of Economy and Finance, seeking consistency and integrity across sectors, moved sanitation and Juntos out of the PAN funding orbit. These issues now appear to be resolved under the Ministry of Development and Social Inclusion, MIDIS.
25. The regional government of Ayacucho actually developed its own version of CRECER, naming the strategy CRECER-Wari.
26. It has been argued that SIS, the national health insurance programme introduced in 2005, may also have contributed to these reductions (IDS, CARE, UKaid, 2011).
27. The prevalence of poverty during this period fell from 58.8 per cent to 27.8 per cent, and the prevalence of extreme poverty fell from 16.7 per cent to 6.3 per cent. The expenditure-based Gini coefficient, a measure of equality in expenditures (where 0=perfect equality and 1 = maximum inequality), fell from 0.44 to 0.38, while the income-based Gini coefficient fell from 0.51 to 0.46 (World Bank, 2012).
28. As indicated in Box 2, CMI's approach in the 2010 election broadened to include regional elections and now, in addition to undernutrition, focuses on anaemia and child rights.
29. Including the conditional cash transfer programme Juntos; the social pension, Pension 65; the social fund FONCODES; the school feeding programme Qali Warma; and the early childhood development programme Cuna Más.
30. The other vice ministry is tasked with administration of the five social programmes transferred to MIDIS.
31. It has been suggested that the government's longstanding commitment to female literacy, the MIDIS commitment to early childhood psychosocial stimulation and the recent involvement of the Ministry of Health in schools could elicit a broader involvement of the education sector in nutrition – e.g., an increased commitment to education for women, the utilization of school children as change agents and special attention to adolescent girls (including those no longer in school). Peruvian surveys have found stunting prevalence in households with no maternal education to be more than double that of households where mothers have had primary education. With respect to women's issues, the government is taking steps to address critical problems of teen pregnancy and violence against women in rural areas (Valente, 2010).
32. The incentives are part of the Result-based Agreements between the Ministry of Economy and Finance and the regions, and are supported by the European project of the European Community and the sector-wide Juntos Results for Nutrition project of the World Bank.
33. It has been suggested that consideration be given to inclusion, perhaps in a pilot study, of an impact indicator, in this case, stunting prevalence. The inclusion of this indicator would place the responsibility on the regional team to consider carefully, and then identify and address, the most likely limiting factors in that region (or in districts within it) constraining reductions in stunting.
34. Between 2011 and 2012, the World Bank conducted an assessment of the Municipal Incentives Plan, examining the effectiveness of its design. While the overall thrust of the report was highly positive, the report also noted that (a) the monetary incentive alone does not account for the more active role of sub-national governments (one other important explanation is a desire to maintain good relations with the Ministry of Economy and Finance); (b) delays in transfers following evaluations were problematic; (c) the size of the incentive (as little as six per cent of local budgets) was sometimes inadequate to generate the desired action; (d) counter-intuitively, poorer local areas did less well than more affluent ones; and (e) less densely populated areas, and those with higher tax revenues, and local governments considered to have less capacity also did less well.
35. This certificate programme has been developed in consultation with the Kennedy School of Government at Harvard University.
36. As indicated, Peru's exports include vegetables and fruit. The country imports corn and soy from the United States as animal feed.
37. World Bank project analysis in Peru found that foods appropriate for production and consumption in highland areas include green leafy vegetables, mustard leaves, lima beans and carrots. In Amazonian regions, appropriate foods include peanuts, eggs, beans, squash, green leafy vegetables and a wide variety of fruits plus guinea pigs.
38. The makeup of CONSEA ensured that primary attention would be given to addressing the underlying determinants of malnutrition, i.e., nutrition-sensitive interventions, rather than simply to its manifestations.
39. The word municipal, which connotes an urban entity in many countries, means in Brazil local level governance.
40. Although, as indicated below, the term nutrition was often used in government documents, the primary intent of these advocates and of the Lula government as a whole was to reduce poverty and hunger.
41. Multisectoral nutrition pursuits in Brazil had been initiated as early as the 1970s. A World Bank-assisted project included multiple nutrition-sensitive interventions relating to agricultural extension, consumer food subsidies, preschool psycho-social stimulation, plus health sector-based activities and a processed children's food. With the exception of agricultural extension activities, most of these were short-lived (Berg, 1989).
42. Not to be confused with the Ministry of Agriculture, which is responsible for larger monoculture production, livestock and exports.
43. The programme has been controversial among some indigenous populations who find the food provided inappropriate for their cultures.
44. This high prevalence of overweight in a low income population group, common in industrialized countries, may, in part, be explained by the Barker hypothesis (biologic dysfunction, including an inability to properly oxidize fats, resulting from foetal or young child malnutrition). Other factors likely include limited access to information on the value of dietary diversity (and, in some cases, to food diversity itself).
45. The infant mortality rate figure for indigenous populations is represented by Yanomami municipality. The estimate of stunting prevalence among indigenous children under 5 years of age has been provided by UNICEF Brazil. The national data is taken from UNICEF's *The State of the World's Children 2013* report, with the infant mortality rate pertaining to 2011, and stunting prevalence pertaining to 2006.

46. Some groups in the country favour the abandonment of the separate DSEI system. By contrast, some in the indigenous movement would like to see these DSEIs become semi-independent, receiving resources but managing their own systems.
47. Although services in indigenous areas are still often regarded locally as paternalistic, many efforts have been made to organize service delivery in ways that are consistent with local practices, including cooperation with *pajes*, the local spiritual healers.
48. Although not with the rigour exercised by the Ministry of Development and Social Inclusion (MIDIS) in Peru or by that country's Ministry of Economy and Finance in its performance-based budgeting.
49. While the CNP designation suggested an exclusive nutrition focus, the reality was quite different, with CNP responsibilities comparable to the work carried out by community health workers in other countries.
50. The World Bank, during the 1990s, had begun experimenting with this concept in some of its health ministry-based projects.
51. Eligibility required that the household own less than 50 decimals (half an acre) of land, sell at least 100 days of informal (most agricultural) labour during the year and have a young child or reproductive age woman in the household.
52. Once this was recognized, NGO assignments were shifted so that the same NGO would have responsibility in an upazila (sub-district) for CBNC and food security activities. Since distinct sets of subject matter specialists within the NGO had responsibility for the two sets of activities, however, this change had a negligible effect on the silo problem.
53. Ironically, BINP had been the object of serious criticism by Save the Children (UK) and others arguing that the project, rather than addressing low-end poverty or basic health needs, was devoting its resources primarily to behavioural change (see, e.g., Hossain et al., 2005). Abandonment of the intersectoral garden and poultry projects, both designed to reduce household food insecurity, gave credence to the criticism.
54. The evaluation team responsible for assessing the poultry activities found that project staff, learning of the imminent evaluation, began desperately distributing chicks to unsuspecting families.
55. As an example, if BINP set the minimal acceptable level for the percentage of community children attending monthly growth monitoring at 75 per cent, an upazila reviewing records from the unions within that upazila would identify any union which had not achieved 75 per cent coverage during the previous month and would take action to rectify the problem in that union. Districts would do the same for upazilas. Unions would do the same for CNPs.
56. At this early stage of the NNS, it would be premature to hazard guesses as to its potential effectiveness. What is clear, however, is that the mainstreaming that it embodies consists primarily of health sector-based nutrition-specific action carried out at the facility level. To date, its multisectoral thrust appears pro-forma and relatively minimal – as might be expected based on international experience, with a line ministry devoid of high level backing responsible for coordination. Sectoral programmes being coordinated are on the whole neither convergent nor particularly nutrition-sensitive. Once the NNS is fully operational, it might be valuable for the international nutrition community as a whole to carry out a comparison of the community-based programme approach represented, however inadequately, by BINP and NNP, with the facility-based mainstreaming approach, and using nutrition effectiveness indicators, coverage information, distributional effects (on, e.g., the poorest wealth quintile) and, pertinent to this paper, actual multisectoral action.
57. While uncertainties relating to nutrition strategy and direction exist in Bangladesh, the government has been particularly diligent in pursuing its National Food Policy (2006) and Plan of Action (2008–2015) with a particularly well financed Country Investment Plan.
58. The food sector also boasts at least one excellent example of a nutrition-sensitive project. The FAO-assisted Integrated Horticulture and Nutrition Development Project implemented by the Department of Agricultural Extension, Ministry of Agriculture, includes regular meetings of farmers' groups and the type of required savings deposits normally associated with micro-credit programmes. The project, reaching 23,000 farmers in 15 districts, and combining diversified production with consumption counselling, has been successful not only in increasing production, but also significantly increasing consumption of leafy, yellow and orange vegetables and vitamin C-rich fruit. Introduction of complementary food at 5–7 months in project households was found to be roughly double that found in control households. Holding farm size constant, nutrient intake in project houses –including among adolescent girls– was substantially higher in project households (Department of Agricultural Extension/FAO, 2007); (Tontisirin and Bhattacharjee, 2008).
59. The project utilized what it referred to as the 'rights-based livelihoods approach' in addressing malnutrition.
60. Evaluation in this case utilized a mixed methods approach, using multiple data sources –both non-experimental and quasi-experimental– with triangulation.
61. There can be little question of the importance of WASH in reducing malnutrition, particularly in densely populated areas. Analysis by Dean Spears of 140 DHS surveys in India has found that the height of Indian children is highly associated with their and their neighbours' access to toilets and that open defecation accounts for much of the excess stunting in India (Spears, 2012).
62. This last point, relevant particularly to South Asian conditions of landlessness and high rural unemployment, is not without controversy. Some commentators worry that labour intensive employment will inevitably result in women doing more arduous labour rather than less. Others argue that increased urbanization, despite the obvious problems associated with it, would be preferable to low paying physically demanding labour –work better done by machines– on larger farms.
63. Agricultural interventions, realistically, can rarely be expected to address more than the underlying food insecurity determinant of malnutrition.
64. A review of political economy analysis for food and nutrition security and a method for conducting a political economy analysis are presented by Reich and Balarajan, 2012.

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APPENDIX

Examples of nutrition-sensitive agricultural and social protection interventions

Nutrition-sensitive agriculture

- Promotion of technologies that improve productivity and time savings for productive and domestic tasks performed by women.
- Support to increase productivity of small-scale nutritious food production (e.g. fruits and vegetables, legumes, fish, small livestock and dairy).
- Enhancing capacity of national agricultural research institutions to promote the breeding for and dissemination of developed biofortified varieties.
- Marketing projects to support smallholders' participation in the value chain of nutritious foods (e.g. fruits and vegetables, legumes, fish, livestock, dairy).
- Promotion of industrial food fortification (flour, vegetable oils etc.), which may include institutional reform to strengthen food safety standards, legislation and enforcement).
- Promotion of nutritional homestead garden plots.

Nutrition-sensitive social protection

- Sharpen targeting to the most nutritionally vulnerable populations.
- Include education/counselling activities with social protection interventions to increase household awareness of care giving and health seeking behaviours.
- Integrate nutrition services into social protection interventions, e.g., growth monitoring and promotion and/or activities for improved growth and diet quality.
- Reduce the acute and long-term negative impacts of external shocks by scaling up programmes in times of crisis.
- Include in social protection programmes the distribution of some combination of the following:
 - ▶ micronutrient powders;
 - ▶ iron folate supplements (daily) for pregnant women and (weekly) for adolescent girls;
 - ▶ therapeutic foods for acutely malnourished young children;
 - ▶ sustainable locally produced food supplements for growth faltering young children and low BMI pregnant women.

(Taken from World Bank, 2013.)

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