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UNDERNUTRITION: WHAT WORKS?
A review of policy and practice

Manuel Sanchez-Montero
Núria Salse Ubach
Morwenna Sullivan
ACF International Network

Action Against Hunger | ACF International is an international humanitarian organisation committed to ending child hunger. Recognized as a leader in the fight against malnutrition, ACF works to save the lives of malnourished children while providing communities with sustainable access to safe water and long-term solutions to hunger. With 30 years of expertise in emergency situations of conflict, natural disaster and chronic food insecurity, ACF runs life-saving programmes in some 40 countries, benefiting nearly 5 million people each year.

Tripode Proyectos

Tripode Proyectos is a non-profit organisation coordinated from Madrid, integrating a network of experienced professionals in Development Cooperation and Humanitarian Action based in different countries of Europe, Africa, Asia and Latin America. Our goal is to help in improving the quality and impact of aid through three main pathways: research, technical assistance and evaluation plus knowledge management (training and dissemination).

Our clients range from donor and partner governmental bodies, implementing agencies, think tanks, training institutions and community-based organisations.
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<tbody>
<tr>
<td>ACFIN</td>
<td>Action Contre la Faim International Network</td>
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<td>ART</td>
<td>antiretroviral therapy</td>
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<td>ARV</td>
<td>antiretroviral</td>
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<td>CAADP</td>
<td>Comprehensive Africa Agriculture Development Plan</td>
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<td>CCT</td>
<td>conditional cash transfer</td>
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<td>CIAS</td>
<td>Comisión Interministerial de Asuntos Sociales (Inter-Ministerial Social Affairs Commission)</td>
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<tr>
<td>CMAM</td>
<td>community-based management of acute malnutrition</td>
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<td>CONSEA</td>
<td>Food and Nutrition Security Council</td>
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<td>CPRS</td>
<td>country’s poverty reduction strategies</td>
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<td>DFID</td>
<td>Department for International Development</td>
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<td>DHS</td>
<td>demographic health surveys</td>
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<td>EHP</td>
<td>Essential Health Package</td>
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<tr>
<td>ENDES</td>
<td>Encuesta Familiar Demográfica y de Salud (Health Family and Demographic Survey)</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<td>FDI</td>
<td>foreign direct investment</td>
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<td>FFE</td>
<td>Food for Education Programme</td>
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<td>FFW</td>
<td>food for work</td>
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<td>GDP</td>
<td>gross domestic product</td>
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<td>GNI</td>
<td>gross national income</td>
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<td>GMP</td>
<td>growth monitoring and promotion</td>
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<tr>
<td>HIV/Aids</td>
<td>human immunodeficiency virus / acquired immune deficiency syndrome</td>
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<td>HFSNA</td>
<td>household food security nutrition assessment</td>
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<tr>
<td>HNPSH</td>
<td>health, nutrition and population sector programme</td>
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<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<tr>
<td>IPHN</td>
<td>Institute of Public Health Nutrition</td>
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<td>IUCN</td>
<td>Institute for Sustainable Development</td>
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<tr>
<td>MOH</td>
<td>Ministry of Health</td>
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<tr>
<td>MMR</td>
<td>maternal mortality ratio</td>
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<td>MDG</td>
<td>Millennium Development Goal</td>
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<td>NAPA</td>
<td>National Adaptation Programme of Action</td>
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<tr>
<td>NGO</td>
<td>non-governmental organisation</td>
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<tr>
<td>NNCC</td>
<td>National Nutrition Coordination Council</td>
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<td>NNP</td>
<td>National Nutrition Programme</td>
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<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
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<tr>
<td>ODI</td>
<td>Overseas Development Institute</td>
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<tr>
<td>OPS</td>
<td>Organización Panamericana de la Salud (Pan-American Health Organisation)</td>
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<tr>
<td>PEN</td>
<td>National Plan for the Fight Against HIV</td>
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<td>PNAISM</td>
<td>National Policy of Integral Health and Women Care</td>
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<td>PNI</td>
<td>Programa Nacional de Immunizacoes</td>
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<td>PRSP</td>
<td>poverty reduction strategy paper</td>
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<td>PFDS</td>
<td>public food distribution system</td>
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<td>PLHIV</td>
<td>people living with HIV</td>
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<td>RUTF</td>
<td>ready-to-use therapeutic food</td>
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<td>SAM</td>
<td>severe acute malnutrition</td>
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<tr>
<td>SDC</td>
<td>Swiss Agency for Development and Cooperation</td>
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<tr>
<td>SME</td>
<td>small and medium enterprises</td>
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<tr>
<td>SOWC</td>
<td>State of the World’s Children</td>
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<tr>
<td>UNDAF</td>
<td>United Nations Development Assistance Framework</td>
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<td>UNGASS</td>
<td>United Nations General Assembly Special Session</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children Education Fund</td>
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<tr>
<td>VAC</td>
<td>Malawi Vulnerability Assessment Committee</td>
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<tr>
<td>VGD</td>
<td>vulnerable group development</td>
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<tr>
<td>WASH</td>
<td>water, sanitation and hygiene</td>
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<tr>
<td>WB</td>
<td>World Bank</td>
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<tr>
<td>WHO</td>
<td>World Health Organisation</td>
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<td>WFP</td>
<td>World Food Programme</td>
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Executive summary

Although worldwide progress in reducing undernutrition rates has been relatively slow and variable, there are some individual success stories that buck the global trend. This review argues that, by studying these successes, we can aim to derive lessons and examples of good practice that can be implemented across other countries. This Phase 1 paper, framed under the ongoing Zero Hunger ACFIN strategy, aims to address the reasons for these successes by drawing on evidence from five countries with good practices in the prevention and treatment, and consequent reduction of undernutrition (including stunting, underweight and wasting) rates over the past 15 years.

Brazil, Peru, Malawi, Mozambique and Bangladesh all represent success stories in the reduction of undernutrition rates for the period 1995–2010. The study of these countries’ policies concerning the planning, management and implementation of approaches to hunger and undernutrition has helped us to identify significant lessons learned and best practices.

- **Brazil**’s outstanding reduction in child undernutrition is related to the increased coverage of essential public services (elementary education, primary healthcare and sanitation), improved family incomes1 and family-based agriculture support. Among the key best practices contributing to the improvement of child nutrition rates, it is worth highlighting the intensive involvement of Brazil’s civil society from the problem analysis stage right through to implementation, as well as the political will of the Brazilian government and its adherence to the Right to Food approach. Especially remarkable is the adoption of a multi-sector approach at public policy level — within the framework of the Fome Zero (Zero Hunger) Programme — focused on promoting complementary interventions such as social protection, education, food production and income-generation initiatives, together with better access to health and water/sanitation services.

- Good results in the fight against child undernutrition in **Peru** are related to the efficient implementation of national social policies. As a result, a number of best practices have been identified. These include a remarkable advocacy campaign pushing for government action and a national commitment on child undernutrition, and **Crecer** — a key national intervention implemented at national, regional and local level by public bodies together with cooperation agencies, civil society and private entities with the specific goal of overcoming poverty and chronic undernutrition.

- **Malawi**, despite persistently high stunting rates and HIV prevalence, has had success in reducing underweight rates. Community-based management of acute undernutrition (CMAM), and government agricultural policies are among the best practices worth highlighting. In addition, the Malawi Vulnerability Assessment Committee (VAC), together with other effective international initiatives, provide early warning on emerging and evolving food-security issues. The cross-border monitoring of food-security issues and regional food-trade dynamics is especially interesting. Malawi has also enjoyed strong political commitment with added impetus due to the direct engagement of the president. This political engagement has led to a greater coordination of policies and a multi-sector approach. The international community has also played a key role by directly supporting the Ministry of Health in mainstreaming undernutrition, ensuring that it is integrated as a significant theme throughout the planning, implementation and monitoring of policy.

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1 Monteiro CA, 2009
Mozambique is a good example of harmonisation between state strategies and international community support. The government of Mozambique has demonstrated a strong commitment to addressing food and nutritional issues as shown by the draft bill on the Right to Adequate Food due to be passed in the near future. This commitment is further evidenced in its Food Security and Nutrition Strategy, a National Plan for Reducing Chronic Undernutrition and the appointment of a Technical Secretariat for Food Security and Nutrition with a strong coordination role. The emphasis on coordination is also outstanding; the coordination effort for food and nutritional security institutions and initiatives is clearly addressed through the National Nutrition Coordination Council (NNCC), which promotes the multi-sector approach by involving most key stakeholders in health, food (from production to trade), and basic infrastructures. As a disaster-prone country, Mozambique has shown strong commitment to preparedness at national level by creating the National Disaster Management Institute and the National Emergency Operation Centre. The disaster management system – anchored in local and regional capacities, and strongly supported by the international community – is capable of a sustainable emergency response.

Over the last two decades Bangladesh has achieved impressive strides forward in poverty reduction. Although there are still large numbers suffering from undernutrition, rates have been significantly reduced. Bangladesh is committed to an emphasis on nutrition security. The high political profile given to the fight against hunger is evident in the Poverty Reduction Strategy Paper (PRSP), which as the main framework on social policies, has significantly included nutrition as its first pillar. By linking climate change adaptation to nutrition and food security programmes and policies, and by promoting the coordination of agriculture expansion initiatives, rural infrastructure and non-agricultural employment opportunities (gender-focused) along with social safety nets and other specific poverty reduction programmes, the PRSP framework has contributed to coherence of policy in Bangladesh.

The selected five case studies analysed in this paper are an example of how, through a combination of effective policies and sufficient investment, some countries have achieved positive results in their undernutrition rates – evidence that reducing hunger is an attainable goal. Based on this research, the following strategies have been identified as the key recommendations for success:

- **GIVE HIGH POLITICAL PROFILE** to the objective of fighting hunger and undernutrition; political impetus is a common aspect of most of the studied cases.

- **ADOPT A MULTI-SECTOR APPROACH** – strategies to address the many causes of undernutrition require policies of coherence and coordination across a variety of sectors.

- **ENCOURAGE CIVIL SOCIETY OWNERSHIP AND PARTICIPATION** – develop viable and sustainable policies to boost ownership and participation among affected populations, improving the acceptance and impact of the initiatives implemented.

- **ADOPT A MULTI-PHASE APPROACH** – combine both short- and long-term approaches to improve nutrition.

- **ENSURE INSTITUTIONALISED COORDINATION** – long-term, sustained and scaled-up action to reduce undernutrition is more likely to succeed with an institutionalised coordination council in place.

- **CONTINUITY OF RELEVANT FINANCIAL INVESTMENT** from host governments and the international donor community, especially in cases where budget support is compulsory for policy effectiveness.

2 Benson T, 2004
1. Introduction

The past two decades have delivered unprecedented progress in quality of life across the developing world. Achievements have not been uniform, and there have been setbacks and disappointments. But, overall, the rate of progress in reducing poverty and increasing access to basic health, education, water and other essential services has been without precedent in many countries’ histories.

However, as previously mentioned, the progress on reducing undernutrition has been comparatively slow. Nevertheless, behind the global statistics there are some relative success stories. This review aims to draw on the evidence from case studies of five countries as examples of good practice and lessons learned that can be implemented elsewhere.

This paper, Phase 1 of the Zero Hunger ACFIN strategy, is largely based on the policies and best practices implemented in Brazil, Peru, Malawi, Mozambique and Bangladesh, countries that have successfully managed to reduce their rates of undernutrition in recent years.

These case studies have been selected according to criteria that has taken into consideration not only their progress on reducing undernutrition rates, but also their success in the following areas:

- policy coherence and coordination
- multi-sector approach
- civil society and international community participation,
- effective implementation of specific policies and programmes for prevention and treatment.

Following current Phase 1 research, Phase 2 of the Zero Hunger ACFIN strategy will be focused on analysing how policies and best practices already identified are applicable in other countries.
Undernutrition: What works?

2. Methodology

2.1 Objectives and expected outputs

General objective
■ The main objective is to strengthen ACFIN’s understanding of why and how some countries have had relative success in reducing rates of undernutrition in order to learn relevant lessons from them.

Specific objectives
■ Identify contexts that have had relative success in reducing rates of child undernutrition and analyse how this has been achieved.
■ Identify policies and practices that have facilitated success and analyse to what extent a reduction in undernutrition has been achieved due to a responsive policy environment and/or social/civil initiatives.

2.2 Methodology

Data collection was based on a literature review of selected countries – national policies and programmes, national nutrition surveys, agriculture and food production documents, external and internal evaluations of policies and programmes, socio-economic analyses, Millennium Development Goals (MDG) progress analyses, etc. As a complementary source of information, in Peru two additional informal interviews with relevant key informants (ACF Spain Head of Mission and the OPS-WHO Public Health Advisor in Peru) were conducted.

Following an extensive literature review, contexts which have had relative success in bringing down rates of undernutrition were identified. Once selected, key indicators for each country were analysed over a period of 15 years, from 1995 to 2010. Selected key indicators include: undernutrition, health coverage, morbidity, exclusive breastfeeding, water and sanitation, education, socio-economic and food production. Trends of these key indicators are summarised in the narrative and further developed in Annex 1 as a fact sheet, available for every selected country.

Analysis of each country has been structured as follows:
1. General socio-economic situation
2. Nutritional status
   – stunting, underweight and wasting rates, and other key indicators
   – agriculture sector
   – policy environment
   – civil society and international community role

2.3 Limitations

Major constraints identified in conducting this study are as follows:

ACCESS TO INFORMATION The scope of this study is rather ambitious; in aiming to cover over 15 years of development, it was inevitable that the evaluators would be constrained by unequal and sometimes limited access to information, especially less recent information on donors’ strategies and funding.

METHODOLOGICAL APPROACH In this regard, it is important to highlight that the fact that this review is entirely based on secondary data – no field visits or direct observations have been carried out. This might affect the quality of the data analysed.
3. Results

3.1 Regional nutrition trends

3.1.1 Latin America

This region has the lowest under-five mortality rate in the developing world, with the highest average annual rate of decline (4.6% in 2000–2008 and 4.2% in 1990–1999). The two most populous countries in the region, Brazil and Mexico, clearly have a disproportionate impact on regional success rates. However, the region is marked by severe disparities and serious economic and social crises that continue to affect child nutrition. Urban-rural disparities remain a challenge in the Latin America/Caribbean region. Overall, children living in rural areas are twice as likely to be underweight as children living in urban areas (Bolivia, Mexico, Peru).

Although stunting and underweight rates dropped dramatically in Latin America and the Caribbean between 1980 and 2005, stunting, which still affects 14% of children in the region, and iron deficiency anaemia (29.3% prevalent in preschool-age children) are major challenges. Wasting is not a significant problem in the region, except in Haiti and in some pockets of vulnerable areas affected by seasonal climatic conditions. Analysis of the prevalence of underweight children under five shows that the Latin America/Caribbean region is on track to meet the MDG nutrition target. Underweight prevalence in children under five reduced from 11% in 1990 to 6% in 2008 (by an average 3.8% every year) representing the fastest regional progress. Currently, 4% of the region’s children are underweight.

Over the last 30 years, Latin America has developed a number of programmes, strategies, projects and laws aimed to ensure food security and to fight against hunger. Despite the fact that most countries have not opted for a multi-sector approach, food insecurity and nutrition issues are addressed in all the diverse policies and/or strategies in place:

- small-scale agriculture and rural development
- social protection and food
- nutritional healthcare
- education and training in food and nutrition.

Countries that have been successful in reducing undernutrition have been focused on both social protection with conditional cash-transfer programmes and multi-sector approaches. There are a number of relevant initiatives in the region, such as the Bolivia Desnutrición Cero programme (Zero Undernutrition), Peru Estrategia Crecer (Growth Strategy), the Argentinian Plan Nacional Hambre más Urgente (Urgent National Hunger Plan), and the Colombian programmes, Bogotá sin Hambre (Bogotá Without Hunger), Red Seguridad Alimentaria (Food Security Network), and the Plan Decenal de Promoción, Protección y Apoyo a la Lactancia Materna (Ten-Year Plan for Breastfeeding Promotion, Protection and Support).

Mexico and Brazil are the two countries leading the fight against hunger and the reduction of undernutrition in the region. They have both opted for broad social programmes, high coverage, multiple agency and institutional participation, and major budget support: Vivir Mejor (Better Living) in Mexico is trying to build an extensive network of programmes to support the most vulnerable; the programme Oportunidades,
for instance, is reaching more than five million families with an estimated annual budget of five billion dollars. Undoubtedly, the most successful programme in the region is *Fome Zero* (Zero Hunger) in Brazil, further developed in the Brazil case study chapter.

### 3.1.2 Africa

In most parts of the world, rates of hunger and undernutrition have fallen significantly in recent years, but those in Africa have shown less improvement. Moreover, available national data does not always reflect the disparities and pockets of undernutrition existing in some countries. Current efforts to fight hunger are being implemented through different initiatives (international, continental, regional and national). The main challenge remains how to strengthen a holistic approach to agricultural development that will better address the multidimensional nature of food and nutrition security, and how to avoid the negative impact of natural and human-induced disasters, including conflict and the spread of HIV/AIDS.

Overall *stunting* rates in Africa declined four percentage points (38% to 34%) between 1990 and 2008. During the same period, stunting rates declined significantly in the following countries: Mauritania (57% to 27%), Uganda (45% to 32%), Mozambique (55% to 44%), Ethiopia (64% to 47%) or Eritrea (66% to 38%). Overall decline in *underweight* rates has been even less, decreasing just 3% between 1990 and 2008 (28% to 25%). That said, underweight rates have shown some improvement in Mauritania (57% to 27%), Malawi (29.9% to 21%), Ghana (27% to 9%) and Mozambique (27% to 18%). Despite the decline in stunting, the absolute numbers of stunted children actually increased by nine million, due to Africa’s population growth. Finally, *wasting* rates are also high and have not shown significant improvement. Currently, Africa estimates 10% of wasting children, while Nigeria (14%), Ethiopia (12%), Sudan (16%), RDC (10%) and Egypt (7%) are among ten countries with the largest numbers of wasted under-fives in the world.

In 2003, the African Union and its members endorsed the Comprehensive Africa Agriculture Development Plan (CAADP) showing a political commitment to erad-
icate hunger in their countries from a poverty alleviation perspective. CAADP’s goal, to eliminate hunger and reduce poverty through agricultural development, is based on four pillars: land and water management, market access, food supply and hunger, and agricultural research. This plan committed to increase public investment in agriculture (up to a minimum of 10% of national budgets) and to attain an average annual growth rate of six percent. So far, only two countries have reached this objective (Malawi and Zimbabwe), but 18 countries have adopted the regional strategy at national level. The African community also endorsed the African Regional Nutrition Strategy 2005–15 that integrates undernutrition as one of the most important health and social challenges in Africa. As a main priority for fighting undernutrition in Africa, the Regional Nutrition Strategy recommends the integration of nutrition as a specific issue in national policy-making, and to develop further regional and/or national programmes to promote these initiatives.

At national level, 31 African countries had defined their Country’s Poverty Reduction Strategies (CPRS) under the auspices of the World Bank (WB) and the International Monetary Fund (IMF). CPRS priorities include the need to improve institutional governance in the fight against hunger; the reinforcement of access to basic social services; and the need to improve support for productive sectors. Other issues include the importance of addressing inter-sector dynamics (Mali PRS 2007–2011) and the need for better governance (Mauritania).

One of the most successful approaches concerns the treatment of severe acute undernutrition (SAM). Since it was first introduced in Malawi in 2002, the Ready-to-Use Therapeutic Food (RUTF) initiative was included in national protocols in order to increase treatment coverage in Malawi, Burkina Faso, Mali, Niger and Mauritania. These countries have integrated the African Regional Nutrition Strategy 2005–15 in their National Nutrition Strategies by applying a community-based management of acute undernutrition and strengthening national capacity and skills. Malawi, one of the most successful adopters of this initiative, will be further developed as a case study in the following chapter.

3.1.3 Asia

In the past 30 years Asia has experienced dynamic growth and structural transformation and achieved substantial poverty reduction. The incidence of people living in poverty fell from more than 50% in the mid-1970s to 18% in 2004, and it is expected that the continuation of current trends will dramatically transform Asia by 2015.

However, south Asia still has staggeringly high levels of underweight children despite minor improvements (a fall from 37% to 31% between 1990 and 2008). India, Bangladesh and Pakistan together account for half the world’s underweight children, despite being home to just 29% of the developing world’s under-five population. The five countries with the world’s highest reduction of underweight rates in the same period include Bangladesh (67% to 43%), Vietnam (45% to 20%) and Malaysia (23% to 8%). Progress on stunting has been particularly notable in Asia, where prevalence dropped from 44% around 1990 to 30% around 2008, a reduction influenced by marked declines in China (33% to 11%). National stunting rates have also declined significantly in a number of countries over the same period: Bangladesh (63% to 43%), and Vietnam (57% to 36%). A number of Asian countries have wasting rates that exceed 13%, including Bangladesh (13.5%) and India (20%). While East Timor, where 25% under fives are wasted, 8% severely, has the highest prevalence of wasting in the world.

Despite these figures, acute undernutrition treatment strategies are not top of political agendas. In many South Asian countries, chronic conditions of energy-deficient diets and lack of access to safe sanitation are also compounded by the poor educational and
social status of women and girls. South Asia is the only region in the world where girls are more likely to be underweight than boys. In most South Asian countries nearly 50% or more women of reproductive age are anaemic, and anaemia prevalence among pre-school children has not dropped below 50% for more than two decades.

In 1975 agriculture accounted for 30–40% of GDP and for more than 49% of the workforce across the region, so growth in this sector was a major source of overall economic growth well into the late 1980s. Agricultural growth was driven by productivity increases in agriculture resulting from higher yields, expansion of irrigation, higher agricultural labour productivity, and scientific and technological advances.21

In South Asia these productivity increases were in large part due to the Green Revolution, whereas in other countries they were driven mainly by agricultural policy reform. Although early growth in China’s agricultural income was accelerated by the effects of the Green Revolution, later growth resulted from the break-up of collective farms, the introduction of the household responsibility system, reforms to the procurement system, and the liberalisation of agricultural prices. Picking the ‘low-hanging fruits’ of agricultural reform not only resulted in a one-time gain to agricultural growth, but also triggered a monumental expansion of the Chinese economy.

21 Islam N (ed), 2008
3.2 Case studies

1 Brazil

2 Peru

3 Malawi

4 Mozambique

5 Bangladesh
CASE STUDY 1

Brazil

1 General context

Brazil, known as one of the emerging BRIC powers alongside Russia, India and China, is the most prominent of our case studies in its success at fighting hunger and undernutrition. Since 1990, sustained and inclusive economic growth has resulted in Brazil being ranked 75th in the world in terms of economic growth. This is also reflected in its strong HDI score. From 1990 to 2008, the population living on less than $1 per day decreased from 16% to 5%. This success is due to a combination of political stability, economic growth, social public policies, income redistribution, environmental responsibility and social justice.

Although Brazil has had a history of economic boom and bust and its development has been hampered by high inflation and excessive indebtedness, reforms in the 1990s, promoted by the government of Fernando Henrique Cardoso, and ongoing macro-economic and social policies have resulted in an extended period of stability, growth and social gains. Moreover, Brazil’s economy has continued to grow even during the global financial downturn; GDP grew by an average rate of 3.12% over the last 15 years, with maximums of 10.1% in 1995–96 and minimums of –2.14% in 2008–09 (see Brazil fact sheet in Annex 1).

Since 2002, with the election of Luiz Inácio Lula da Silva as president, Brazil experienced further significant economic and social development. A two-pronged strategy that linked economic stabilisation, growth incentives and social inclusion was successfully implemented. As a result, Brazil has become a key regional and significant global player. However, despite the innovative social programmes and inclusive economic growth that have been gradually ironing out inequalities in recent years, the government still has to address the major issues of land distribution and management, middle income inequalities and rural poverty (51% of the 36% rural population still lives under the poverty line).

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22 According to the 2008 UN Human Development Report, Brazil’s Human Development Index score was 0.8.
23 ODI, 2010
24 Compared with 35% of the total population (IFAD, 2010)
2 The fight against undernutrition: measures and outputs

2.1 The state of undernutrition in Brazil
(See complete sources in Brazil fact sheet, Annex 1)

The latest nutrition data available from Brazil shows that incidences of both underweight and wasting children have been virtually eradicated across the entire country, including in north-east Brazil and lower income groups among whom these forms of undernutrition were still prevalent in the mid-1990s. Underweight prevalence in under-fives has been reduced from 13% to 1.7% (1994–2006); wasting prevalence is below 2% and stunting prevalence fell by half between 1996 and 2006 (from 13.5% to 6.8%), an annual decrease of 6.3% (see Brazil fact sheet, Annex 1).

Indicators related to the causes of undernutrition have also evolved positively: the proportion of the population below the minimum level of dietary energy consumption decreased from 10% in 1991 to 6% in 2004, and there were substantial improvements in women and children’s primary healthcare coverage between 1995 and 2008. As an example, the increase in measles immunisation (from 74% to 99%) put Brazil on an index of 10 countries with the highest average annual rates of relative progress in antenatal care coverage (86% to 98%). In addition, under-five mortality rates for the whole country saw an intense and systematic decline between 1996 and 2008, and the maternal mortality ratio (MMR) decreased from 98 to 58 per 100,000 live births during the same period. However, exclusive breastfeeding until six months is low, and the proportion of pre-school children with anaemia is classified as a severe public health problem.

In addition, access to universal compulsory education has advanced significantly over the last three years. Female education (increased from 21.3% to 56.8% between 1992 and 2008) has contributed to the reduction of undernutrition in children. Although Brazil has achieved universal or near universal coverage of improved drinking-water sources in urban areas, coverage in rural areas is still low (84%).

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25 DHS, 2006 (PNDS 2006)
26 According to DHS (2006) the disparity between children from economically poorer and richer families has decreased from 24.6 to 6.2 percentage points.
27 Child stunting declined spectacularly in the Northeast, from 22.2% to 5.9%, eliminating the traditional, often regarded as intractable, difference that existed between this region and the country’s Central-Southern regions.
28 ODI, 2010
30 WHO, UNICEF, UNFPA, World Bank, 2010
zil’s urban-rural disparities are especially extreme in sanitation, with an urban coverage rate of 87% versus 37% in rural areas.31

2.2 National policies and initiatives

Social policies set up over the last two decades, particularly those since 2003, are key to Brazil’s successful fight against poverty and hunger. Where the government has focused on covering basic needs, it has integrated Millennium Development Goals into policy,32 developing the national Zero Hunger (Fome Zero) Programme as a decisive tool, and accompanying this with parallel initiatives (as listed below). As a result, Brazil has achieved a 75% reduction in those living on less than US$1 per day.

The Zero Hunger Programme: Hunger, infant undernutrition and the right to food

At the core of the Zero Hunger Programme is the promotion of Brazilian citizens’ right to adequate food through nutritional security and social inclusion.33 This rights-based approach has its main expression in the Food and Nutritional Security Organic Law (September 2006). By legally binding the government to fulfil its commitments on food security, the law strengthens political engagement and makes this approach exceptional among other contexts in the fight against hunger.

The programme is the result of a long-term process which began in the 80s, when civil society started to push for the fight against hunger to be made a national priority.34 The movement has its latest and strongest expression in the Brazilian Forum of Food and Nutritional Security (1998), a national network of social organisations, experts and public servants. Since 2002, the government has centred its social policies on the fight against hunger, setting the Food and Nutrition Security Council (CONSEA) under the direct control of the president. The council takes a multi-sector and multi-stakeholder approach by integrating and coordinating all ministries concerned (social action, public health, agriculture), and has played a key role in the promotion of national policies in the fight against hunger.

The Zero Hunger Programme is structured around four axes:

1. ACCESS TO FOOD

This is addressed through the following initiatives: Bolsa Família (household cash transfers), people’s canteens, school feeding, the food and nutritional surveillance system, vitamin A distribution and tax incentives to food production. It is worth highlighting the Bolsa Família programme,35 a conditional cash transfer scheme covering 12 million families.36 Beneficiaries are subject to a number of conditions, including: follow-ups on the health and nutritional status of all family members, enrolment of school-age children in school, demonstrating satisfactory attendance rates and participation in nutrition education sessions.

Impact evaluations of the Bolsa Família programme have shown positive effects on child nutrition, education and health in households receiving Bolsa Família payments. According to the 2005 Chamada Nutricional37 (Nutritional Call), participation in the Bolsa Família programme had a positive impact on child growth, at least for the youngest children.

■ Stunting among beneficiary children aged 6–11 months was 3.3% lower than among non-beneficiary children (5.3% vs 2%). There was no sig-

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31 UNICEF, 2006 Progress for Children: A Report card on water and sanitation
33 Definición programa Fome Zero, conceito http://www.fomezero.gov.br/o-que-e
34 In 1986 the first Conferencia Nacional de Alimentación y Nutrición (CNAN) took place. By the 90s, a new social movement had been created, with thousands of community based committees. This initiative was taken forward by the government which created the National Food Security Council (CONSEA).
35 In Brazil, the Bolsa-Escola (Conditional School Attendance Income Transfer Program), created in 1995, was the first of its kind. This was followed by the Bolsa Alimentação (Nutrition Programme), Cartão Alimentação (Nutrition Card) and Vale-gás (Cooking Fuel Supplement). In 2003, these programmes were combined into the Bolsa Família (BF).
36 http://www.mds.gov.br/bolsafamilia
37 Análise do inquérito ‘Chamada Nutricional 2005’ realizado pelo Ministério do Desenvolvimento Social e Combate à Fome e Ministério da Saúde
significant impact on children aged 12–36 months (MSD 2005). The lack of impact on these children might be related to a failure to monitor children’s growth through regular visits to a health centre even though such visits are a requirement of the programme.

- Infants are more likely to receive their vaccinations on schedule.
- School attendance by boys and girls rises by 4.4%. The largest gains have occurred in the historically disadvantaged northeast, where enrolments have risen 11.7%.
- Children are more likely to progress from one grade to the next. This is especially true of girls aged 15–17, who are at greatest risk of dropping out. Bolsa Familia increases the likelihood that a 15-year-old girl will remain in school by 19%.
- Pregnant women have 1.5 more pre-natal visits with a healthcare professional.
- There was a 6% increase in caloric availability and a 9% increase in dietary diversity.

2. INCOME-GENERATING ACTIVITIES

These include professional training, promotion of sustainable economic activity, production-oriented micro-credits, productive organisation and support to cooperatives.

3. SOCIAL ARTICULATION AND MOBILISATION

Social mobilisation and citizenship education, public and social agents, capacity building, aid and donation mobilisation, private and public partnerships, and social control (social participation in monitoring the actions of Zero Hunger).

4. STRENGTHENING SMALLHOLDER AGRICULTURE

This is achieved through the National Family Agriculture Programme, Harvest Guarantee, Family Agriculture Insurance and the Food Purchase Programme. A smallholder credit programme facilitates access to investment capital, and the food acquisition programme ensures state purchases for public institutions (hospitals, schools and prisons) or for the creation of national reserves.

Public health policy

Public health has been identified as a top priority, as global results show (see Brazil fact sheet in Annex 1). The four main public initiatives developed include overall health services coverage, crude child mortality rate, maternal mortality, infant vaccination coverage and the reduction of HIV/AIDS and malaria:

- Family Health Programme
- actions oriented towards child healthcare
- National Policy of Integral Health and Women Care (PNAISM)
- National Immunisation Programme (PNI).

The Family Health Programme is linked to a reduction in child mortality. From 1990 to 2002 the programme’s coverage increased from 0% to 36% (a 10% increase was associated with a 4.5% decrease in child mortality). Such improvement may be partly attributed to the reorganisation of the primary care system, which focuses on the family in its physical and social environment by developing actions for health promotion and disease prevention.

The Family Health Programme also contributed to a reduction in underweight rates for under-twos, especially among those with a vulnerable socio-economic profile (and therefore at a higher risk of undernutrition). High rates of infectious diseases in Brazil have an impact on the nutritional status of affected popula-
Undernutrition: What works?

Strategies to fight this are addressed through the National Programme of Sexually Transmitted Diseases, Aids and Hepatitis, as well as three national programmes to control malaria, tuberculosis and leprosy.

**Agriculture sector**

Despite the rapid pace of industrialisation, the growth of the agricultural sector has been impressive; agriculture still accounts for about 11% of GDP and 25% of total employment. Prior to the establishment of the World Trade Organisation, Brazil had already unilaterally implemented a series of economic reforms further pursued in a regional context with the establishment in 1995 of the Southern Common Market (MERCO-SUR). Brazil’s total agricultural output (measured in constant prices) increased by nearly 40% in the 1990s, and currently Brazil is the world’s largest producer of coffee and sugar, and one of the largest producers of soybean products, orange juice, cocoa, beef, tobacco and cotton. Its agricultural production accounts for around 30% of its total export revenue, and as a member of the Cairns Group, it played an active role in the Uruguay Round negotiations on agriculture.

However, major transformations are still taking place, and in many cases these involve significant social costs. High rural indebtedness, growing income disparity between small and large farmers, and the persistence of poverty and food insecurity are some of the transitional costs of the reform measures and economic transformations. Land reform has also emerged as a key issue, and while there is a broad political consensus on the net social benefits of liberalisation, the cost to affected groups is addressed by the government through targeted assistance programmes.

**Gender policies**

The National Policies Plan for Women (*Plano Nacional de Políticas para as Mulheres*) is composed of 199 actions dealing with 26 priorities structured around four axes:

- self-reliance and gender in the working environment and citizenship
- inclusive education
- women’s health, sexual and reproductive rights
- action against gender violence.

These policies work with various government agencies to improve the living conditions of Brazilian women facing inequality and social, sexual, or ethnic discrimination. In relation to the reduction of undernutrition, maternal education has been one of the key factors behind success (see Section 3).

**Safe drinking water and sanitation policies**

The National Secretary for Environmental Sanitation has developed the Sanitation for All Programme (managed by the Ministry of Urbanism). The National Secretary for Mobility and Urban Transports (SEMOB) and the National Secretary for Housing (SNH) are also involved. The programme’s objective is to raise the health and habitat standards of slum populations through improved sanitation.

**2.4 Role of the international community**

The role of the Official Development Assistance (ODA) does not seem to be highly relevant. It represents a small proportion of GDP (around 0.745% in 2009) and is targeted at mainstream, mainly environmental and governance issues, so its impact on hunger and undernutrition is marginal.

The European Commission (EC) has mainly prioritised areas such as the bilateral Brazil-EC dialogue, higher education and environmental issues. Nutrition, food security and health are not a priority of the National Indicative Plan 2007–13. Spain has prioritised food security in its bilateral agreement (*Comisión Mixta 2003–07*). Some donors such as the GTZ (German Cooperation) have chosen to support the Zero Hunger Programme, and at multilateral level, the World Bank has mainstreamed the social protection sector through cash support (*Bolsa Familia* programme) and youth employment schemes.
The leading donors for Brazil in the 2002–03 period were Japan (€173 million) and Germany (€75 million).

The World Bank is still the main financial partner with a €6.1 billion portfolio for three areas; a more equitable Brazil, a more sustainable Brazil and a more competitive Brazil.

3 Conclusions

Brazil’s overall data shows impressive improvements in child nutrition, and the country has made consistent progress on the MDG 1 indicators: underweight rates, the proportion of the population below the minimum level of dietary energy consumption, and the proportion of the population living on less than US$1 per day have all decreased.

Best practices are to be found at both policy and programme level:

3.1 Best practices and lessons learned at policy level

AT POLICY LEVEL, the factors causing Brazil’s outstanding reduction in child undernutrition seem to relate to improvements in the coverage of essential public services (elementary education, primary healthcare, and sanitation) as well as in increases in family income and support for family-based agriculture. Best practices contributing to the improvement of children nutrition are summarised below:

POLITICAL WILL AND THE RIGHT TO FOOD APPROACH
Since 2002, the fight against hunger has been at the centre of social policy-making in Brazil. This political impetus has promoted policy coherence (social, educational and agriculture policies), resource allocation and stakeholder participation. The Right to Food approach strengthens the engagement to fight against hunger by legally binding the government to fulfil its commitments.

MULTI-SECTOR APPROACH AT PUBLIC POLICY LEVEL
Multi-sector approaches have been put together in a complementary way to achieve one goal. The Zero Hunger Programme planning, coordination and implementation has been led by the president. The parallel promotion of the different health services and nutrition education basic packages, access to safe water and sanitation programmes, social aid programs (cash transfers to purchase food and essential goods), school feeding initiatives, food production and household income generation initiatives are key to this success.

PARTICIPATION OF CIVIL SOCIETY
The fight against hunger in Brazil started 30 years ago as a civil society initiative. Civil society (scientific experts, community-based organisations, NGOs, solidarity committees etc) has continued to push public institutions to address hunger as a key political issue. The space for participation promoted by the government, especially since 2002, has been a decisive boost to the empowerment of civil society. The National Council for Food and Nutrition Security is the most visible example of a number of initiatives promoting participatory budgets, implementing local committees and monitoring social actions.

IMPROVING SMALLHOLDER PRODUCTIVITY AND LIVELIHOODS
The Zero Hunger Programme included the family-based agriculture support through the National Family Agriculture Programme, Harvest Guarantee, Family Agriculture Insurance and the Food Purchase Programme. These have contributed to higher incomes for small-scale producers, and improved household food security levels and reduced undernutrition as a result.

3.2 Best practices and lessons learned at programme level

At programme level, the main factors contributing to reduced undernutrition include:

IMPROVEMENT IN MATERNAL EDUCATION
Positive maternal schooling is the single most relevant factor in the reduction of child undernutrition. A 100% increase in mothers with at least elementary schooling is linked to a 25.7% decline in child stunting.
INCREASED PURCHASING POWER FOR THE POOR  Specifically, 21.7% of the decline in child stunting can be attributed to the substantial increase in purchasing power of the country’s poorer families. Evidence has shown that cash transfer programmes have also reduced child stunting in Mexico and Nicaragua. However, impacts on stunting have not been consistent across programmes.

Economic growth and vigorous income redistribution policies have led to increasing income among the poor and promoted social inclusion.

INCREASED COVERAGE OF MATERNAL AND CHILD PRIMARY HEALTHCARE  An additional 11.6% of the decline in stunting can be attributed to the expansion of maternal and child primary healthcare linked to the Family Health Programme (Programa de Saúde da Família – PSF), emphasising prevention, education, and equal access to services.

INCREASED COVERAGE OF WATER AND SANITATION SERVICES  Another 4.3% of the reduction in stunting is due to a relatively modest increase in the coverage of water supplies and sewage services. Between 2001 and 2006, coverage of the sewage network increased from 81.1% to 83.2%.

3.3 Challenges ahead

The need to ensure continuity for current policies, by integrating them as state benchmarks rather than just as specific policies of the incumbent Workers’ Party, is the main challenge ahead.

Updating existing information and nutritional statistics at national level is another pertinent challenge ahead. There are no national nutritional surveys for the period 1996–2006, and there is a weak nutritional surveillance system in place. Strengthening capacity for national nutritional surveillance would not only reinforce acknowledgment, transparency and accountability of nutritional information and data, but would also support the potential need for policy and strategic changes.

Evidence has shown that cash transfer programmes have also reduced child stunting in Mexico and Nicaragua. However, impacts on stunting have not been consistent across programmes.

Lopes M and Carmagnani M, 2001

CASE STUDY 2

Peru

1 General context

In recent years, Peru has achieved political stability and institutional consolidation with two consecutive democratic elections. Alan Garcia won the presidential elections in 2006 by focusing his campaign on economic growth and the fight against poverty. During President Garcia’s current administration, Free Trade Agreements have been signed with the United States, Canada, Singapore and the Republic of China, and negotiations have concluded with the European Union and the EFTA countries. Over the past few years, Peru’s foreign policy has also focused on developing closer relations with its Latin American neighbours.

Peru’s economy has shown strong growth over the past seven years, averaging 6.8% per year, helped by market-oriented economic reforms and privatisations in the 1990s, as well as measures taken since 2001 to promote trade and attract investment. The Peruvian economy is among Latin America’s best performers, with 7.7% growth in 2006, 8.9% in 2007 and 9.8% in 2008. Despite the international crisis, the Peruvian economy grew 0.9% in 2009, surpassing the Latin American average of –2.3%. This sustained economic growth has had a positive effect on reducing poverty and creating employment, but the country still has a number of issues to resolve. Official figures show that poverty fell from 39.3% to 36.2% between 2007 and 2008. However, there are high levels of disparity between urban and rural areas (see the Peru fact sheet in Annex 1 for GDP growth from 1995 to 2009).  

Peru was one of the few Latin American countries which avoided economic contraction in 2009, despite the world financial crisis. However, it still faces important challenges in terms of poverty reduction, especially in rural areas. These include the creation of a wide social safety net and protection of the environment. At the request of the Peruvian government, the World Bank prepared an analysis and list of recommendations to improve social programmes. In conclusion, it was recommended that Peru make efforts to fine-tune the targeting and efficiency of its main programmes, primarily health and education, which receive 80% of the spending allotted for social protection.  

50 IFAD, 2010  
51 World Bank, 2010

Name: Republic of Peru  
Population: 28.2 million  
Capital: Lima  
Other major cities: Arequipa, Chiclayo, Cuzco  
Area: 496,225 sq miles  
Currency: Nuevo Sol  
GNI per capita: $3,450  

GNI index (2007): 50.5  
Main exports: Fish, gold, copper, zinc, textiles, asparagus, coffee  
Language: Spanish (principal), Quechua, Aymara  
Religion: Roman Catholic (81%)  
Life expectancy: 71 years (men), 76 years (women)  
Source: WB development indicators
2 The fight against undernutrition: Measures and outputs

2.1 Undernutrition in Peru
(See complete sources in Peru fact sheet, Annex 1)

In Peru, as in most countries of Latin America and the Caribbean area, stunting is the most prevalent undernutrition problem among children. Data from the last national nutrition survey in 2009 shows that chronic undernutrition affects 23.8% of children under five years, reflecting a 7.2% reduction compared to 2000. The most significant reduction has been during the last five years (Peru fact sheet in Annex 1). However, nutritional achievements in Peru must be analysed with caution as they cannot be extrapolated to the whole country. Peru shows the highest urban and rural disparities in the world. National estimates of differences at departmental level range from 2.1% (Tacna) to 53.6% (Huencavelica). Depending also on area of residence, chronic undernutrition appears to be 2.8 times higher in rural areas (40.3%) than in urban areas (14.2%).

Underweight rates in under-fives are 4.2%, down by almost half compared to 7.8% in 1996. However, underweight rates are considerably higher in rural areas (7.5%), than in urban areas (2.4%). On the other hand, acute undernutrition is not a major problem, affecting 0.6% of children under five, compared with 1.1% in 2000.

Overall, health service coverage shows improvement. For children aged 12–24 months, national coverage of measles immunisation reached 95% in 2009 (although significant differences at departmental and provincial levels remain, with a variation ranging from 43% in the worst cases to 100% in the best cases). Antenatal care coverage also slightly increased from 84% to 91% over the last decade. The national under-five mortality rate dropped by 70% between 1990 and 2008 (81 to 24). The Maternal Mortality Ratio (MMR) also dropped from 220 per 100,000 live births in 1995 to 98 in 2008. HIV/AIDS in Peru is a concentrated epidemic with prevalence in the general population of less than 1%.

Figures for practices such as breastfeeding are also positive. Between 1996 and 2009, exclusive breast-

52 WHO 2005 growth references are used in this chapter. In the Peru Fact sheet, both NCHS/WHO and WHO references are shown, to allow comparison with 1996.
53 INEI, 2010
54 Peru Millennium Development Goals Report, 2008
feeding up to six months increased moderately (53% to 69.9%). On the other hand, although anaemia in both women and children decreased between 1996 and 2009 (from 56.8% to 37.2% in under fives and 35.7% to 21% in women), levels are still alarming and remain a major nutrition challenge for Peru. Education access improved in the period 1998–2008 (primary school enrolment fluctuates between 90.6% and 94.2%).

Water and sanitation services show some improvements (see Peru fact sheet in Annex 1), spoiled once again by the disparity between urban and rural areas in coverage and access to sanitation services (access to sanitation facilities in rural areas fell from 24.6% to 13.1% between 1993 and 2007).

2.2 National policies and initiatives

The government of Peru has placed the fight against child undernutrition at the top of the political agenda. Resources to address both the determinants of undernutrition and to improve the delivery of nutrition interventions through health services are in place. A joint UN and NGO initiative, Reduce Child Undernutrition, argues that stunting is the most significant handicap preventing economic and social development in Peru. Highly educated and skilled political and technical leadership responsible for implementation of policies and programmes is supported by the UN (in particular the country office of the Pan American Health Organization) and a number of other NGOs.55

The good results of the fight against child undernutrition in Peru are related to the efficient implementation of social policies. These are currently coordinated by the Inter-ministerial Social Affairs Commission (CIAS) and have been fused into 26 programmes (2009) in order to improve efficiency and reduce cost.56 All Peruvian social policies are based upon three axes: 57

- Millennium Development Goals
- National Agreement (signed in 2002)
- national policies.

Crecer (which means ‘to grow’) is a key intervention articulated at national level by public bodies (national, regional and local government), cooperation agencies, civil society and private entities, directly or indirectly linked with the aim of overcoming poverty and chronic undernutrition. The success of a regional programme, (Programa del Buen Inicio),58 inspired the design and implementation of Crecer.59

Crecer aims, by 2011, to reduce poverty by 30% and chronic undernutrition in under-fives by 9%. This strategy is founded on three axes:60

- human capacity development and respect of fundamental rights
- promotion of economic opportunities and capabilities
- establishment of a Social Protection Network, under the direction of CIAS.

Through the Juntos programme (which since 2007 has been highly focused on undernutrition), Peru is in the initial stages of creating a 'nutrition-centred' conditional cash transfer (CCT) scheme aligning efforts of partner agencies and providing an integrated approach. The monitoring and restructuring of Juntos is providing useful lessons and leadership (see Conclusions below). Juntos is improving a number of key welfare indicators (listed below) for beneficiaries of the programme.61 However, positive effects

55 Pan American Alliance for Nutrition and Development (PAAND) is a United Nations interagency institutional initiative set up to facilitate the coordination of international cooperation efforts and resources to promote, agree on, implement, monitor, and evaluate effective evidence-based multi-sector inter-programmatic interventions with a multi-causal approach to undernutrition.

56 Originally, there were 82 programmes.

57 http://www.cias.gob.pe/cias.php?var=2

58 Programme approach included community-based interventions of antenatal care, promotion of adequate food intake during pregnancy and lactation, promotion of exclusive breastfeeding of infants <6 months and improved complementary feeding >6 months, growth promotion, control of iron and vitamin A deficiency, promotion of iodized salt, and personal and family hygiene. The programme emphasized strengthening the capacity and skills of female counselors and rural health promoters.

59 UNICEF, 2009 Tracking Progress on Child and Maternal Nutrition

60 Crecer Presentation; Technical Secretary of the Interministerial Commission for Social Policies.

61 Perova E et al, 2009
NUTRITIONAL INTAKE IMPROVEMENTS (beneficiary households increase spending on foods such as breads and cereals, butter and oils, vegetables, fruit, grains, sugar and tubers).

Agricultural sector

Peru is one of the most ecologically diverse countries in the world, and an estimated 1.3 million hectares (1% of total land area) is farmed. The agricultural sector, which is vulnerable (with subsistence agriculture in the Andean Mountains, and major outputs from river valleys in the coastal zone) and regularly hit by weather anomalies, makes up 12.5% of GDP and over 30% of total employment. Food production has increased consistently over the last 15 years. Major challenges facing the sector are linked to the relatively high rate of poverty and food insecurity, due in part to the dualistic nature of agriculture in Peru, with both a large subsistence and commercial sector.

The incidence of undernourishment – as measured by FAO on the basis of availability of food energy, and its distribution among population groups and requirements – is relatively high (19% in 1995–97). It is in this context that Peru needs to assess its recent experience with trade liberalisation and to contemplate policies for coming years. The general picture is positive, with an increase of the agriculture added value from US$4 billion in 2004 to over US$8.5 billion in 2008 (See Peru fact sheet in Annex I).

2.4 Role of the international community

With the exception of the disruption in international cooperation during the last four years of (former president) Fujimori’s mandate (1998–2001), international donor presence in Peru has been significant.

The US Agency for International Development (USAID), with a total amount of US$523 million for the 2002–2006 period, and EU member states are the major donors. The EU maintained close relations with a significant aid portfolio (€1.376 million in April 2006) and an average growth of 20.5% during the 2003–05 period, representing 2.4% of the national

Main initiatives of Crecer strategy

- **Juntos (Together):** Conditional cash transfers focused on the poorest municipalities aiming to improve household resources and the utilisation of health and nutrition services and educational opportunities.\(^{62}\) This is the main plank of the Crecer strategy.
- Integral care for children and women of child-bearing age programme.
- Literacy programme.
- Food assistance and educational programme. This intervention includes ‘Improved kitchens’\(^ {63}\) to reduce the risk of respiratory infections.
- Water for all – provision of water and sanitation infrastructure.
- Rural agro programme.
- Budget built by results for economic allocation.
- Building Peru (an employment programme).
- Participation of regional and local governments.

are not reflected in final outcome indicators such as undernutrition or anaemia rates. This highlights that CCT schemes need to be complemented by adequate health services and health and education practices.

**MODERATE IMPACT ON POVERTY REDUCTION (6%)** and increasing monetary measures of income (28%) and consumption (increase of 34% on food).

**INCREASE IN USE OF HEALTH SERVICES** (children from beneficiary households are 37% more likely to go through health checks, 22% more likely to get medical attention, and 7% more likely to get vaccinated).\(^ {64}\)

62 The receipt of cash is conditional upon beneficiary participation in health and nutrition (growth monitoring, vaccinations, iron and Vitamin A supplements and anti-parasite checks for under 5 children and antenatal care for pregnant and breastfeeding mothers) and education (School attendance at least 85% of the school year) activities.

63 ‘Improved kitchens’ are wood-burning stoves that divert smoke outside the home through a chimney.

64 Despite some positive impacts, the overall level of utilization of these services among Juntos beneficiary children is below the programme’s goal of universal access. A number of reasons could explain these, from lack of enforcing programme conditionality’s to supply side gaps.

65 World Bank, 2010
budget. Spain (€403 million), followed by Germany (€330 million) and Italy (€182 million) are the biggest European donors. The main priorities of the European cooperation are the fight against poverty and the strengthening of state institutions, democracy and civil society. The EU Delegation in Lima and member states hold periodic coordination meetings. An important initiative launched in 2003 was the preparation of a donor matrix which facilitates analysis of cooperation with European countries that are active in Peru.

While the fight against poverty is one of the main areas of concern for donors in Peru, cooperation also addresses several complementary areas (rural development, support for micro and small enterprises, vocational training, and support for democratisation). Peru has also received considerable humanitarian and emergency aid linked to natural disasters and social violence.

3 Conclusions

3.1 Best practices and lessons learned

The Crecer national strategy brings in Peru a number of lessons learned and best practices identified as follows:

**APPROPRIATE ADVOCACY TOWARDS GOVERNMENT ACTION AND COMMITMENT** The Reduce Child Undernutrition initiative invited, as part of its advocacy effort, all presidential candidates to commit themselves to the reduction of stunting if elected. President Alan Garcia committed to reduce stunting by 5% during his five-year mandate (2006–2011), and as a consequence, the government of Peru has placed the fight against child undernutrition at the top of the political agenda, a priority manifested in the major national strategy, Crecer.

**CONCENTRATION OF RESOURCES** Streamlining social policies has led to better efficiency and effectiveness; previous nutritional programmes have been consolidated into one (the Plan Integral Nutricional), helping focus efforts and resources on the main objectives:

- reducing stunting and anaemia among infants aged six months to three years and mothers
- reducing anaemia in 3–12 year-olds.

**COORDINATION AND INTEGRATED INTER-SECTOR STRATEGY** Crecer has successfully involved all social policies (health, education, water and sanitation, housing, agriculture, etc.) in the fight against child undernutrition.

**CONDITIONAL CASH-TRANSFER PROGRAMMES TO THE POOREST MUNICIPALITIES** Juntos programme initiatives have improved household resources and have increased health and nutrition services and educational opportunities.

**INTERNATIONAL COMMUNITY SUPPORT** The strategic Framework for International Cooperation and national development priorities will make it possible to harmonise and enhance external aid effectiveness, as evidenced in international donors’ financial and institutional support for the Reduction Child Undernutrition initiative.

3.2 Challenges ahead

The Crecer strategy not only lacks its own specific resources, (it is dependent on contributions from government ministries), but is also missing the necessary coordinating mechanisms for monitoring allocated resources. Moreover, national, departmental and municipal Crecer committees created to plan, budget and coordinate the strategy and to ensure the integration of the different actions implemented, have limited capacity to plan, budget, and execute programmes at local level, therefore curtailing local ownership of the programme.

In general, monitoring and evaluation of state investment and impact of programmes implemented is weak, and the framework to support a multi-sectoral approach is limited. Moreover, no common framework has been agreed with the international community and there is insufficient coordination of ODA suppliers. That said,
the benefits of cooperation are clear and will continue to expand: cooperation will build capacity within the sector, encouraging work in areas traditionally neglected by the State, and it will mean that the limitations of public investment budgets will be minimised.
CASE STUDY 3

Malawi

1 General context

Malawi, a multi-party system government since 1994, with presidential and parliamentary elections held every five years, this year enjoyed uninterrupted solid growth for the fifth year in a row, backed by sound economic policies and a supportive donor environment. The strong stabilisation policy in 2004, and the debt relief from the Heavily Indebted Poor Countries (HIPC) initiative brought about a rapid turnaround in government finances, improved management of public spending, and created the fiscal space needed to generate the momentum for the resumption of growth. As such, real GDP growth has averaged about 7% in the last five years, with a peak of 9.7% in 2008, compared to an average of about 2% prior to 2005.

In line with his political manifesto, President Bingu wa Mutharika, elected in 2004, prioritised agriculture and food security, education, transport, rural development, irrigation and water development, youth development and anti-corruption policies, priorities included in the Malawi Growth and Development Strategy (MGDS) (2006–2011). High population growth, increasing pressure on agricultural lands, corruption, and the spread of HIV/AIDS are still the country’s major problems.

Despite some negative figures (for example 53% of the population living under the poverty line), the proportion of the population living on under US$1 per day has fallen dramatically in recent years. Life expectancy has also improved. However, despite some social progress, major challenges such as weak institutional capacity, land constraints, low productivity and high marketing costs remain.

2 The fight against undernutrition: Measures and outputs

2.1 The state of undernutrition in Malawi

(See complete sources in Malawi fact sheet, Annex 1)

Malawi significantly reduced underweight rates from 30% to 21% between 1995 and 2006, and is on...
track to achieve the MDG 1 target of halving child undernutrition by 2013. National wasting levels are relatively low (4% with 0.5% of children found to be severely wasted), yet reflect some improvement since 1995 (7%).70 However, unlike a significant number of other countries in the region (Mozambique, Ethiopia and Tanzania) where stunting rates appear to be declining,71 stunting levels in Malawi72 (together with Burundi and Madagascar), are the highest in Africa, and have hovered around 50% since 1995. The reasons for the pervasive prevalence of stunting in Malawi have not yet been analysed in depth, but it is worth noticing that prevention has not been a priority on the political agenda.

Micronutrient disorders constitute a public health concern in Malawi.73 The only national micronutrient survey (conducted in 2001) revealed that 59% of children under five and 57% of non-pregnant women had sub-clinical vitamin A deficiency. However, since the percentage of the population taking vitamin A supplements reached 95% in 2008, it is likely that the next nutritional survey will show some improvement. Anaemia, which affects 73% of under fives and 45% of women aged 15–49, also remains a public health priority.74

Malawi’s nutrition problem is double-edged; over 6%75 of children are overweight, while around half are stunted. This suggests that dietary diversity rather than food shortage is the problem. This is backed up by evidence that the proportion of population living below the minimum level of dietary energy consumption fell from 45% in 1991 to 29% in 2004. To understand the nutritional situation in Malawi, the prevalence of HIV/AIDS must be taken into account, due to the increased caloric and nutritional requirements of those affected and the decreased productivity that occurs in populations with a high incidence of the disease.76 HIV prevalence in adults aged 15–49 increased sharply in the late 1980s and 1990s, reaching 14% in 2003 and stabilising at around 12% since then. In a remarkable achievement, Malawi has increased coverage of antiretroviral therapy (ART) with support from the Global Fund. The number of HIV patients on treatment rose from 10,761 in 2004 to 198,846 in 2009.

70 It is important to highlight however, that wasting data does not include oedema cases, a widely reported problem in the country
71 UNICEF, 2009
72 Using the 2006 WHO Child Growth standard reference
73 UNICEF MICS Malawi, 2006
74 National Statistical Office Malawi, 2005
75 UNICEF MICS Malawi, 2006
76 UNAIDS, 2004
Another success story in Malawi has been its achievement in halving the proportion of the population without safe access to water. Between 1995 and 2008 access improved from just over half of the population to 80%. On the other hand, access to sanitation facilities remains a challenge (44% of the population still had no access in 2008). Another positive contribution to Malawi’s overall nutritional status is the fact that net primary school enrolment increased between 1991 and 2004, with more girls than boys enrolled in 2007.

2.2 National policies and initiatives

Malawi’s development agenda is defined in the Malawi Growth and Development Strategy (MGDS, 2006–2011) which is the overarching policy framework complementing the Poverty Reduction Strategy (PRS) 2003/2004. The MGDS comprises a growth strategy, which promotes the creation of a conducive environment for private sector development, and a development strategy, focusing on social factors. The MGDS is divided into five themes, including social protection and social development. There are six key priority areas, of which the most relevant to the fight against hunger are:

- the prevention and management of nutrition disorders and HIV/AIDS
- agriculture and food security
- irrigation and water development.

Government commitment to these three areas was highlighted by a significant budget increase during the period 2005/06 and 2008/09 (budget increases averaged 35%, 44%, and 115% a year, respectively).

Nutrition policies

Malawi’s first Food and Nutrition Policy (1990) did not include mechanisms for implementation or budget allocations for explicit nutrition initiatives. In 2004, the Department of Nutrition, HIV and Aids was established under the Office of the President and Cabinet (OPC) (and since 2006 has been managed directly under the aegis of the OPC, rather than under the Ministry of Health, as in most sub-Saharan countries). In 2005, a new Food and Nutrition Policy was approved by the cabinet as a part of the MGDS key priority area: ‘prevention and management of nutrition disorders and HIV and Aids.’

The OPC split the Food and Nutrition Policy in two parts: The Food Security Policy, to be implemented primarily through the Ministry of Agriculture and Food Security, and a National Nutrition Policy (NNP). The NNP addresses many key determinants of nutritional status: prevention, therapeutic interventions and food-based approaches. However, several food crises affecting the country (2002, 2003, 2005) focused nutrition efforts more on treatment than prevention strategies. A published review of community-based management of acute malnutrition (CMAM) in post-emergency contexts has shown Malawi to be an important international example for CMAM good practices and integration of nutrition services into health structures.

CMAM pilot programmes managed by international NGOs (Concern Worldwide and Valid International) started in Malawi during the drought of 2002 and were demonstrated to be effective (in the 2005 crisis CMAM services were scaled up). These efforts led to an expansion of effective treatment, reaching 74% of those in need, compared to 25% for the traditional approach. After extending the initiative to additional districts, the model was adopted as a national strategy in 2006, and its gradual scale-up and integration into the primary health care system began. By 2009, the programme had been scaled up to 330 outpatient and 96 inpatient sites in all of the country’s 27 districts.
HIV/Aids policies

Although there is still more to do, the link between HIV/AIDS and nutrition has been well recognised in Malawi. The mid-term review (MTR) of the National Action Framework (NAF) (2005–2009) acknowledges several efforts aimed at enhancing nutrition and HIV linkages. Amongst others, the MTR notes the development of guidelines on nutrition for People Living with HIV (PLHIV) on antiretroviral (ARV) drugs. The national response to HIV has demonstrated forward planning in this respect by promulgating a set of actions and strategies that would ensure access to public and NGO food security programmes for affected households, and nutrition security programmes among PLHIV.

In 2001, the government of Malawi established the National Aids Commission (NAC) to coordinate a multi-sector response to the epidemic. Since its establishment, NAC has encouraged active participation of various stakeholders in the planning, programming, implementation, monitoring and evaluation of the country’s HIV/AIDS interventions. Malawi has set an example within the region and beyond of how host governments can work with development partners for the common good through pooling systems that foster mutual accountability, transparency and efficiency.

Malawi developed an HIV and AIDS Policy (2003–08) to guide the implementation of the national response to HIV/AIDS. The NAC is responsible for the development and implementation of the National Action Framework (NAF), the national response to HIV containing key objectives, strategies and action points. In 2009 the government launched the National HIV Prevention Strategy (2009–13), encouraging a more integrated approach to HIV prevention in both clinical and non-clinical arenas.

Access to food

Nutrition support remains a challenge due to household food insecurity. Access to food has been tackled via four complementary strategies: improving food production; increasing direct access to food for the most deprived households, managing the impact of food trade at regional level; and mapping populations most at risk from undernutrition.

Malawi’s staple food crop, maize, has responded well to a government policy of subsidising fertiliser, with the objective of enabling growers to cover both domestic requirements and export demand. As result of these policies, maize production increased and net cereal imports reduced between 2005 and 2007. (Figure 4 in Malawi fact sheet in Annex 1)

Social protection policy

In September 2006, the government partnered with UNICEF and the Global Fund to pilot a Social Cash Transfer scheme in Mchinji district. The scheme was set up to protect, promote and transform the livelihoods and welfare of the most destitute households, targeting ultra-poor Malawian households (living on less than $0.10 per day) whose members are unable to work due to disability, age, illness or a high dependency ratio.

The Malawi Social Cash Transfers Scheme (MSCTS) initiative reached a total of 94,386 people in seven districts between 2006 and 2009. Results from an external evaluation illustrate significant positive effects on beneficiary households. These include: improved food security, nutrition, and diet diversification; increased school enrolment, attendance and performance; improved health for adults and children; increased asset accumulation and decreased child labour.

The Cross-Border Food Trade Monitoring System

This has been operating since July 2004, supported by the World Food Programme and the government. It is a cost-effective system that monitors previously unrecorded informal trade flows across the borders of Malawi, Zambia, Mozambique and Zimbabwe. Monthly data is incorporated into national food balance sheets
to improve the allocation of food aid and management of national food stocks. It also informs trade policy and procurement decisions, contributes to the design and targeting of agri-business development programmes and, by tracking agricultural imports, serves as an early-warning indicator for crop-production decisions in coming seasons.

**Malawi Vulnerability Assessment Committee**

Another relevant initiative is the VAC, set up by the Malawi government and the British Department for International Development (DFID). As the only national initiative to survey the food security and nutrition situation, VAC is a small step forward in a weak national surveillance system, but represents a remarkable effort to forecast information in the agricultural sector.

**National Adaptation Programme for Action**

NAPAs provide a process for least-developed countries to identify their most urgent priorities in adapting to climate change – those for which further delay would increase vulnerability and/or costs at a later stage. Malawi’s NAPA identifies the main problem as the impact of extreme events (droughts, floods, and erratic rainfall) on food, health, water, and energy. NAPA highlights the Shire River and surrounding area as particularly vulnerable, and proposes urgent adaptation actions.84 While identification of regions most vulnerable to climate change is a good start, the effects on individuals and populations within those regions have not yet been properly explored.

**Agriculture sector**

Agriculture is Malawi’s main source of growth (35% of GDP), and it continues to be a significant driver of growth through regional imports and exports. The sector supports 85% of the population and accounts for more than 80% of the Malawi’s export earnings. Smallholders are responsible for over 80% of Malawi’s agricultural production, with most farming-production systems dominated by maize. The country’s export trade is dominated by tobacco, tea, cotton, coffee and sugar. The major challenge to shift Malawi away from being an importing and consuming country to an exporting and producing country 85 is still ongoing. Low productivity also reduces competitiveness of Malawi’s agricultural commodities on regional and international markets.

**2.3 Role of the international community**

External funding has played a key role in addressing hunger and undernutrition in Malawi, and bilateral donors have maintained regular and significant funding in the country. The combined effort of donors, multilateral partners and international NGOs (INGOs) has proven very efficient and valuable. HIV/AIDS funding has been especially significant (total HIV/AIDS expenditures rose from US$29.1 million in 2002/03 to US$69.1 million in 2004/05 and US$107.426 million in 2007/08).86

UN priorities are outlined in the UNDAF (United Nations Development Assistance Framework) 2008–2011, with efforts particularly focused on nutrition and health, and basic services such as water and sanitation and education. Agriculture, disaster reduction and social protection are also part of this integrated and multi-sector approach. The UNDAF states that undernutrition will be tackled by addressing its underlying causes and by supporting a more integrated response, including: strengthening communities and service providers’ capacity to prevent and manage nutritional deficiencies; promotion of nutrition-friendly agricultural production; improvement of the nutritional surveillance system; and support for infant and young children’s nutrition. Moderate and acute malnutrition among children under five will be treated with supplementary and therapeutic feeding respectively, and community therapeutic centres will be expanded. Capacity for emergency prevention, preparedness and response will be strengthened at all levels. UNDAF aims to support the Malawian government in the planning and implementation of food and nutrition policies,

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84 http:// unfccc.int/resource/docs/napa/mwi01.pdf
85 IFAD, 2010
86 UNGASS, 2010
and forecasts US$12.6 million of financial support to cover the nutrition sector.

The health sector will receive technical advice in areas of capacity building, disease surveillance, and monitoring and evaluation, as well as integrated delivery of the EHP.

This support is aimed at: increasing access to comprehensive sexual and reproductive healthcare; strengthening child survival interventions; enhancing institutional capacity to deliver quality health services; strengthening mechanisms to improve the healthcare seeking behaviour of individuals/communities; and fostering community involvement. The overall budget estimated for the health sector excluding the HIV/Aids programme is US$49 million.

Regarding WASH, UN support will focus on the provision of water and sanitation in rural areas and improved sanitation and hygiene promotion in rural and peri-urban communities. It will also contribute to a child-friendly, rights-based school concept to ensure pupils’ increased access to safe water supplies and hygiene promotion as part of a comprehensive school health programme and gender-sensitive sanitation facilities. The UNDAF will also support the increase of agricultural productivity, especially at household level, by 2011. It also hopes to stimulate production for commercial purposes by linking producers with processors and exporters. The budget estimated for this sector is US$24 million. The focus on disaster risk reduction includes placing prevention, mitigation and preparation at the top of the development agenda through the use of advocacy, policy dialogue, technical advice and capacity building initiatives.

The EU, a long-time donor to Malawi, launched the 10th European Development Fund (EDF) (which aims to improve the country’s macro-economic situation, strengthen public finance management systems and carry out education and health policy reforms), and the Malawi-EC Strategy (supporting good governance and macro-economic stability). The Malawi-EC Country Strategy Paper 2008–13 (CSP) was signed in December 2007 with a €451 million budget, the goal is to reduce poverty and hunger in an environmentally friendly way: 25% of its budget is allocated to ensure agriculture and food security.

USAID has committed to a four-year programme (2008–2011) with a global amount of US$557 million, including a major investment in the Global Health and Child Survival programmes (US$241 million, representing 43.2% of the total budget). DFID is also a main international player, investing £77.3 million (2008–09) – mainly in public health (40%). DFID led the cash-for-food initiatives that addressed food access for many vulnerable people before and during the 2008 food crisis.

International NGOs have played a key role in supporting and implementing the network of therapeutic feeding centres (run mostly by international NGOs such as Concern Worldwide, Save the Children and Action Contre la Faim). In addition, the NGO community has consistently worked to strengthen local capacities (training programmes, national administration running costs and institutional support) and to promote essential rights into national political priorities.

3 Conclusions

3.1 Best practices and lessons learned

Despite high stunting rates and HIV prevalence, Malawi has had success in reducing underweight rates. Among the best practices worth highlighting are those related to treatment strategies:

Political agenda including hunger and undernutrition

The government’s remarkable engagement and leadership on fighting hunger and undernutrition cannot be overstated. Led by the Ministry of Health (MOH), this engagement has led to the development and expansion of CMAM (as a part of essential health and nutrition activities) and the development of the National Nutrition Policy.
Undernutrition: What works?

Coordination and implementation of treatment strategies

OPERATIONAL IMPLEMENTATION OF CMAM TREATMENT AT DISTRICT LEVEL. Even though CMAM is not yet officially included in health implementation plans, the MOH (supported by the MOH Nutrition Unit and several INGOs) encourages district-level personnel to do so in order to expand its operational implementation plan in rural areas. This district-level approach has contributed to significant success in Malawi, by enabling the most vulnerable of the population (rural) to access nutritional, medical and paramedical care.

COORDINATION. MOH strong leadership on CMAM at national-level through monthly MOH-led Targeted Nutrition Programme meetings has strengthened programme management and supported harmonisation of approaches among the various stakeholders (NGOs, UNICEF and the MOH itself).

Malawi Social Cash Transfers Scheme (MSCTS) and agricultural input subsidies

Government policies subsidising maize production and the reduction of net cereal imports, especially for the period 2005–2007, have had positive consequences on market prices and access to food.

Moreover, the MSCTS has provided valuable information on strengths and weaknesses in government capacity. Lessons learned have encouraged further government commitment, the promotion of cash transfers as an effective development instrument, and the mobilisation of resources for scaling up to a national programme.

Food security monitoring

THE CROSS-BORDER FOOD TRADE MONITORING SYSTEM. A monthly bulletin circulated among stakeholders in the region, regional bodies, donor countries and other UN agencies such as FAO.

THE MALAWI VULNERABILITY ASSESSMENT COMMITTEE (VAC) is complemented by other effective international initiatives such as the Famine Early Warning Systems Network (FEWS NET) and the Comprehensive Food Security and Vulnerability Analysis (CFSVA). VAC collaborates with international, regional and national partners providing early-warning and vulnerability information on emerging and evolving food-security issues.

Civil society participation

Civil society’s role in Malawi’s efforts against hunger and undernutrition has gradually increased. Though in general terms Malawian organisations lack robust technical, financial and managerial capacities, there are some remarkable initiatives that aim to strengthen local civil society capacity and participation: the medical school curriculum now includes training on the management of severe acute malnutrition (SAM) and students on public health masters courses learn about CMAM; civil society organisations such as the Bunda College of Agriculture are included in national forums (VAC); while INGOs are going through an interesting nationalisation process (CARE Malawi).

Committed international community support

INGOs, UNICEF and major donors have played an important role in supporting the MOH and the OPC to make child undernutrition a political priority and to effectively implement the treatment of acute undernutrition in areas of need. Stakeholder participation has been strong since CMAM was piloted, with national dissemination workshops held on pilot findings for MOH, NGOs and UNICEF staff, and many district-level CMAM orientation meetings for MOH, NGO and local officials. The implementation of a CMAM Support Unit (CSU) has enabled the MOH to have access to CMAM technical assistance.
Multi-sector approach

A multi-sector approach is adhered to by most multilateral organisations and donors by complementing food-security and economic-development initiatives with public-health and emergency food-aid and nutritional programmes. WFP, UNICEF, USAID, the EC and DFID have all contributed significant funding and strategic mainstreaming in recent years. HIV/AIDS programmes and HIV-affected people have been targeted in order to address food insecurity and undernutrition among this highly vulnerable group.

3.2 Challenges ahead

Despite positive examples highlighted above, a number of major challenges and gaps remain, including:

- Implementation of the national nutrition policy is still very much focused on treatment. Prevention activities aimed at the reduction of stunting levels need to be promoted.

- Funding of nutrition activities, including CMAM services, relies heavily on external support (bilateral donors, NGOs and UNICEF).

- Challenges specific to the treatment of severe acute undernutrition (CMAM) include:
  - High turnover of policy makers and planners at the MOH slows and threatens the expansion of CMAM coverage.
  - A chronic lack of health staff, particularly of nurses and physicians at district level, undermines the integration and sustainability of CMAM services.
  - Overall difficulty of access to health centres: Despite the decentralisation of services, distance remains an important barrier to CMAM services and makes access highly dependent on NGOs for transport.
  - Uncertain access to CMAM supplies: National production of RUTF is well established and has received UNICEF certification, however, there is no national strategy for long-term provision of RUTF so it remains highly dependent on UNICEF and NGOs.
  - Although acceptable, the quality of CMAM services needs improvement, especially for the monitoring of cases.
CASE STUDY 4

Mozambique

1 General context

Mozambique, one of the poorest countries in the world at independence, has emerged from decades of war to become one of Africa’s best-performing economies. The country has enjoyed a remarkable recovery, achieving an average annual rate of economic growth of 8% between 1996 and 2008, the highest growth rate among African oil-importers.

Despite encouraging development progress made by the government in recent years (the number of Mozambicans living in absolute poverty fell from 70% in 1997 to 54% in 2003), poverty continues to be severe and widespread, with cyclical food insecurity and undernutrition affecting southern and central Mozambique. Poverty – caused by isolation, inadequate infrastructure and the consequent lack of access to goods and services – is still predominantly a rural phenomenon in Mozambique (over 80% of poor households are in rural areas), and rural communities are extremely vulnerable to natural disasters, particularly in the southern and central areas of the country.

The rural road network is in very poor condition and basic services, including access to safe water and education, are inadequate.

The latest critical periods for the Mozambique economy included the rise of food prices in 2008, and the recent global food, fuel, and financial crisis.

2 The fight against undernutrition: Measures and outputs

2.1 The state of undernutrition in Mozambique

Despite some negative undernutrition rates, Mozambique has improved the following nutrition indicators in children under five during the last 15 years:

- Underweight rates fell from about 27% in 1995 to 18% in 2008.

Name: Republic of Mozambique
Population: 22.9 million
Capital: Maputo
Area: 799,380 sq km
GDP per capita (2009): US$900
GINI Index (2002): 47.3
Population under poverty line (2009): 54%

Main exports: Aluminium, prawns, cashews, cotton, sugar, citrus, timber, bulk electricity
Language: Portuguese (official)
Religion: Catholic 23.8%, Muslim 17.8%, Zionist Christian 17.5%, other 17.8%, none 23.1%
Life expectancy: 41.8 years (men), 40.5 years (women)
Undernutrition: What works?

- **Chronic undernutrition** decreased from 55% in 1995 to 44% in 2008.
- **Wasting** levels dropped from 8% to 4% during the same period.

Mozambique is one of the ten countries in the world with the highest average annual rates of absolute progress in reducing the proportion of the population below the minimum level of dietary energy consumption (percentage decreased from 59% to 38% from 1991 to 2004). However, shortages in micronutrients still have unacceptable consequences. In 2002, a national anaemia study revealed that 75% of children and 48% of women of fertile age were anaemic, and anaemia is one of the main causes of mortality during pregnancy. Vitamin A supplementation in children has improved considerably (88% in 2008 compared to 32% in 2005), and currently all pregnant women receive supplements of iron sulphate and folic acid, but no information is available to evaluate the potential positive impact.

On one hand, Mozambique has made substantial progress on two MDG key indicators underlying the basic causes of undernutrition: enrolment in primary education increased from 42% in 1991 to 76% in 2007 and the under-five mortality rate decreased (from 201 per 1,000 live births in 1997 to 130 in 2008). It should be pointed out that in the latter indicator, improvement in rural areas (7%) exceeded that in urban areas (1.5%). In addition, there was a 5% decrease in rates of malaria, respiratory diseases and diarrhoea.

On the other hand, HIV/AIDS further aggravates poverty and undernutrition levels for poor households. The prevalence of HIV in Mozambique (12.5% in 2007) may be relatively low in comparison with neighbouring South Africa, Swaziland and Zimbabwe, but it still has a significant impact on levels of undernutrition and on household economies. The virus affects the most productive members of households and drains already meagre resources to pay for medical and other care. However, while the number of adults living with HIV/AIDS in Mozambique increased from 10% to 12% in seven years (2001–2007), access to ART doubled, from 12% to 24%.

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89 ODI, 2010
90 ODI, 2010
91 Petty C, Selvester K, et al., 2004
2.2 National policies and initiatives

**Poverty Reduction Strategy Paper**

Since the 1990s, Mozambique has changed the direction of its public policy by making the reduction of absolute poverty rates a priority. Mozambique developed its interim Poverty Reduction Strategy Paper (PRSP) – the Action Plan for the Reduction of Absolute Poverty (PARPA) – in 1999 based on a national 1996–97 survey. A final PRSP was approved by the IMF and the WB in 2001 with six priority areas: education, health, agriculture and rural development, basic infrastructure, good governance, and macroeconomic and financial management. The PRSPs illustrate the mainstreaming of nutrition strategies and actions in Mozambique.

**National Action Plan for the Reduction of Absolute Poverty**

In May 2005, the government of Mozambique adopted a new Five Year Plan (2005–2009). The National Action Plan for the Reduction of Absolute Poverty 2006–2009 (PARPA II) was created to make the Five Year Plan objectives operational. PARPA II mapped out the country’s medium-term strategy to promote growth and reduce poverty (from 54% in 2003 to 45% in 2009) based on the three pillars of governance, human capital, and economic development.

**Food Security and Nutrition Strategy**

This initiative (ESAN) completed in 1998, is overseen by the Technical Secretariat for Food Security and Nutrition (SETSAN), a special unit – stronger at central level than at regional level – within the Ministry of Agriculture and Rural Development (MADER) expected to coordinate sector activities related to food security. ESAN is designed to improve food security by increasing agricultural productivity, road development, information systems, commercialisation, nutrition education and disease prevention and treatment. At present the country is endowed with policies, strategies and action plans that directly or indirectly support the implementation of Food Nutrition Security (FNS) programmes, a circumstance that has allowed for some improvement in levels of food security, especially for the populations in the most vulnerable areas in southern and central Mozambique.

**Strategic Plan for Nutritional Development**

As an example of a nutrition strategy including prevention, capacity building and advocacy interventions, the Strategic Plan for Nutritional Development of MOH developed in 2005 included 11 objectives of which six are a priority:

- reducing the prevalence of chronic undernutrition
- reducing the prevalence of iodine deficiency
- reducing the prevalence of vitamin A deficiency
- reducing the prevalence of anaemia
- capacity development in nutrition research
- capacity building in advocacy for nutrition.

**HIV policies**

These are also a key priority area since 2000 through the Strategic Plan to Fight against STD/HIV/SIDA (PEN I, 2000–02; PEN II 2004–2008). PEN II incorporated a more integrated approach including nutrition related to HIV. In 2000 the HIV/Aids National Council (CNCS) was created to coordinate a multi-sector action for prevention, care and treatment of HIV/Aids. The latest multi-sector plan for HIV/Aids (PNCS II) was set up in 2004.

**The National Policy and Strategy for Gender Equality**

This initiative (PENG) sets out guidelines to include gender analysis as an instrument of social inclusion and sustainable development based on a human rights approach.

**National Adaptation Programme of Action (NAPA)**

The management of risks and natural disasters is a priority on the political agenda in Mozambique where thousands of people are threatened by natural haz-
ards every year. Under the auspices of the United Nations Framework Convention on Climate Change the government of Mozambique, NGOs, and humanitarian agencies prepared a NAPA in 2007 on the following axes:

- strengthening of early-warning systems
- strengthening the capacities of agricultural producers to deal with climate change
- reduction of the impact of climate change in coastal zones
- management of water resources under the framework of climate change.

**National disaster management capacity**

Repeatedly hit by natural disasters that have been more severe and frequent than in any other African country, Mozambique has implemented effective national preparedness and response coordination. In 2007, flooding caused by heavy rainfall, compounded by a category four cyclone, affected 300,000–500,000 people and destroyed 277,000 hectares of crops. However, due to good preparedness, few lives were lost.

The creation of the National Disaster Management Institute in 2000 illustrates the strong commitment to preparedness at the national level. Many of the techniques and approaches adopted were inspired by the expertise of Latin American countries and included the creation of a National Emergency Operation Centre, the active participation of local communities and civil society networks, simulation exercises and pre-positioning of staff and relief supplies. International investment in national disaster management capacity and rapid availability of funds through the Central Emergency Response Fund (CERF) were also key.

**Agriculture sector**

Mozambique’s economy relies heavily on agriculture (28.7% of GDP), with subsistence agriculture employing the majority of the country’s workforce. Central and northern provinces have higher agricultural potential than other parts of the country, more fertile soils and more abundant rainfall, and generally produce agricultural surpluses. In southern parts of the country the climate is drier, soil is poor and natural disasters such as flooding and drought are periodic occurrences. These, together with the extremely isolated coastal communities, are some of the poorest areas in the country.

Low agricultural productivity is the result of a lack of appropriate technologies and support services. It can also be attributed to the fact that produce markets are distant, unreliable and uncompetitive. Smallholders depend on traditional farming methods, low-yield seed varieties and manual cultivation techniques.

**2.3 Role of the international community**

International development assistance plays a crucial role in Mozambique’s fight against poverty. Net official development assistance (ODA) averaged US$1.1 billion in the period 1997–2003, (around 31.4% of GNI in the same period). Around three-quarters of ODA was provided under bilateral programmes, while the remainder was provided by multilateral institutions (WB, EC and the UN). It is outstanding that most donors have followed the Paris Declaration principles (ownership, accountability, added value and harmonisation of policies).

Development partners have engaged in an ongoing and highly participatory dialogue on the fight against poverty in Mozambique. A group of donors, known as the G-19, currently provides direct budget support to ensure efficient and effective implementation of PARPA II. This Programme Aid Partnership (PAP) is the largest joint programme in Africa, both in terms of volume and the number of donors involved.
The UN system also drafted a participatory strategy with the state, development partners and other stakeholders in 2005 based on four priority areas: governance, human capital, HIV/AIDS and economic development (related to production activities). The WFP has a significant presence in a country with recurrent food insecurity, natural disasters and economic crises. WFP-run programmes emphasise partnerships and government-led coordination and ownership. The UN system has integrated the food security and child wellbeing components into the UNDAF for the 2007–2009 term, with special support for social safety nets; land management improvement; food production and management capacity building; reproductive and child health policy planning and capacity building; emergency response capacity to food and water access; plus monitoring and information dissemination of child wellbeing at local, regional and national levels.

The 9th European Development Fund (EDF) invested around €35 million into the food security sector and around €10 million into the health sector for 2001–2007. The EU recommends the integration of both sectors on the basis that improved health and access to basic services has a positive effect on household productivity, therefore increasing food security and helping to break the poverty cycle. Increased agricultural production is one of the main aims of the National Indicative Plan (80% of GDP from agriculture and 90% of that from small scale farmers), which adopts an approach of empowering small producers by transforming public services into facilitators and supporters and reinforcing their role in extension services. The Country Strategy Paper for 2008–2013 foresees a total envelope of €622 million from the 10th EDF, with around €95 million earmarked for food security and agriculture, and €56 million for the health sector (focused on reducing HIV/AIDS prevalence). Budget support is the key to reinforcing national capacities and improving governance through more deliverable policies and services in these basic sectors.

The biggest donors are DFID (€259 million), the Swedish International Development Cooperation Agency (SIDA) and the Norwegian Agency for Development Coordination (NORAD) (€286 million), Netherlands (€254 million), Canada (€138 million) and USAID (US$126 million). They all have complementary approaches supporting economic development and agricultural programmes, child survival and reproductive health and HIV/AIDS.

3 Conclusions

3.1 Best practices and lessons learned

Mozambique is a good example of synergy and harmonisation between national government policies and international community support:

Political commitment to the fight against hunger

The government of Mozambique has demonstrated a strong commitment to food and nutritional security by launching the food and nutrition strategy (ESAN), placing the right to food at the centre of its 2008–2015 mandate. This has been reinforced by the establishment of SETSAN, the public body set up to coordinate related initiatives. However, most significant is the draft bill on the Right to Adequate Food, due to be submitted for approval by the end of 2010. If passed, it will be one of the most innovative and progressive legislations in the world. In an attempt to continue efforts to reduce Mozambique’s rates of chronic undernutrition, and following a high-level national seminar in March 2010, the development of a new national action plan for reducing chronic undernutrition is ongoing.

Multi-sector approach

Mozambique is a good example of the multi-sector approach to food and nutrition security, involving a wide range of stakeholders such as the government,

95 WFP supports the government of Mozambique by providing food assistance to around 698,000 people through a range of activities from disaster relief and recovery to farmers’ production reinforcement, livelihood protection and social assistance through schools.

96 The nutrition component of the UNDAF reflects the collective priority which is given to nutrition by the UN Agencies in a country. It can serve as an indication of how much the UN system is committed to helping governments improve their food and nutrition situation.

97 IFAD, 2010

98 WHO, 2009
NGOs and several civil society institutions mainly launching complementary initiatives. The most relevant ones are listed below:

**NATIONAL PLAN TO INCREASE AGRICULTURAL PRODUCTION 2008–2011** In response to rapidly rising prices during the food crisis, the government introduced a plan to increase agricultural production between 2008 and 2011 and reduce Mozambique’s future vulnerability – 10% of the budget was committed to agriculture, in line with the Comprehensive Africa Agriculture Development Programme (CAADP) target.

**CROSS-BORDER FOOD TRADE MONITORING SYSTEM** Mozambique is also one of the four south-eastern countries in Africa (with Malawi, Zambia and Zimbabwe) where the WFP has implemented the Cross-Border Food Trade Monitoring System. The system monitors previously unrecorded informal trade flows across borders and incorporates the resulting data into national food balance sheets to improve the allocation of food aid and the management of national food stocks. It also informs trade policy and procurement decisions, contributes to the design and targeting of agri-business development programmes and, by tracking agricultural imports, serves as an early-warning indicator for crop-production decisions in coming seasons.

**Coordination and coherence of national policies**

The importance given to coordination of different food and nutritional security institutions and initiatives is addressed through the National Nutrition Coordination Council (NNCC). The organisation, similar to those in other African countries (Namibia, Nigeria and Uganda), was set up to facilitate inter-ministry collaboration on national nutrition policies and programmes. The NNCC has two main added values:

- To create an institutional framework or ‘home for nutrition’ at national level. Although these ‘homes’ might have little power to influence programmatic action, they legitimise nutrition as a national development priority and create a window of opportunity for nutrition advocates to enter into national level policy debates.

- To lend permanency to long-term efforts to address undernutrition in contexts where nutrition advocates are usually able to coordinate efforts only via loose networks, informal coalitions and where the turnover in personnel and administration threatens the continuity of the progress.

**3.2 Challenges ahead**

The poor allocation of human and financial resources for the implementation and coordination of food and nutrition security programmes is the most relevant challenge ahead:

- Costs for nutrition programmes are borne primarily by external funders, and since much of the NNCC’s ability to incentivise ministerial action against undernutrition is predicated on its capacity to mobilise and allocate resources, its power will be undermined by lack of funding.

- To date, the NNCC has been relatively ineffective in mobilising resources and collaboration across ministries and sectors. In addition to the challenge of reconciling specific ministries’ mandates with nutrition initiatives, it is hamstrung fiscally.

Other challenges relate to the need for agricultural development, broad-based growth and pro-poor policies. Despite policy improvements, recent shocks and price hikes are reminders of the country’s vulnerability to external factors, and underscore Mozambique’s chronic dependence on food imports.

It is also worth mentioning the challenges related to funding, as some donors, such as USAID and SDC, are reducing their budgets. Consequently, close monitoring to ensure coordinated and dialogued replacement of donors and triangular cooperation strategies should be set in place.
CASE STUDY 5

Bangladesh

1 General context

Despite frequent natural disasters, Bangladesh has made impressive economic and social progress over the past decade. Broad-based private-sector-led growth and macroeconomic stability has contributed to significant decline in both rural and urban poverty (from 67% of the population in 1990 to 50% in 2008). Bangladesh showed remarkable resilience to the global financial crisis, buoyed in part by remittances and garment exports (average GDP growth over the last six years was over 6%). Bangladesh is on track to meet the MDG of halving extreme poverty by 2015, although underweight statistics remain excessively high and around 56 million people still live below the poverty line.

Price rises and protection measures in neighbouring countries (among other factors) produced a highly vulnerable situation that led to food insecurity in 2007. Dramatic price increases meant that many Bangladeshi households lost their purchasing power. In 2008 the real monthly income per household decreased by 12% (compared to 2005). Real wages remained stable, while the terms of trade (daily wage/daily price) further decreased in 2008. Expenditure (particularly on food) increased to an unprecedented 62% of the household total. The crisis provoked an international response to stabilise food markets, restore national food stocks and reinforce access to credit for vulnerable populations in order to maintain their income-generating activities.

In addition, Bangladesh is one of countries most vulnerable to climate change and natural disasters (cyclones and floods). Urbanisation is occurring at an alarming rate, and almost 30% of the population now lives in urban areas.

102 ODI, 2010
103 WFP, UNICEF and IPHN, 2009
104 IFPRI, 2010 Global Hunger Index

| Name: People’s Republic of Bangladesh |
| Population: 146.7 million (2008) |
| Capital: Dhaka |
| Area: 144,000 sq km |
| GDP per Capita (PPP, 2009): US$612.3 |
| GINI Index (2005): 94 |

Population below poverty line (2009): 36.6%
Main exports: Garments, frozen fish and seafood, jute and jute goods, leather
Language: Bengali (official)
Religion: Muslim (89.9%), Hindu (9.8%)
Life expectancy: 57.6 years (men), 63 years (women)

Source: WB development indicators
2  The fight against undernutrition: Measures and outputs

2.1 The state of undernutrition in Bangladesh
(See Bangladesh fact sheet, Annex 1)

Data available from the past 15 years shows a steady and remarkable decline in undernutrition. Bangladesh is third on a list of countries with the highest average annual rates of absolute progress in the reduction of underweight rates in under-fives (from 56% in 1996 to 43% in 2009). Although national trends conceal regional and socio-economic differences, rural and urban disparities in child undernutrition (or the urban-rural ratio) decreased from 1.38 in 1997 to 1.21 in 2007. However, even if Bangladesh achieves MDG1, underweight rates will still remain above the WHO threshold for ‘very high prevalence’.

Stunting rates have also declined significantly, from 55% in 1996 to 40.9% in 2009, although due to its large population, the country is home to almost 4% of the world’s stunted children (UNICEF 2009). Wasting rates have also shown some reduction (18% to 13.1% from 1996 to 2009), but they remain very high (2.1 million of children aged 6–59 months suffer from wasting).

Between 1991 and 2004, before the food price crisis, the proportion of population below the minimum level of dietary energy consumption fell from 36% to 27%. However, between 2007 and 2008, rapid price rises for rice and other foods had a negative impact on the quality and quantity of diet of poor households. Access to health has improved considerably over the last 15 years. Vitamin A supplementation surpassed the recommended minimum of 80% in both 2006 (84%) and 2007 (86%), compared to 44% in 1995.

Antenatal care coverage almost doubled from 1990 to 2007 (26% to 51%). Another impressive success is the proportion of households with iodized salt, which rose from 44% in 1995 to 84% in 2006. On the other hand, anaemia remains a nutrition challenge with high rates in women (46%) and children (68%). Infant and maternal mortality has improved significantly over the last decade. Bangladesh is the fifth country with the

105 ODI, 2010
106 ODI, 2010
107 WFP, UNICEF and IPHn, 2009
108 ODI, 2010
109 Sulaiman M, Parveen M, Das NC, 2009
110 ODI 2010
highest average annual rates of absolute progress of reduction in under-five mortality (down from 106 per 1,000 live births in 1996 to 61 in 2007).

Latest findings\textsuperscript{111} on improved drinking water sources in Bangladesh suggest clear progress. In 2009, 94.8% of households had access to an improved drinking water source, compared to 78% in 1990. However, despite positive progress at national level (51.4% of households had good sanitation practices in 2009, compared to 39% in 1990), poor sanitation practices remain a concern.

Bangladesh has made commendable progress in social and human development. It has met the MDG for gender parity in education and universal primary school enrolment. Net primary school enrolment increased from 69% in 1993 to 83% in 2003. And in today’s Bangladesh, nearly 80% of teenage girls have completed primary education (compared to only 20% of women in their fifties).

\subsection*{2.2 National policies and initiatives}

\textbf{Poverty Reduction Strategy Paper}

Nutrition security is set out in the Poverty Reduction Strategy Paper (Unlocking the Potential: National Strategy for Accelerated Poverty Reduction).\textsuperscript{112} Poverty Reduction Strategy Papers (PRSPs) describe how a country’s macroeconomic, structural and social policies and programmes will promote growth and reduce poverty, as well as discussing the relevant external financing needs. PRSPs are prepared by governments through a participatory process involving civil society and development partners.

The major axes of the Bangladesh PRSP include:

- Supportive macroeconomics to ensure rapid growth with particular focus on stable macroeconomic balances; improved regulatory environment; higher private investment and increased inflow of FDIs; effective trade and competition policies; and a gender- and poor-sensitive budgetary process.

- Choice of critical sectors to maximise pro-poor benefits from the growth process with special emphasis on the rural, agricultural, informal and SME sectors; and improved connectivity through rural electrification, roads, and telecommunications.

- Safety-net measures to protect the poor, especially women, against anticipated and unanticipated income/consumption shocks through targeted and other efforts.

- Human development of the poor through education, health, sanitation and safe water, nutrition and social interventions.

- Participation and empowerment of the poor, especially women, and other disadvantaged and marginalised groups such as the disabled, ethnic minorities and the ecologically vulnerable.

- Promotion of good governance through improving implementation capacity; promotion of local governance; anti-corruption measures; enhancing access to justice for the poor; and improving sector governance.

- Improvement of service delivery in areas of basic need.

- Care for the environment and sustainability.

\textbf{National Food Policy}

The National Food Policy (NFP), 2006\textsuperscript{113} follows the NFP of 1988, and aims to ensure food security for all by increasing food production and attaining self-sufficiency. The National Food and Nutrition Policy formulated in 1997 by the Ministry of Health and Family Welfare (MoHFW) was a first attempt to include food diversification, health and nutrition as key priorities in the national food-security system.

\textsuperscript{111} WFP, UNICEF and IPHN, 2009

\textsuperscript{112} GED, Planning Commission, Government of Bangladesh, 2005

The 2006 NFP was formulated by the Ministry of Food and Disaster Management (MoFDM) in coordination with partner ministries, development partners and NGOs. It is an unprecedented attempt to consolidate and harmonise existing policy frameworks and actions for addressing food security challenges in all their dimensions, while also addressing emerging issues. A National Food Policy Action Plan (2008–2015) was launched to implement and monitor it. The NFP framework is articulated around three core objectives:

**Adequate and Stable Supply of Safe and Nutritious Food** Agriculture research and extension, management of water resources, agricultural inputs, agricultural diversification, agricultural credit and insurance, agricultural marketing and trade and producer price support.

**Increased Purchasing Power and Access to Food** Income-generating initiatives for women and the disabled, agricultural disaster management, emergency distribution of public food stocks, safety nets and targeted food security programmes, etc.

**Adequate Nutrition for All Individuals, Especially Women and Children** Long-term national plan for ensuring balanced food in building a healthy nation; supply of sufficient nutritious food for vulnerable groups; balanced diet containing adequate micronutrients; safe drinking water and improved sanitation; safe quality food supply; women and children’s health.

**Nutrition Programmes and Strategies**

Nutrition issues are addressed in the MoHFW’s Health, Nutrition and Population Sector Programme (HNPS), and also by complementary actions from the Ministry of Agriculture and the Ministry of Fisheries and Livestock, among others. Key interventions that are currently being implemented under the HNPS include the following:

**Growth Monitoring and Promotion (GMP)** The National Nutrition Programme (NNP) provides GMP in its operational areas for children and pregnant women. Children who are undernourished or faltering in their growth and undernourished pregnant women are targeted for supplementary feeding programme (SFP). However, SFP has low coverage.

**Infant and Young Child Feeding (IYCF)** A National Strategy for IYCF has been developed by the Institute of Public Health Nutrition (IPHN). It identifies comprehensive actions that will be taken to improve legislation, policies and standards to protect optimum IYCF practices and strengthen the capacity of health services and communities to promote and support the nutritional needs of infants and young children.

**Prevention and Control of Anaemia** The National Strategy for the Prevention and Control of Anaemia in Bangladesh recognises the key strategies needed to address all major causes of anaemia, including targeted strategies for high-risk groups.

**Prevention and Control of Vitamin A Deficiency** Vitamin A supplements are given to infants aged nine months with their measles vaccination through the Expanded Programme on Immunisation; to children aged 12–59 months every six months through the National Vitamin A+ Campaign; and to mothers within six weeks of delivery.

**Prevention and Control of Iodine Deficiency** The soil in Bangladesh naturally lacks iodine and so it is added to edible salt during processing to prevent iodine deficiency disorders. All edible salt is iodised by law.

**Social Safety Nets**

Social safety nets were designed mainly to address temporary food insecurity stemming from shocks and setbacks. In 2009/2010 they accounted for 12.58% of the national budget. The Public Food Distribution System (PFDS) is the government’s main mechanism for addressing shortfalls in household access to food. Primarily, assistance is in the form of food
or cash-based transfers and is targeted at poor and vulnerable groups. Some programmes are explicitly short-term, such as disaster-relief assistance, while others have longer-term, multiple-year cycles such as those that focus on the alleviation of chronic poverty. The largest social safety net programmes typically operate in rural areas and are generally food-based.

An assessment carried out in 2009\(^{116}\) showed that 74% of underweight children came from households receiving Food-for-Work (FFW) assistance, 50% from those receiving Development assistance and 41% receiving Vulnerable Group Feeding assistance. (These findings could be affected by the fact that middle income or better-off households were less likely to participate).

One of the main mechanisms used by the government in response to food price rises in 2007/2008 was the establishment (mainly in urban areas) of Open Market Sales of low-price, subsidised rice and other basic staples. According to the NFP\(^{101}\) (2006), subsidised food should be sold at below-market prices during times of unusually high prices. Other government social protection programmes were also scaled up in response to the crisis: Vulnerable Group Feeding, which assisted 2.2% of households in 2007, rose to 5.1% of households in 2008; Vulnerable Group Development went from 2.9% to 4.5% respectively; Test Relief\(^{117}\) from 1.4% to 4%; and the Primary Education Stipend Programme from 5.8% to 8%\(^{118}\).

In addition to food assistance, one of the main government-response mechanisms was the creation of the 100 Day Employment Programme to guarantee 100 days of paid labour to poor, unemployed, and food-insecure workers on mainly rural infrastructure projects. However, this programme reached less than 2% of households (compared to the 7% target)\(^{119}\).

### National Adaptation Programme of Action (NAPA)

In its national climate change Adaptation Programme for Action (2005), Bangladesh included the development of eco-specific knowledge on climate variability to enhance future adaptability to climate change\(^{120}\) as one of its top ten proposals. A specific example is presented by traditional ‘floating gardens’\(^{121}\) which, by extending the growing season and enabling crop cultivation in flooded or waterlogged areas, provide a critical expansion of food production capacity for poor farmers and even landless households.

### Food for Education Programme (FFE)

Launched in 1993, the innovative FFE programme transfers food\(^{122}\) resources to low-income families upon enrolment of their children in primary school. In 2002, IFPRI evaluated\(^{123}\) the performance of the FFE programme to determine the extent to which these goals were met. Despite the quality of education – measured on the basis of pupil/teacher ratio (80 pupils per teacher) – remaining a problem, the evaluation suggested that the FFE programme is successful:

- Enrolment increased 35% per primary school over a two-year period.
- School attendance is up (70% in FFE schools compared to 58% in non-FFE schools).
- Reduced dropout rates (6% of the FFE pupils dropped out compared to 15% of non-FFE pupils).
- Increase in enrolment greater for girls (44%) than for boys (28%).

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115 According to HFSNA, although the Public Food Distribution System has many channels through which food assistance is provided the majority of the assistance is provided through Vulnerable Group Development, Vulnerable Group Feeding, Gratuitous Relief, Test Relief, Food-for-work, and Open Market Sales.

116 WFP, UNICEF and IPHN, 2009

117 Employment generation after disasters

118 WFP, UNICEF and IPHN, 2009

119 WFP, UNICEF and IPHN, 2009

120 SCN, 2010

121 The cultivation of floating gardens is a traditional hydroponic technique applied by Bangladeshi farmers primarily in the southern wetlands of the country. Aquatic plants (e.g. water hyacinth) are used to construct floating platforms during the rainy season, on which cultivation of seedlings, vegetables and other crops is possible.

122 The family can consume the grain, thus reducing its food budget, or it can sell the grain and use the cash to meet other expenses.

123 Akhter AU and del Ninno C, 2002
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National Plan for Disaster Management 2010–2015

Natural and human-induced hazards such as floods, cyclones, droughts, tidal surges, tornadoes, earthquakes, river erosion, fire, infrastructure collapse, high arsenic contents of ground water, water logging, water and soil salinity, epidemics, and various forms of pollution are frequent occurrences. The National Plan for Disaster Management 2010–2015 is the result of national and international commitments from the government of Bangladesh and its Disaster Management and Relief Division to address the risks comprehensively.

Bangladesh has taken a holistic approach towards disaster management. Emphasis is placed on stakeholder cooperation to build strategic, scientific and implementation partnerships with all relevant government departments and agencies, other key non-government players including NGOs, academic and technical institutions, the private sector and donors. The government is keen to ensure that risk reduction and comprehensive disaster management is a focus of national policy and programmes.

Agriculture sector

Bangladesh has improved food production over the last 15 years thanks to social assistance programmes such as basic food distribution to households, credit access for small-scale farmers, nationwide implementation of extension services, and the facilitation of access to inputs such as seeds and fertiliser. Estimates of rural poverty rates now stand between 43.6% and 53%, and, in general, the depth and severity of poverty has been reduced more successfully in rural zones than in urban areas, although rural zones remain behind urban areas in terms of development. Small-scale farming livelihoods are precarious, due to the seasonal nature of farm income and because natural disasters such as floods and drought may periodically destroy crops and livestock. Fishing communities are also among the poorest and most disadvantaged groups in the country. The National Agriculture Policy (NAP) emphasises that the goal of food self-sufficiency and dependable food security can be achieved mainly through efficient delivery of inputs and support services, such as ensuring timely and adequate supplies of quality seeds and fertiliser.

This approach has been realised in the New Agricultural Extension Policy (1995–2010). The policy is an effort to increase agricultural efficiency and productivity by encouraging the provision of a range of complementary and effective services that will make inputs (quality seed), technical assistance (on how to produce nutritional crops), and other necessary services (use of land, management of fertility and environment, increase of trade and exports) available and accessible to all categories of farmers (especially small-scale). Particular importance has been given to quality seed access through several public and private initiatives such as the Seed Certification Agency (SCA), the National Agricultural Research System (NARS).

2.3 Role of the international community

In general terms, donors have contributed regularly and generously to pledges made by both the UN system and the government of Bangladesh, engaging in institutional and policy support. UN agencies have built a strong nutrition component into the UNDAF in Bangladesh for the 2006–2010 term with US$249.2 million (out of which US$29.4 million was earmarked for health, nutrition and sustainable population growth). Other related areas receiving UNDAF attention are education and pro-poor growth (US$101.3 million) and social protection and disaster risk reduction (US$31.7 million). The World Bank committed 11% of its aid (a total ongoing portfolio of US$3.6 billion) to the Support Health and Population Sectors Programme (HPSP).

Bilateral donors have also prioritised health and nutrition. USAID, with an overall budget of US$315 million
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for a five-year term (2006–10), has addressed both health and nutrition through its national strategies: Maternal Health and Nutrition (which provides access to maternal health services, pre-natal care, skilled birth attendants and the establishment of referral linkages), and Child Survival, Health and Nutrition (food insecurity and disaster mitigation, preparedness and relief; community-based nutrition education, counselling and rehabilitation of undernourished children). Other relevant donors who have joined together in supporting the HPSP are: Australia, Canada, Britain (the largest bilateral donor in Bangladesh, contributing £495 million over the last four years), the EC and Sweden. Netherlands, Denmark and Japan have contributed regularly to basic health services support.

Several donors are combining efforts to improve food production, prevent food losses due to disasters and provide food assistance: Canada (flood forecasting); UK, EU and USAID (seed-research support programmes); EU (grain management); the International Fund for Agricultural Development (IFAD) (diversification of food production); and Switzerland (sustainable land use, production and marketing of vegetables). Improved disaster management is also a priority for the donor community, bridging the gap between development and disaster relief through preparedness and mitigation activities accompanied by food aid, food-for-work opportunities and other income-generating activities.

Both foreign direct investment (FDI) as well as private domestic investment have been spurred by a relatively conducive business investment climate following liberalisation policies initiated in the early 1990s, and a prudent monetary policy resulting in the reduction of inflation in recent years.

3 Conclusions: Best practices and lessons learned

Over the last two decades, Bangladesh has achieved steady economic growth coupled with impressive strides in poverty reduction. Undernutrition rates, though still high, have been significantly reduced. Key factors underpinning progress include:

Political profile of the fight against hunger

Bangladesh has robust nutrition governance evident in the emphasis on nutrition security in the PRSP.

Policy coherence and coordination

Most of the problems in policy formulation and implementation arise because ministerial domains are not clearly demarcated, and even where they are defined limits are sometimes knowingly or unknowingly ignored. For example, the National Land Use Policy prepared by the Ministry of Land (which often interferes with land-use issues concerning crop production, fishing and forestry) involves three separate ministries.128

Multi-sector approaches

■ INNOVATIVE APPROACHES LINKING CLIMATE CHANGE ADAPTATION TO NUTRITION AND FOOD-SECURITY PROGRAMMES AND POLICIES Bangladesh is a good example of innovative approaches to the potential impact of climate change on nutrition (‘Floating Gardens’ could help to increase the quantity and quality of foods available to households throughout the year).

■ EXPANSION OF THE AGRICULTURE SECTOR AND RURAL INFRASTRUCTURE Government rice procurement and agricultural input subsidy programmes.

■ EXPANSION OF NON-FARM EMPLOYMENT OPPORTUNITIES (GENDER-FOCUSED) Increase in alternatives to agricultural jobs, such as in the ready-made-garment (RMG) industry which employs about 2.6 million people, mostly women.

128 Agriculture Sector Review. Ministry of Agriculture of Bangladesh - FAO. 2006
129 FAO/WFP, 2008
THE DEVELOPMENT OF MICRO-CREDIT SPECIALLY FOR WOMEN (GENDER-FOCUSED) The Grameen Bank, which is essentially owned by the poor, has a network of services covering 76,000 villages across the country, 96% of its seven million borrowers are women.130

SOCIAL SAFETY NETS AND OTHER SPECIFIC POVERTY REDUCTION PROGRAMMES These include the Vulnerable Group Development (VGD), which focuses on improving the nutritional status of the poorest rural women and their children. These government-sponsored programmes are backed by donors and UN agencies such as WFP and UNICEF which, along with NGOs, play a major role in implementation.

Civil society involvement

National and international NGOs, community-based organisations, UN agencies, research organisations, donors and many others are actively trying to improve nutrition in Bangladesh through policy debate and as service providers of social safety nets. A key example of success is the Targeting the Ultra Poor (TUP) Programme, set up by the Bangladesh Rural Advancement Committee (BRAC) and WFP to improve access to micro-finance services for the extreme poor. TUP is a two-year special-investment programme involving asset transfers, intensive social awareness and enterprise training, and health services to help alleviate extreme poverty. At the conclusion of the programme, successful participants graduate onto BRAC’s micro-finance groups and self-employment initiatives.

Challenges ahead

Major challenges identified in the Bangladesh experience include:

Lack of coordination among nutrition actors

Nutrition programming is hampered by insufficient coordination of actors’ involved, limited institutional capacity, and in most of the country, inadequate linkages between the government’s health structures and communities. There is presently no national body with full responsibility and authority for coordinating nutrition activities, and there is no overarching framework for the many different activities that are underway. Government support and monitoring of organisations involved in nutrition is largely non-existent.

Nutrition services for acutely undernourished children

Although the government of Bangladesh is committed to reducing undernutrition among children and women, the delivery of nutrition services remains weak and activities are mainly focused on prevention rather than treatment. Other than the National Nutrition Project that covers about 20%131 of the population, neither local health services nor communities provide services for acutely undernourished children. The government healthcare system provides basic medical treatment for undernourished children, but no other nutrition services with the exception of vitamin A supplementation. The recently developed (2009) national guidelines for the management of severe acute undernutrition have yet to become operational, although the Ministry of Health and Family Welfare (through the Institute of Public Health Nutrition) with UNICEF support, are developing plans for training health facility staff in their use.

Beneficiary targeting of social safety nets and employment generation programmes

Effective and efficient targeting of social safety nets to the poorest and most deserving households is an ongoing concern for numerous stakeholders. Many studies have reported substantial inclusion and exclusion errors associated with various safety net programmes. A 2006 World Bank report estimated that 27% of Vulnerable Group Development beneficiaries and 47% of Primary Education Stipend Programme...
beneficiaries were not poor. In addition, a recent 2009 evaluation of the 100-Day Employment Programme found that 40% of the beneficiaries were from middle income or better-off families.

**Weak food security monitoring capacity and regional trade balance**

- The National Food Policy Plan of Action plan to review public stock management is positive, but private sector stocks need to be included in the review, due to their major relevance to overall national food availability.

- While the Food Planning and Monitoring Unit of the Ministry of Food and Disaster Management regularly monitors traditional macro-economic food security indicators, there is little evidence that broader macro-economic trends and indicators with a significant impact on food security (such as remittances and export earnings) are incorporated into monitoring or analysis.

- Market information systems and food security monitoring systems should go beyond simple reporting of food prices. Changes in consumer buying patterns that reflect evolving food security conditions should also be reported.

- Strong regional trade imbalances and speculative trading of staple foods during periods of food scarcity should be closely monitored through regional trade management.

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132 World Bank, 2006
133 NFPCSP and BRAC, 2009
4. Conclusions and recommendations

The selected five case studies analysed in this paper are an example of how, through a combination of effective policies and investment, some countries have proved that the reduction of hunger and undernutrition is achievable.

In countries like Mozambique and Malawi international aid has been key to success in reducing poverty and hunger rates, while in Brazil and Peru the major keys to success are economic dynamism and public spending capacity. Additionally, Brazil has made the fight against hunger a state policy, combining social-protection programmes with support for family-based agriculture. In Malawi, appropriate economic policies have facilitated access to subsidised seed and fertiliser for small producers, with the benefit that the country is no longer dependent on food aid.

Moreover, practical and inexpensive nutrition interventions that have proven effective in different contexts are available and published.\(^{134}\) The question to reflect upon is why these interventions are not systematically implemented. The answer is political and economic: governments with the political will and a signed commitment to reduce undernutrition have positioned nutrition top of political agendas with positive results. Despite their different contexts, players, political and socio-economic dynamics, all of our case studies demonstrate the success of this approach.

4.1 General recommendations

Drawing on best practices and lessons learned from all five examples, key recommendations for success include:

ADDRESS UNDERNUTRITION THROUGH A MULTI-SECTOR APPROACH The multiple causes of undernutrition require coherence and coordination through a cross-
sectoral approach. The most relevant axes are agriculture, health (mainstreaming nutrition within public health policies), education, gender, water, sanitation and habitat, pro-poor economic development (employment and income generation for the poor) and social development (Brazil and Peru especially, and also Malawi and Bangladesh). Where regional food trade has a significant impact on food prices and accessibility, trade policies and monitoring have been mainstreamed (Malawi). Overall, nutrition has been scaled up as a cross-sector initiative. What is clear is that economic growth alone is not enough to reduce undernutrition, and income security does not lead to nutritional security; what is needed is a balance between income growth and increased investment in proven direct interventions.135

**GIVE POLITICAL PROFILE** to the objective of fighting against hunger and undernutrition. The political impetus provided by our studied governments is a key factor. All our case studies have included food and nutritional security as their main political priorities, recognising hunger and undernutrition as major challenges. As a result, public initiatives (policies and strategies) have been developed to specifically address hunger and poverty (Brazil, Peru, Malawi, and Mozambique). A difference between some of the countries studied is the sustainable coherence of these initiatives, varying from ad hoc personalised presidential initiatives (Malawi), to consolidated state policies (Peru), to strong civil society and presidential initiatives (Brazil).

**CIVIL SOCIETY OWNERSHIP AND PARTICIPATION** significantly contributes to the development of viable and sustainable policies and improves their acceptance and impact among affected populations. Some governments have opened spaces for discussion and participation after decades of pressure demanding transparency and accountability (Brazil and Peru); others show how international community engagement has facilitated civil society participation (Malawi). All five cases reveal the significant engagement of vulnerable communities in terms of mobilisation and information sharing; some by promoting the engagement of a broad set of stakeholders (Brazil and Peru), and others by sharing responsibility in the drafting, managing, implementing and even financing of agricultural, social and health programmes (Brazil).

**ADOPTING A MULTI-PHASE APPROACH** The combination of both short and long-term approaches to nutrition has proved effective. Long-term initiatives, such as the enhancement of food production for self-reliance and the reinforcement of access to employment for the most vulnerable, have been complementary to short-term approaches, such as the improvement of health services to mothers and children, improvement of access to safe water and better sanitation conditions, alongside social protection strategies such as cash conditional transfer (CCT) programmes. Indeed, a recent review of these rather fashionable CCT programmes 136 emphasises the need for a multi-phase approach by concluding that CCT will not reduce undernutrition in isolation, but should be integrated into a more holistic, integrated approach together with education services and productive or economic development initiatives.

**INSTITUTIONALISED COORDINATION** Long-term, sustained and scaled-up action to reduce undernutrition is more likely to succeed with an institutionalised coordination council in place. These bodies need strong political back-up to be able to mainstream nutrition and food security in other ministries and institutions, and enough financial resources to be effective (Mozambique and Peru). In addition, a strong monitoring and evaluation culture is vital to track the impact of policy actions and to incentivise and improve their implementation (Brazil).

**CONTINUITY OF RELEVANT FINANCIAL INVESTMENT** from host governments (Brazil, Peru) and the international donor community, especially in cases where budget support is compulsory for policy effectiveness (Bangladesh, Malawi, Mozambique). Financial commitment has helped to enhance policy coherence, coordina-
4.2 Specific recommendations for the ACF International Network

As one of the most relevant stakeholders in the worldwide nutrition and food security sector, ACF International (ACFIN) has the operational capacity, professionalism and technical expertise to play a significant role in attaining food and nutritional security for the most vulnerable globally. Following the food price crisis of 2008 and the ongoing financial crisis, the international debate on food and nutritional security is especially relevant. Affected countries, multilateral organisations and the public are all ready to listen. In this context, ACFIN's strategic decision to scale up the scope of interventions and to engage in policy debate, both globally and at national level, is highly appropriate.

In order to enlarge the scope of interventions and taking into consideration ACFIN’s profile, the recommendations given below are structured across different levels. We also highlight some recommendations that may be already in place (in pilot or study phase) in order to both confirm and encourage steps undertaken as key milestones in the new ACF strategic approach.

Policy level

ACFIN could complete its profile as a global reference player in nutrition by boosting its policy advocacy strategy jointly with its operational and implementation strategy. Advocacy efforts should be concentrated in both affected countries and donor countries. ACFIN should target concrete, reachable and measurable objectives, in areas identified below:

- Upgrade the political profile of the right to food in a given country (i.e. legislation or declaration acknowledging the ‘Right to Food’). Some progress on this is already underway in Paraguay.

- Encourage institutional moves towards coherence and coordination and/or management of nutritional and food security policies and related programmes (i.e. support the strengthening of an inter-ministral body, and a nutritional coordination body with its own budget).

- Promote a policy and/or strategic framework to tackle food and nutritional insecurity in countries where there are gaps, such as in Bangladesh (i.e. nutritional protocols, national food and/or nutrition policies, inclusion of acute undernutrition treatment in basic health services, mainstreaming nutrition in other sectors’ policies).

Selected objectives should be framed under a strategy (country or thematic) and strongly supported by the organisation’s determination to engage in policy changes. It should be noted that political changes demand time (no less than three to five years), resources and expertise (thematic). The advocacy process requires management, planning and monitoring. The process of policy influence should be clearly defined and adhered to across the following five stages:

- mapping the political context

- identification of key stakeholders and their capacities

- identification of desired changes

- analysis of internal capacities to affect change

- establishment of monitoring and learning systems.

Operational level

The current review is largely based on public policies, and government and donor community initiatives that have contributed to a reduction of undernutrition. Although some of the key recommendations identified at operational level may not always be feasible for an INGO such as ACFIN, the following applicable lines of intervention are recommended:

ACCESS TO RELIABLE AND UPDATED NUTRITIONAL AND FOOD SECURITY INFORMATION will help to detect those affected and/or at risk of food insecurity and/or undernutrition. The network experience in nutritional surveillance systems should be promoted and reinforced, and in contexts where national surveillance systems...
are not in place, regular nutritional and food security national surveys should be implemented, particularly in contexts where weaknesses or gaps have been identified (Bangladesh and Malawi).

REINFORCE MULTI-APPROACH NUTRITIONAL INTERVENTIONS, targeting local capacity for the treatment of acute undernutrition and the prevention of chronic undernutrition, ensuring both are integrated into or based on local structures (i.e. the Ministry of Health and Social Welfare). Programmes should also reinforce mainstreaming and multi-sector approaches addressing nutrition and food security, public health and water-sanitation interventions, with a cross-cutting approach to education, gender, trade and the rural economy (food prices have a significant impact on nutritional status in rural areas). A single-sector intervention (such as a CCT programme) will not be nearly as effective in tackling undernutrition as an integrated approach (whether undertaken directly by ACFIN or by other stakeholders). The development of models to assess impact and measure success is therefore highly recommended.

Institutional level

REINFORCE PARTNERSHIPS AND INSTITUTIONAL NETWORKS In order to promote policy changes and reinforce operational capacities, ACFIN should reinforce partnerships and institutional networks with key stakeholders, building a wide range of partnerships with donor, multilateral agencies and affected countries’ governments in order to exert influence on policy, strategy and programme information and advice. ACFIN should also reinforce strategic partnerships with local institutions in order to gain legitimacy and political reach, as well as operational efficiency, effectiveness and coverage. At research level, ACFIN should encourage partnerships with local institutions in order to exchange, capitalise and integrate successful experiences into programme strategies and policy advocacy.

INGO NATIONALISATION can bring stability and access to the political dialogue (Care Malawi), and is a process worth consideration in countries where, although ACFIN would like to maintain a presence and surveillance capacity, there is limited financial or operational support to justify an expatriated structure.

THE BALANCE BETWEEN PUBLIC AND PRIVATE FUNDS is particularly relevant at institutional level. Access to public funding (international donors and multilateral agencies) gives ACFIN the necessary institutional relevance to access local stakeholders. Private funding should be secured to guarantee long-term impact and resources. Finally, political analysts should be detached of any programme implementation responsibilities.
Annexes

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1  Brazil  56
2  Peru  59
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5  Bangladesh  68

Annex 2  Bibliography  71
Annex 1: Country fact sheets

1. Brazil fact sheet

Table 1  Brazil nutrition, mortality, health coverage, morbidity, environment, education and poverty indicators 1995–2009

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Underweight rates</td>
<td>13%</td>
<td>6%</td>
<td>1.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute malnutrition rates</td>
<td>2%</td>
<td>2%</td>
<td>1.98%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive breastfeeding up to 6 months</td>
<td>NA</td>
<td>NA</td>
<td>39.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of the population below the minimum level of dietary energy consumption</td>
<td></td>
<td>1991</td>
<td>2004</td>
<td>MDG Report Card. ODI 2010</td>
<td></td>
</tr>
</tbody>
</table>

| MORTALITY | | | | |
| Women | Maternal mortality ratio | 98 | 79 | 64 | 58 | WHO, UNICEF, UNFPA, World Bank |

| HEALTH COVERAGE | | | | |
| Immunisation | Measles: fully immunised 1 yr olds | 74% | 99% | SOWC 1996–2010 |
| Micronutrients | Vitamin A supplementation | 1995 | 2008 | Source |
| Women | Antenatal care coverage at least once | 86% | 98% | SOWC 1996–2010 |
| Deliveries assisted by qualified health staff | 83% | 99% | MDG Brazil 2010 |
| Iodine in households | 1996 | 2006 | Source |
| Households consuming adequate iodized salt | 95% | 96% | UNICEF Country profiles 2009 |

137 Anthropometrical data is expressed in NCHS/WHO references to allow comparisons from 1995. However, data from 2006 was only available with the WHO standards references 2006 (NCHS not available)
138 Probability of dying by age 5 per 1,000 live births
139 Deaths per 100,000 live births
141 Percentage of children 6–59 months old receiving two doses of vitamin A supplementation during calendar year
### Morbidity

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2006</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia: children 6–59 months (Hb&lt;110 g/L)</td>
<td>54.9%&lt;sup&gt;142&lt;/sup&gt; (IC 95%: 53.2–56.6)</td>
<td>OMS UNICEF Country profiles 2009</td>
</tr>
<tr>
<td>Anaemia: non pregnant women 15–49 yrs</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>HIV&lt;sup&gt;143&lt;/sup&gt;</td>
<td>0.6%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

### Environment

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Area</th>
<th>1995</th>
<th>2000</th>
<th>2008</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to improved drinking water</td>
<td>Urban</td>
<td>96%</td>
<td>97%</td>
<td>99%</td>
<td>SOWC 1996–2010</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>65%</td>
<td>75%</td>
<td>84%</td>
<td>World health statistics 2010</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>99%</td>
<td>84%</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td>Access to improved sanitation facilities</td>
<td>Urban</td>
<td>81%</td>
<td>84%</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>35%</td>
<td>36%</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>69%</td>
<td>75%</td>
<td>80%</td>
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### Education

<table>
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<th>Indicator</th>
<th>Sex</th>
<th>1992</th>
<th>2005</th>
<th>2008</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school enrolment (7–14 years)</td>
<td>Male</td>
<td>79.9%</td>
<td>94.1%</td>
<td>94.9%</td>
<td>SOWC</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>82.7%</td>
<td>94.7%</td>
<td>94.9%</td>
<td>Government of Brazil&lt;sup&gt;144&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>81.4%</td>
<td>94.4%</td>
<td>94.4%</td>
<td></td>
</tr>
<tr>
<td>Medium school enrolment (15–17 years)</td>
<td>Male</td>
<td>15.1%</td>
<td>40.6%</td>
<td>44.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>21.3%</td>
<td>50.1%</td>
<td>56.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>18.2%</td>
<td>45.3%</td>
<td>50.4%</td>
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### Poverty

<table>
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<tr>
<th>Indicator</th>
<th>1990</th>
<th>2008</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>Proportion of population below $1 (PPP) per day</td>
<td>16%</td>
<td>5%</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
</tbody>
</table>

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<sup>142</sup> Worldwide prevalence of anaemia 1993–2005 WHO Global Database on Anaemia

<sup>143</sup> Percentage of people aged 15–49 years of age who are HIV infected

Figure 1.1 Brazil population growth 1996–2009
Source: TradingEconomics.com

Figure 1.2 Brazil Food Production Index 1996–2008
Source: TradingEconomics.com

Figure 1.3 Brazil economic (GDP) growth 1996–2008
Source: TradingEconomics.com
2. Peru fact sheet

Table 2 Peru nutrition, mortality, health coverage, morbidity, environment, education and poverty indicators 1995–2009

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight rates</td>
<td>7.8%</td>
<td>7.1% [4.9%]</td>
<td>6% [4.2%]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute malnutrition rates</td>
<td>1.1%</td>
<td>0.9% [1.1%]</td>
<td>0.6% [0.6%]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive breastfeeding up to 6 months</td>
<td>53%</td>
<td>67.2%</td>
<td>63.9%</td>
<td>69.9%</td>
<td></td>
</tr>
<tr>
<td>Proportion of the population below the minimum level of dietary energy consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MORTALITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>1990</td>
<td>2000</td>
<td>2008</td>
<td></td>
<td>Source</td>
</tr>
<tr>
<td>Under-five mortality rate</td>
<td>81</td>
<td>47</td>
<td>24</td>
<td></td>
<td>SOWC</td>
</tr>
<tr>
<td>Maternal mortality ratio</td>
<td>220</td>
<td>160</td>
<td>120</td>
<td>98</td>
<td>WHO, UNICEF, UNFPA, World Bank</td>
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</table>

<table>
<thead>
<tr>
<th>HEALTH COVERAGE</th>
<th>1995</th>
<th>2009</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles: fully immunised 1 yr olds</td>
<td>71%</td>
<td>95%</td>
<td>SOWC 1996–2010</td>
</tr>
<tr>
<td>Micronutrients</td>
<td>1995</td>
<td>2008</td>
<td>Source</td>
</tr>
<tr>
<td>Vitamin A supplementation</td>
<td>no data</td>
<td>no data</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>1995</td>
<td>2008</td>
<td>Source</td>
</tr>
<tr>
<td>Antenatal care coverage at least once</td>
<td>84%</td>
<td>91%</td>
<td>SOWC 1996–2010</td>
</tr>
<tr>
<td>Deliveries assisted by qualified health staff</td>
<td>53%</td>
<td>71%</td>
<td>MDG Report Card ODI 2010</td>
</tr>
<tr>
<td>Iodine in households</td>
<td></td>
<td>2004</td>
<td>Source</td>
</tr>
<tr>
<td>Households consuming adequate iodized salt</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

145 Anthropometrical data is expressed in NCHS/WHO references to allow comparisons from 1995. In addition, data expressed with the WHO standards references 2006 is shown since it is available
146 Probability of dying by age 5 per 1,000 live births
147 Deaths per 100,000 live births
149 Percentage of children 6–59 months old receiving two doses of vitamin A supplementation during calendar year
Undernutrition: What works?

### MORBIDITY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1996</th>
<th>2000</th>
<th>2009</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia: children 6–59 months (Hb&lt;110 g/L)</td>
<td>56.8%</td>
<td>49.6%</td>
<td>37.2%</td>
<td>DHS 2000, ENDES Continua 2009</td>
</tr>
<tr>
<td>Anaemia: non pregnant women 15–49 yrs</td>
<td>35.7%</td>
<td>31.5%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>HIV(^{150})</td>
<td>0.4%</td>
<td>0.5%</td>
<td></td>
<td>MDG Report Card. ODI 2010</td>
</tr>
</tbody>
</table>

### ENVIRONMENT

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Area</th>
<th>1996</th>
<th>2007</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to improved drinking water</td>
<td>Urban</td>
<td>81.1%</td>
<td>85.3%</td>
<td>SOWC 1996–2010, World health statistics 2010</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>6.9%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>58.9%</td>
<td>69.2%</td>
<td></td>
</tr>
<tr>
<td>Access to improved sanitation facilities</td>
<td>Urban</td>
<td>60%</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>24.6%</td>
<td>13.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>49.4%</td>
<td>57.9%</td>
<td></td>
</tr>
</tbody>
</table>

### EDUCATION

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1998</th>
<th>2004</th>
<th>2008</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school enrolment (6–11 years)</td>
<td>90.6%</td>
<td>90.9%</td>
<td>94.2%</td>
<td>MDG report Peru 2008</td>
</tr>
</tbody>
</table>

### POVERTY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1990</th>
<th>2008</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of population below $1 (PPP) per day</td>
<td>2%</td>
<td>8%</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
</tbody>
</table>

#### Figure 2.1 Peru population growth 1996–2009

Source: TradingEconomics.com

\(^{150}\) Percentage of people aged 15–49 years of age who are HIV infected
Figure 2.2 Peru Food Production Index 1996–2008
Source: TradingEconomics.com

Figure 2.3 Peru economic (GDP) growth 1996–2008
Source: TradingEconomics.com
### Malawi fact sheet

Table 3 Malawi nutrition, mortality, health coverage, morbidity, environment, education and poverty indicators 1995–2009

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic malnutrition rates</td>
<td>48.3%</td>
<td>49%</td>
<td>48%</td>
<td>46%</td>
<td>MICS (1995, 2006)</td>
</tr>
<tr>
<td>Underweight rates</td>
<td>30%</td>
<td>25%</td>
<td>22%</td>
<td>21%</td>
<td>DHS (2000, 2004)</td>
</tr>
<tr>
<td>Acute malnutrition rates</td>
<td>7%</td>
<td>5.5</td>
<td>5%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Exclusive breastfeeding up to 6 months</td>
<td>44%</td>
<td>53%</td>
<td>57%</td>
<td></td>
<td>DHS (2000, 2004)</td>
</tr>
<tr>
<td>Proportion of the population below the minimum level of dietary energy consumption</td>
<td>45%</td>
<td>29%</td>
<td></td>
<td>MDG Report Card. ODI 2010</td>
<td></td>
</tr>
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<table>
<thead>
<tr>
<th>MORTALITY</th>
<th></th>
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<th></th>
<th></th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under-five mortality rate</td>
<td>225</td>
<td>178</td>
<td>100</td>
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<table>
<thead>
<tr>
<th>HEALTH COVERAGE</th>
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<th></th>
<th></th>
<th></th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>Immunization</td>
<td>1996</td>
<td>2000</td>
<td></td>
<td></td>
<td>Source</td>
</tr>
<tr>
<td>Measles: fully immunised 1 yr olds</td>
<td>67.9%</td>
<td>84%</td>
<td></td>
<td></td>
<td>DHS 1996, MICS 2006</td>
</tr>
<tr>
<td>Vitamin A supplementation</td>
<td>15.7%</td>
<td>65.3%</td>
<td>65%</td>
<td>95%</td>
<td>DHS (KAPI) 1996, DHS (2000, 2004), SOWC 2008</td>
</tr>
<tr>
<td>Women</td>
<td>1990</td>
<td>2007</td>
<td></td>
<td></td>
<td>Source</td>
</tr>
<tr>
<td>Antenatal care coverage at least once</td>
<td>90%</td>
<td>92%</td>
<td></td>
<td></td>
<td>MDG Report Card. ODI 2010</td>
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<thead>
<tr>
<th>MORBIDITY</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia: children 6-59 months (Hb&lt;110 g/L)</td>
<td>1995–2000</td>
<td>2004</td>
<td>2008</td>
<td>no data</td>
<td>DHS 2004</td>
</tr>
<tr>
<td>Anaemia: non pregnant women 15-49yrs</td>
<td>no data</td>
<td>45%</td>
<td>no data</td>
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<td></td>
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<tr>
<td></td>
<td>13%</td>
<td>14.2%</td>
<td>12%</td>
<td>11.9%</td>
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---

151 Data is expressed in NCHS/WHO references to allow comparison. WHO Growth Child Standards data is shown in [ ].
152 Probability of dying by age 5 per 1,000 live births
153 Deaths per 100,000 live births
155 Percentage of children 6–59 months old receiving a dose of vitamin A supplementation during the last 6 months
156 Percentage of people aged 15–49 years of age who are HIV infected
ENVIRONMENT

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Area</th>
<th>1990</th>
<th>2008</th>
<th>Source</th>
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<tbody>
<tr>
<td>Access to improved drinking water</td>
<td>Urban</td>
<td>90%</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>33%</td>
<td>77%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>40%</td>
<td>80%</td>
<td>JMP water supply and sanitation UNICEF</td>
</tr>
<tr>
<td>Access to improved sanitation facilities</td>
<td>Urban</td>
<td>50%</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>41%</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>42%</td>
<td>56%</td>
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EDUCATION

<table>
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<tr>
<th>Indicator</th>
<th>1991</th>
<th>2006–2007</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>Primary school enrolment (6-11 years)</td>
<td>49%</td>
<td>88%</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
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POVERTY

<table>
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<th>Indicator</th>
<th>1990</th>
<th>2008</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of population below $1 (PPP) per day</td>
<td>83%</td>
<td>67%</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
</tbody>
</table>

Figure 3.1 Malawi population growth 1996–2009

Source: TradingEconomics.com
Figure 3.2 Malawi Food Production Index 1996–2008
Source: TradingEconomics.com

Figure 3.3 Malawi economic (GDP) growth 1996–2008
Source: TradingEconomics.com

Figure 3.4 Malawi maize production and cereals trade 1999–2007
Source: FAO 2009, Success stories in agricultural production and Food Security: Pathways to success
## 4. Mozambique fact sheet

### Table 1  Mozambique nutrition, mortality, health coverage, morbidity, environment, education and poverty indicators 1995–2009

#### NUTRITION INDICATORS

<table>
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<tr>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Acute malnutrition rates</td>
<td>8%</td>
<td></td>
<td></td>
<td>4%</td>
<td></td>
<td>Figures in [ ] are WHO, otherwise NCHS/WHO</td>
</tr>
<tr>
<td>Exclusive breastfeeding up to 6 months</td>
<td>30%</td>
<td>30%</td>
<td>37%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion of the population below the minimum level of dietary energy consumption</td>
<td></td>
<td></td>
<td></td>
<td>1991</td>
<td>2004</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
<tr>
<td></td>
<td>59%</td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### MORTALITY

<table>
<thead>
<tr>
<th>Children</th>
<th>Under-five mortality rate</th>
<th>Women</th>
<th>Maternal mortality ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>249</td>
<td>1995</td>
<td>890</td>
</tr>
<tr>
<td>1997</td>
<td>201</td>
<td>2000</td>
<td>780</td>
</tr>
<tr>
<td>2008</td>
<td>130</td>
<td>2005</td>
<td>640</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2008</td>
<td>550</td>
</tr>
</tbody>
</table>

#### HEALTH COVERAGE

<table>
<thead>
<tr>
<th>Immunisation</th>
<th>Measles: fully immunised 1 yr olds</th>
<th>Micronutrients</th>
<th>Vitamin A supplementation</th>
<th>Women</th>
<th>Antenatal care coverage at least once</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>59%</td>
<td>2006</td>
<td>2006</td>
<td>2005</td>
<td>1990</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2007</td>
<td>2007</td>
<td>2007</td>
<td>87%</td>
</tr>
</tbody>
</table>

#### MORBIDITY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Anaemia: children 6–59 months (Hb&lt;110 g/L)</th>
<th>Anaemia: non pregnant women 15–49 yrs</th>
<th>HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75%</td>
<td>48%</td>
<td>1997</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2007</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.6%</td>
<td>10.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.5%</td>
<td></td>
</tr>
</tbody>
</table>

---

157 DHS 2003 data was recalculated based on the WHO 2006 standard population  
158 NCHS data for 2008 was not available  
159 Probability of dying by age 5 per 1,000 live births  
160 Deaths per 100,000 live births  
162 Percentage of children 6–59 months old receiving two doses of vitamin A supplementation during calendar year  
163 Percentage of people aged 15-49 years of age who are HIV infected
### ENVIRONMENT

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Area</th>
<th>1997</th>
<th>2007–2008</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to improved drinking water</td>
<td>Urban</td>
<td>30%</td>
<td>40%</td>
<td>Report on the MDG. Mozambique 2010-UNDP</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>40.3%</td>
<td>43.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>37.3%</td>
<td>42.2%</td>
<td></td>
</tr>
<tr>
<td>Access to improved sanitation facilities</td>
<td>Urban</td>
<td>38%</td>
<td>47.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>25.3%</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>29%</td>
<td>42%</td>
<td></td>
</tr>
</tbody>
</table>

### EDUCATION

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1991</th>
<th>2006–2007</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school enrolment (6-11 years)</td>
<td>42%</td>
<td>76%</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
</tbody>
</table>

### POVERTY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1997</th>
<th>2010</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of population below $1 (PPP) per day</td>
<td>70%</td>
<td>54%</td>
<td>World Bank</td>
</tr>
</tbody>
</table>

**Figure 4.1  Mozambique population growth 1996–2009**

Source: TradingEconomics.com
Undernutrition: What works?

Figure 4.2 Mozambique Food Production Index 1996–2008
Source: TradingEconomics.com

Figure 4.3 Mozambique economic (GDP) growth 1996–2009
Source: TradingEconomics.com
5. Bangladesh fact sheet

Table 1 Bangladesh: Bangladesh nutrition, mortality, health coverage, morbidity, environment, education and poverty indicators 1995–2009

### NUTRITION INDICATORS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight rates</td>
<td>56%</td>
<td>48%</td>
<td>48%</td>
<td>46%</td>
<td>43.5%</td>
<td>[43.2%] [37.4%]</td>
</tr>
<tr>
<td>Acute malnutrition rates</td>
<td>18%</td>
<td>10%</td>
<td>12%</td>
<td>16%</td>
<td>13.1%</td>
<td>[14.5%] [17.4%]</td>
</tr>
<tr>
<td>Exclusive breastfeeding up to 6 months</td>
<td>45%</td>
<td>46%</td>
<td>42%</td>
<td>43%</td>
<td>48.7%</td>
<td>[39.9%] [37.4%]</td>
</tr>
<tr>
<td>Proportion of the population below the minimum level of dietary energy consumption</td>
<td>36%</td>
<td>27%</td>
<td></td>
<td></td>
<td></td>
<td>MDG Report Card. ODI 2010</td>
</tr>
</tbody>
</table>

### MORTALITY

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>2007</th>
<th>Source</th>
</tr>
</thead>
</table>

### HEALTH COVERAGE

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2007</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunisation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles: fully immunised 1 yr olds</td>
<td>62%</td>
<td>88%</td>
<td>MDG Report Card. ODI 2010 SOWC 2000</td>
</tr>
<tr>
<td>Vitamin A supplementation169</td>
<td>44%</td>
<td>40%</td>
<td>70%</td>
</tr>
<tr>
<td>Women</td>
<td>1990</td>
<td></td>
<td>2007</td>
</tr>
<tr>
<td>Antenatal care coverage at least once</td>
<td>26%</td>
<td>51%</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
<tr>
<td>Households consuming adequate iodized salt</td>
<td>44%</td>
<td>70%</td>
<td>70%</td>
</tr>
</tbody>
</table>

---

164 Child and mother nutrition survey, UNICEF
165 Household Food Security and Nutrition Assessment in Bangladesh 2009
166 Probability of dying by age 5 per 1,000 live births
167 Deaths per 100,000 live births
169 % of children 6-59 months old receiving two doses of vitamin A supplementation during calendar year
MORBIDITY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2004</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaemia: children 6–59 months (Hb&lt;110 g/L)</td>
<td>68%</td>
<td>UNICEF Country profiles 2009</td>
</tr>
<tr>
<td>Anaemia: non pregnant women 15–49 yrs</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>HIV&lt;sup&gt;170&lt;/sup&gt;</td>
<td>2010</td>
<td>UNAIDS</td>
</tr>
</tbody>
</table>

<0.1%

ENVIRONMENT

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Area</th>
<th>1990</th>
<th>2000</th>
<th>2009</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to improved drinking water</td>
<td>Urban</td>
<td>88%</td>
<td>86%</td>
<td>90.1%</td>
<td>Progress on Sanitation, drinking water, UNICEF 2009, HFSNA 2009</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>76%</td>
<td>77%</td>
<td>96.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>78%</td>
<td>79%</td>
<td>94.8%</td>
<td></td>
</tr>
<tr>
<td>Access to improved sanitation facilities</td>
<td>Urban</td>
<td>59%</td>
<td>57%</td>
<td>59.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>34%</td>
<td>43%</td>
<td>46.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>39%</td>
<td>46%</td>
<td>51.4%</td>
<td></td>
</tr>
</tbody>
</table>

EDUCATION

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1996</th>
<th>2003</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school enrolment (6–11 years)</td>
<td>69%</td>
<td>83%</td>
<td>SOWC 1996–2009</td>
</tr>
</tbody>
</table>

POVERTY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1990</th>
<th>2008</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of population below $1 (PPP) per day</td>
<td>67%</td>
<td>50%</td>
<td>MDG Report Card. ODI 2010</td>
</tr>
</tbody>
</table>

Figure 5.1 Bangladesh population growth 1996–2009

Source: TradingEconomics.com

<sup>170</sup> Percentage of people aged 15–49 years of age who are HIV infected
Figure 5.2 Bangladesh Food Production Index 1996–2008
Source: TradingEconomics.com

Figure 5.3 Bangladesh economic (GDP) growth 1996–2009
Source: TradingEconomics.com
Annex 2: Bibliography


Undernutrition: What works?


Undernutrition: What works?


Hunger Watch publications

**Water and HIV: Working for Positive Solutions**

**Impacts of the HIV epidemic on access to safe water, sanitation and hygiene in the Copper Belt of Zambia**

This report paints a vivid picture of the water and sanitation needs of individuals and households affected by HIV/AIDS in Zambia. These needs are particular in terms of access, quantity of water and design of facilities. About 40 million people are infected by the virus around the world, and this number must be multiplied greatly to count all those affected. However, water and sanitation facilities and services are grossly lacking in both rural and urban areas of Africa and Asia. Yet, as outlined in this report, Action Against Hunger’s ongoing research and field work offer a range of proven, cost-effective solutions.

Written by Jennifer Organ, Foreword Ben Fawcett, Published 2007 by ACF International Network, 33 pages.

**Hunger and HIV:**

**From food crisis to integrated care**

As part of a humanitarian effort to address the AIDS pandemic, Action Against Hunger works to mitigate the impact of HIV/AIDS on vulnerable communities. HIV has complicated the treatment of severe malnutrition, challenging traditional approaches and requiring substantial investments in field-based research. This publication makes an important contribution to understanding the linkages between HIV/AIDS and hunger by highlighting Action Against Hunger’s vital research in Malawi.

Written by Claire de Menezes, Susan Thurstans, Pamela Fergusson and Nynke Nutma, Foreword by Anne Nesbitt Former Associate Professor, Department of Community Health, University of Malawi. Photos by Susana Vera, Edited by Samuel Hauenstein Swan, Published 2007 by ACF International Network, ISBN: 978-0-955773-1-8, 73 pages. Available in pdf format only.

**Hunger Watch Report 2007–08: The Justice of Eating:**

**The struggle for food and dignity in recent humanitarian crises**

The first Hunger Watch report from Action Against Hunger presents an accessible jargon-free account of the causes and consequences of malnutrition around the world. Combining thorough analysis with personal testimonies from struggling families, this report assesses the underlying causes of hunger in several African countries. A powerful indictment of local institutions, national governments, international agencies, and the socioeconomic forces complicit in the persistence of world hunger, this report argues that an end to malnutrition is fully possible with sufficient political will.

Undernutrition: What works?

**Seasons of Hunger:**

**Fighting cycles of quiet starvation among the world’s rural poor**

Documenting hunger in three countries – India, Malawi and Niger, this book explores the issue of seasonality and why the world does not react to a crisis that we know will continue year after year. Personal stories and country-wide data show the magnitude of seasonal hunger, which is caused by annual cycles of shrinking food stocks, rising prices and lack of income. This hidden hunger pushes millions of children to the brink of starvation, permanently stunting their development, weakening their immune system and opening the door for killer diseases.


**Changing Climate, Changing Lives**

A joint report launched by IDS, Action Against Hunger and Tearfund reveals that pastoral households in Ethiopia and Mali are finding it increasingly difficult to tackle current climate risks and meet their food and nutrition needs. The focus of the report is local perceptions of changes in climate shocks and stressors. It examines how people respond to these changes, and what constraints they face. Examining local perceptions and responses to change is important because these can help to identify more precisely what support people require to strengthen their climate resilience. It will also help identify specific constraints that different actors and groups face, and also uncover a more holistic understanding of adaptation in relation to particular socio-economic, political or historical contexts.

Written by Lars Otto Naess, Morwenna Sullivan, Jo Khinmaung, Philippe Crahay and Agnes Otzelberger, Published 2010 by ACF International, Tearfund, International Development Institute, 57 pages.

**Feeding Hunger and Insecurity**

**Field analysis of volatile global food commodity prices, food security and child malnutrition**

This publication presents field analysis of volatile global food commodity prices, food security and child malnutrition.

Rapid price increases in early 2008 led to riots in over 30 countries that sparked international calls for action and repositioned as global priorities the need to combat hunger and reinvigorate local agriculture. Action Against Hunger’s in-depth field study, *Feeding Hunger and Insecurity*, reminds us the crisis is far from over and that urgent funding is needed to translate global policy into effective, targeted responses addressing the needs of those most affected.
